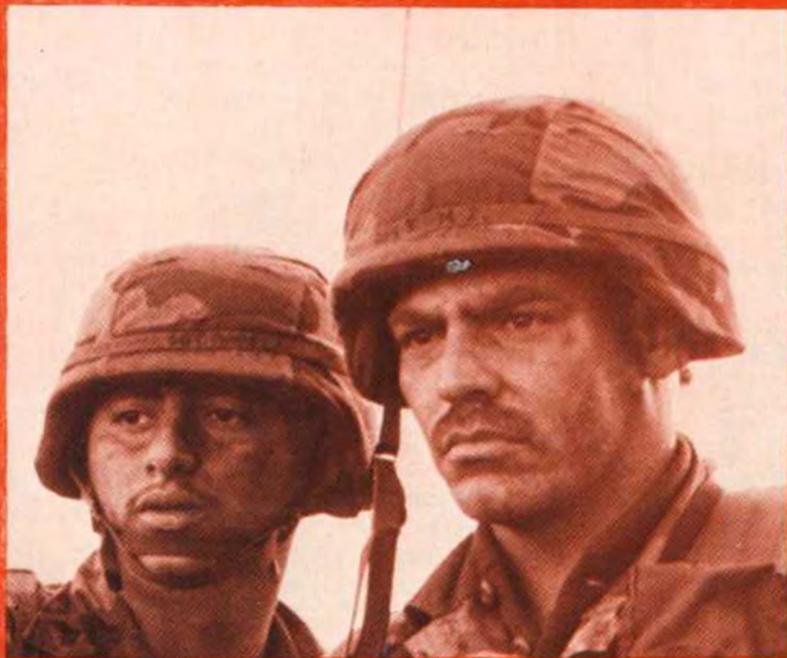


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Infantry

A PROFESSIONAL JOURNAL FOR THE COMBINED ARMS TEAM



Infantry

A PROFESSIONAL JOURNAL FOR THE COMBINED ARMS TEAM

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ARTICLES

12 A PERSONAL REFLECTION ON LEADERSHIP

Lieutenant Colonel Henry G. Gole

16 ON BEING A STAFF OFFICER

Major Frederick Zilian, Jr.

20 WRITING FOR PUBLICATION

Marie B. Edgerton

Albert N. Garland

26 THE ASSAULT RIFLE

Captain Noyes B. Livingston III

30 INFANTRY IN ACTION: HEARTBREAK RIDGE

Russell A. Gugeler

FORUM AND FEATURES

6 THE DIFFERENCE PRIDE MAKES

Captain James W. Tompkins, Jr.

7 ROBOTIC INFANTRYMEN

John Flados

9 PERSONNEL DECONTAMINATION

Lieutenant Robert C. Neumann

10 THE COMPANY XO

Captain Harold E. Raugh, Jr.

TRAINING NOTES

33 DRAGON TRAINING UPDATE

Major Curtis L. Devan

35 GOOD MAINTENANCE

Captain Arthur A. Durante

37 MORTARS IN MOUT

Major Thomas H. Whitley

Captain Carl W. Riester

38 MOTORCYCLE SCOUTS

Major Frederick D. Ledfors

Captain Patrick J. O'Connor

DEPARTMENTS

2 COMMANDANT'S NOTE

3 INFANTRY NEWS

40 ENLISTED CAREER NOTES

42 OFFICERS CAREER NOTES

45 BOOK REVIEWS

49 LETTERS

FRONT COVER

Man, with a weapon in his hands, will continue to be the decisive factor on the battlefield. He can be assisted and augmented by machines, but he cannot be replaced by any machine.



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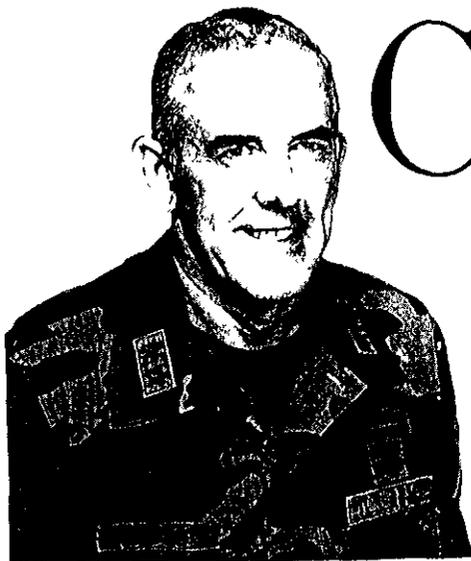
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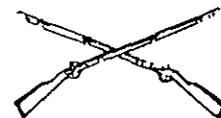
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Commandant's NOTE



Major General James J. Lindsay
Chief of Infantry

It is a genuine honor and privilege to be your new Chief of Infantry and Commandant of the Infantry School.

In my first few days here at Benning I have been struck by the multiplicity of missions and issues with which the Infantry Center must deal. Obviously, to ensure that we resolve the real gut issues we will have to establish some priorities. At this point, I see our major priorities as these:

- **The Infantry soldier.** The Infantry soldier produced by Fort Benning over the past two years is the best I have ever seen. That must continue — recognizing that based on feedback from you, we will fine-tune his training as we move ahead.

- **The Infantry leader.** The greatest force multiplier in the history of our profession is the smart and tough leader who knows how to think on his feet (or while moving 40 mph in a Bradley) and make smart and timely decisions. Thus, the Infantry School must continue to produce officer and NCO leaders who fit that mold. Equally important, these leaders must know how to train, maintain, and prepare their units in the face of ever-present distractions and diversions. Just as we expect them to fight outnumbered and win, they must also know how to train in the face of the sometimes overwhelming distractions to training.

- **Weapons and equipment.** The best soldiers and leaders in the world deserve the best in weapons and equipment that our advanced technology can produce. In some cases, we have done a very good job of providing the best weapons and equipment: the Bradley, the TOW II, the squad automatic weapon, and the improved M16. In other areas much remains to be done: we must come up with a better short and medium range tank killer, we need to lighten the load of the infantry soldier, and we need to provide more reliable means of communications. And finally,

we must see that new equipment and systems arrive in a unit in complete, ready-to-fight packages.

- **Tactics and doctrine.** We must ensure that our tactics and doctrine fully exploit the total capability of our new weapons, our C³ systems, and our improved mobility. And because we will be in a transition period with mixes of equipment (Bradley/M113, M1/M60, M151/HMMWV) for the foreseeable future, we must be capable of fighting these units as integrated teams. In the same vein, strategic deployment limitations dictate that we get the most out of the combat capability of our light forces. We will work closely with the 9th Infantry Division in this effort.

- **Standardization.** We will never have all the resources we need, especially *time*. One area that more than any other offers us the opportunity to make more time available is standardization. We waste an inordinate amount of time training soldiers in "the way we do things here." There are wide variances in procedures even within the same battalion, brigade, or division. We can and must standardize drills, combat loads, and field operating procedures.

The team on board here at Fort Benning is most impressive. I am especially pleased to have BG Ed Burba with us. He brings with him an Army-wide reputation as a thinker and a trainer. We will work closely with the other members of the combined arms team.

Finally, we need your ideas, suggestions, and feedback if we are to successfully meet the above challenges. Knowing that those of you "in the trenches" have more than enough to do in handling the daily training and maintenance in your units, I realize that it is sometimes difficult to take time to worry about the challenges facing our branch as a whole. But, if we are to be successful, we must have input from those of you who know the situation and accordingly can offer the best ideas and feedback.

INFANTRY NEWS



SINCE EARLY 1980, the Infantry School's Infantry Liaison Team (ILT) has been visiting infantry units in the field. The team's purpose is to find out first-hand what those units think of the School's course graduates (IOAC, IOBC, ANCOG, and OSUT, for example), its training literature (such as ARTEPs and Soldier's Manuals), and its tactical and doctrinal literature. The visits not only help the School to improve the way it does things, it also gives the people in the field a chance to voice their opinions about what the School is doing.

Usually, the ILT has three people, and its membership is tailored for the unit it is to visit and that unit's probable areas of interest — maintenance, perhaps, or tactics, or training developments. During its visit, the ILT members interview numerous members of the unit, from its commander to selected soldiers from its ranks. It then develops, through various statistical analysis techniques, the data it collects from these interviews to show how that particular unit perceives the School's graduates and its publications.

When the ILT returns from a visit, its chief prepares a trip report that lists the specific areas of the School that received either positive or negative marks. Copies of his report are sent to the various interested parties in the School so that they can see and comment on that unit's reactions to what the School is turning out.

The ILT also provides limited amounts of new training materials to the units they visit. For instance, the team takes with it a number of fact sheets that cover such subjects as the Basic Rules for Combat, the Army Standardization Program, and how to obtain programmable chips for the TI-59 mortar calculator. Team mem-

bers also try to answer specific questions about the Infantry — if they have been given the questions beforehand — and sometimes can help a unit solve specific training difficulties.

Thus far in Fiscal Year 1983, the ILT has visited units in Panama and Germany, units at Forts Lewis and Campbell, and units of the California National Guard. Future trips are planned to Forts Dix, Polk, Hood, and Bragg.

Additional information about the School's ILT is available from the Directorate of Evaluation and Standardization, USAIS, Fort Benning, Georgia 31905, AUTOVON 835-1589.

AMONG THE MANY "NEW" AND INTERESTING items now being shown in the National Infantry Museum is the largest collection in this country of World War II Italian arms and equipment.

The Museum also has large exhibits of German and Japanese items, and it has expanded its Vietnamese and Korean exhibits. There are other exhibits of foreign items as well — uniforms, weapons, and other military articles from France, England, Canada, Spain, Russia, Communist China, and Switzerland. One especially interesting foreign item is a Russian truck, 1948 model, which was captured in Korea in 1950. In the back of the truck is a Russian 120mm mortar, which was also captured in Korea.

The Museum provided a special exhibit on the Medal of Honor for the Columbus Post Office in connection with the issuance of a Medal of Honor Commemorative Stamp by the U.S. Postal Service. It also provided another exhibit for the dedication of

the Vietnam War Memorial in Eufaula, Alabama, on Memorial Day. General William Westmoreland was the principal speaker for the latter occasion.

An important and original oil painting by W. Gilbert Gaul depicting World War I soldiers was recently purchased by the Museum. And a number of pieces of original art work have been donated to the Museum by INFANTRY Magazine, some of which are now on display. Of excellent quality, these will be invaluable to the Museum in portraying the history of the Infantry.

A unique World War II German weapon that is currently on loan to the Museum is a small pistol concealed in a belt buckle. The belt buckle swings open with a flick of a finger, which moves the pistol into firing position. The gun is then fired with another flick of a finger.

All runners are invited to participate in the Third Annual National Museum Five-Mile Run in October. They can obtain information by calling the Museum at the number listed below.

The National Infantry Museum Society, which was 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, Georgia 31905, AUTOVON 835-2958, or commercial 404/545-2958.

THE NEBRASKA ARMY NATIONAL GUARD became the first Reserve Component unit to use

the mechanized platoon testing program with MILES equipment. The aim of the program was to see if a Reserve Component unit could use the test effectively for combat training purposes. In the test, which was undertaken this past June by the 1st Platoon, Company A, 2d Battalion, 134th Infantry, the Guardsmen proved that they could successfully complete all of the 13 problems thrown at them, including planning operations, fire control, maneuvering, reacting to opposing forces, leadership, teamwork, and a tactical road march.

THE BRITISH ARMY has adopted a new helmet for its parachute forces. The helmet was developed to provide greater ballistic protection and comfort than the conventional steel helmet.

It has a completely smooth surface



that prevents snagging by parachute cords, a soft lining, and reduced weight — only 1.2 kilograms.

The shell is made of resin-impregnated nylon fabric. Internal padding, a height adjuster, and two types of chinstraps — general purpose and winter — allow for more individual comfort.

THE ARMY HAS RECEIVED 70 of the LAW 80 antiarmor weapons, which were ordered as part of a joint Army-Marine Corps evaluation that began in May 1983.

LAW 80 is a British weapon and was originally developed for use by the British military services. It is one

of a number of weapons being tested at Aberdeen Proving Ground in a formal evaluation that could lead to the selection of a new light antiarmor weapon for the two U.S. military services.

LAW 80 is a shoulder-fired weapon that consists of a single preloaded rocket and a built-in spotting rifle for adjusting aim before firing the rocket. It weighs less than 20 pounds, is approximately five feet long with its telescoping launch tube extended, and can be carried by infantrymen in addition to their usual individual weapons. It is discarded after its single firing.

THE ARMY'S TRAINING SUPPORT CENTER has distributed its new 1983 edition of its Extension Training Materials Catalog. The red-covered eight-chapter catalog lists those ETM products that support various phases of Army training.

Active Army or Reserve Component units that have not received the catalog, or that need additional copies, should write to: Department of the Army, AG Publication Center (USAAGPC), 2800 Eastern Boulevard, Baltimore, Maryland 21220. The order should be submitted on DA Form 4569; a publications standard single account (SSA) number is required and may be obtained from the unit's publications stockroom.

Comments, questions, or suggestions concerning the catalog should be sent to the Commander, U.S. Army Training Support Center, ATTN: ATIC-ETO-PP, Fort Eustis, Virginia 23604, or called in to AUTOVON 927-4701, or commercial 804/878-4701.

DEPARTMENT OF THE ARMY Pamphlet 350-18, Individual Handbook on Physical Fitness, was published on 1 May 1983. It contains excellent guidance for soldiers who are not participating in an organized physical fitness program.

THE IMPROVED 81mm MORTAR, one of the few weapon systems to undergo a joint developmental program between the United States and another country, has completed its developmental testing at Aberdeen Proving Ground.

The "I-81" is made up of a combination of selected components from mortars from both the United States and the United Kingdom. Its baseplate, M64 sight unit, fire control equipment, and multi-option fuze on the high explosive round are from the United States. Its cannon, bipod mount, and high explosive rounds minus the fuzes are from the United Kingdom.

The I-81 has a greater range than the present U.S. 81mm mortar — 5,600 meters for the I-81 to 4,800 meters for the present mortar — and has a sustained rate of fire of 12 to 15 rounds a minute. It weighs six pounds less than the present 81mm mortar and is transportable.

The M734 multi-option fuze is from the U.S. 60mm lightweight company mortar system and offers four ways of functioning — proximity, near-surface, impact, and delay.

A NEW ARMY CORRESPONDENCE COURSE CATALOG (DA Pamphlet 351-20) was mailed out in April 1983. This catalog, dated 1 March 1983, replaces all 22 volumes of the previous DA Pamphlet 351-20 series.

Active Army soldiers, sergeant and below, get one promotion point for every five hours of correspondence course credit they earn. National Guard and Army Reserve officers and enlisted soldiers receive one retirement point for every three hours of correspondence course credit they earn.

Units that have not yet received the new catalog or that need extra copies can order directly from the AG Publications Center, 2800 Eastern Boulevard, Baltimore Maryland 21220. A completed DA Form 4569 is required, as is a publications standard single account number.

Questions about the Army's correspondence courses should be addressed to the Institute for Professional Development, U.S. Army Training Support Center, Newport News, Virginia 23628.

CREWMEN FROM Company D, 1st Battalion, 41st Infantry, at Fort Hood, recently swam all 13 of their Bradley Fighting Vehicles. The exercise went off without a hitch as each vehicle conducted a pre-dip and then a free float.

Unlike the M113 carrier, which swims with all of its hatches closed,



the Bradley swims with its hatches open. The Bradley also uses a swim barrier, which resembles an inverted skirt and wraps around the entire top of the vehicle. This barrier prevents any large amounts of water from washing over the deck and into the open hatches.

If water should get into the vehicle's interior, bilge pumps would get rid of it and keep the Bradley afloat.

THE ARMY HAS LET A CONTRACT TO AM General Corporation of Detroit to buy a total of 54,973 high mobility, multi-purpose wheeled vehicles (HMMWVs, or "HUMVEEs") during the next five years. (See *INFANTRY*, November-December 1981, page 5.)

The HUMVEE will replace vehicles in the ¼-ton to 1¼-ton range, including jeeps, M880-series pickup trucks, M561 Gama Goat all-terrain vehicles, and M274-series Mule platform vehicles. Together with the CUCV, a light duty commercial pickup truck, the

two will eventually replace some 112,000 vehicles that are near the end of their expected lifespans.

The HUMVEE comes with a basic chassis that can be fitted with different body designs. The three main HUMVEE configurations are the weapons carrier, the utility truck, and the ambulance.

THE ARMY'S TRAINING AND DOCTRINE COMMAND is developing and publishing a series of operational concepts on logistics and other subjects. Once approved, they are published as TRADOC pamphlets in the 525-series. Thus far in 1983, seven such pamphlets have been published: 525-22, Medical Support Operations in a Chemical Environment (31 January 1983); 525-23, Battlefield Spectrum Management (18 February 1983); 525-24, Public Affairs (4 February 1983); 525-25, Wartime Personnel Replacement Operations (21 February 1983); 525-26, Religious Support in Combat Areas (15 March 1983); 525-27-1, Forward Support Maintenance (21 May 1983); and 525-31, Civil Affairs (10 June 1983).

A concept is now being developed at the Army Logistics Center that seeks to replace the Army's present four-category maintenance system with a three-category system. The new system is being designed to be more responsive, to improve operational readiness, and to increase battlefield mobility and flexibility. If the concept is adopted, the three maintenance categories will be:

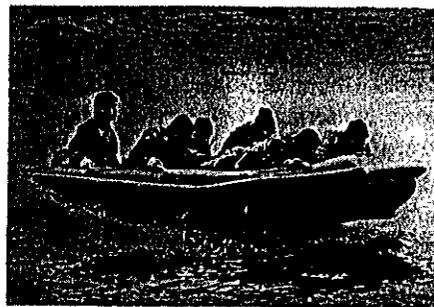
- **Unit Maintenance.** The maintenance tasks performed are the same as current organizational maintenance.

- **Intermediate Maintenance.** This category has two levels — forward and rear. Intermediate forward equates to the present direct support maintenance category. Forward maintenance units will be organic to the divisions, assigned to the corps, and located at echelons above corps. Intermediate rear replaces general support, except that all intermediate rear

units will be at echelons above corps. The relocation of the traditional general support maintenance mission from the corps area should significantly improve mobility.

- **Depot Maintenance.** This category has not changed.

THE ARMY, NAVY, AND MARINE CORPS are taking part in a joint project to develop a new military reconnaissance boat, called the Military Amphibious Reconnaissance System (MARS). An inflatable craft that can carry a squad of seven men and their equipment, it can be pushed out of the hatch of a nuclear submarine or dropped from a C-130 cargo plane or from a helicopter. It can be inflated in less than a minute and completely assembled in less than half an hour.



What makes this craft unique, though, is its outboard motor. The 35-horsepower engine is completely submersible, and has a special valve that allows the operator to drain water from the fuel system and restart the motor if it has been dropped over the side of the boat or if the craft is deployed under water. It is believed to be the only engine of its kind with this capability. The motor has a solid-state ignition and a range of 20 miles at its top speed of 25 miles per hour.



FORUM & FEATURES



The Difference Pride Makes

CAPTAIN JAMES W. TOMPKINS, JR.

For some time now, I, like all other Army leaders, have been exposed to carefully prepared classes, seminars, field manuals, articles, historical examples, and personal opinions on the role of good leadership in the development of great military units. After some observations of my own, I have concluded that high on the list of the elements that make up good leadership should be individual and collective pride. Carefully developed and sustained, a soldier's pride in himself, his equipment, and his unit can bring great benefits in efficiency and it can reduce the need for prodding, counseling, or supervising soldiers in their routine and special tasks.

Even in my limited experience, I have had occasion to notice the difference pride makes. When I was in Korea, for example, the 2d Infantry Division conducted its annual Indian Olympics. The effort of organizing and conducting this competition often seemed an unwelcome chore to junior leaders who felt they already had too much to do. Nevertheless, I found that the increased proficiency of the Division's units during their later field training exercises and

ARTEPs made running the competition well worth the effort. This increased proficiency was demonstrated not only by the mortar crew that won the Olympic title but by all the other mortar crews, which were convinced that they were just as good as the crew that won.

IMPROVEMENT

This improvement showed even in events that did not measure MOS skills, when, for example, the participants had individually or collectively taken pride in their accomplishments on the playing field and had extended this pride into their everyday jobs.

More recently, with the 24th Infantry Division, I observed the outstanding performance of some of the Division's soldiers during the exercise called Bright Star 82 in Egypt. The soldiers who took part maneuvered so expertly in the desert and carried out their missions with such precision that they gave the impression they had spent all their training time in the sands of the Sahara rather than in the pine woods of Georgia. They took excellent care of themselves and their

equipment, there were no serious accidents or injuries throughout the aggressive exercise, and their base camp was always immaculate. In short, they showed a tremendous sense of pride in what they were doing.

This success was not totally because of their pride, of course. A great deal of hard training and sound planning was also involved. But the sense of pride that had been instilled in the soldiers earlier did provide a catalyst for the successful execution of the exercise.

This pride-building had been carefully and vigorously conducted back at Fort Stewart. From the beginning of the planning stage, the entire chain of command had emphasized to the soldiers that they would have the world's eyes upon them — that they would be representing their nation, their army, and their unit to many people who were unfamiliar with our forces.

The brigade commander had insisted throughout the operation on the highest standards of equipment and personal maintenance. The brigade sergeant-major had seized upon the theme song "We Are Fami-

ly" to form the combat, combat support, and combat service support units into a single proud mass with a common slogan.

The soldiers had painted their equipment in a desert camouflage pattern and, during an inspection on the Division's parade field, had displayed their newly issued desert fatigues to the public for the first time.

Any pride-building process such as this must be carefully planned, created, and sustained. For it to work, the subordinate leaders must understand the plans, too — and the difference pride makes. If they do not understand why a given task is important, a good idea can quickly turn into eyewash for them, especially when added to all the extra efforts they have to put into such a program.

If they are asked to work hard, for example, on a task that leads only to a good appearance, without any im-

provement in function, they are likely to see it as eyewash. But when they are helped to see that if their vehicles, quarters, and soldiers look good, they usually also function well, they are more likely to put their best efforts into the program.

A last-minute effort to put a new coat of paint on a vehicle to impress a visitor may be clearly seen as unnecessary. Likewise, relying totally on a last-minute locker room pitch to stir the troops into a fury before an important training event or inspection will do little to improve performance. But if a unit's leaders have thought through a plan and have started far enough in advance, such an important event can be used as the starting point in pride building. Then, as the unit reaches higher levels of performance, the leaders should keep on insisting that these levels really constitute the unit's day-to-day standards. Thus, maintaining high standards of

performance and appearance day in and day out is a healthy means of building pride, and it will be perceived as such by the soldiers.

Many units in the Army are now benefiting from a healthy sense of pride, and many historical examples also attest to the effect of pride on a unit's effectiveness. Through education, careful planning, vigorous execution and, above all, sustainment of standards, more units can see for themselves the difference pride makes.



CAPTAIN JAMES W. TOMPKINS, JR., recently completed an assignment with the 24th Infantry Division at Fort Stewart and is now attending the CAS³ course at Fort Leavenworth. A graduate of The Citadel, he formerly served with the 1st Battalion, 38th Infantry in Korea and with the 5th Training Brigade at Fort Dix.

Robotic Infantrymen

JOHN FLADOS

The robots are coming! The time is not far off when robotic infantrymen will play important roles on the battlefield in support of their human counterparts. So it is important for today's human infantrymen to know something about what is now taking place in the field of robotic technology and what is expected from that technology in the future.

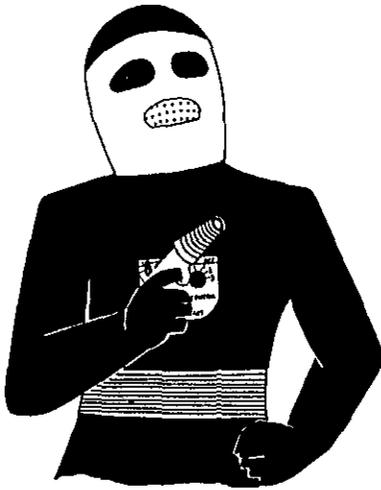
Soldiers already have a number of thinking machines to help them carry out their missions. One obvious example is the hand-held calculator that fire direction center operators use to

process data quickly. Another example is the XM-734 multi-option fuze, which has replaced more than a dozen other fuzes previously used with 81mm mortar rounds. Similar technical advances continue to allow the Army to upgrade its present weapon systems and to make new weapon systems possible.

Robotic vehicles, too, are already being used in several countries in tactical situations. Canada uses its Remote Mobile Investigation (RMI) unit in bomb disposal and hostage situations. In Northern Ireland, the

British Army has been using a robotic vehicle it calls the Wheelbarrow, and the United States Navy is developing a similar vehicle.

Still newer machines that are about ready to make their appearance in the field have a number of very positive attributes. Their hydraulically- or electronically-controlled limbs are stronger than human limbs when performing certain tasks. Advanced microphones give them superior hearing, both focused and unfocused. Image processing lets these robots identify and report anything that moves



within a designated area. Modern video cameras with zoom lenses, starlight scopes, and thermal imagers enable a robot to see as well as, if not better than, any man. Voice chips allow the robots to speak, and they can be programmed to recognize and obey voice commands. Within a few years a robot should be able to understand what is being said around him and to take orders only from authorized sources.

In combat against a human enemy, such robots would have certain advantages. With their several sensory devices, they could try to detect a human enemy by sound, sight, motion, and body heat simultaneously. Once a robot had detected an enemy, its mechanical fire control system could react instantly.

Although robots could never replace the human infantryman on the battlefield, they could certainly support him. Plugged into tactical radar and unattended ground sensors, for instance, these tireless robots could prove invaluable as backups to their human overseers or could release them to carry out other duties. Equipped with a ground laser locator designator, these same machines, either with human supervision or acting alone, could target any intruder with specified fires. And they would be much less vulnerable to any nuclear, bacteriological, or chemical weapons that an opposing force might use.

They could constantly monitor for

NBC weapons and act as early warning systems, and they could be operated by remote control in poisoned areas where no human could survive. Robots could automatically report NBC casualties within their assigned units, and could be used to bring out friendly dead and wounded. (With a terminal or even with computer-recognized voice communication, they could also be used to interpret foreign languages.)

Unlike their human counterparts, robot infantrymen would have none of the usual human failings. They would never trouble their commanders with such problems as desertion, drug and alcohol abuse, sickness, or poor attitude. They would never ignore, misunderstand, or refuse to obey clear, authorized commands.

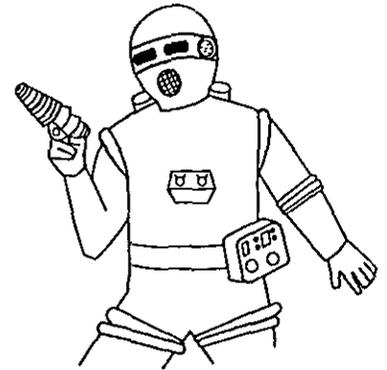
Robots would not hesitate to do something because they were afraid to die, nor would they ever freeze with fear because of something they heard or saw. Like humans, these machines might be hindered by the smoke, noise, confusion, and carnage of a battlefield, but they would not suffer psychologically because of it. It is true that in combat these robots would break down and suffer damage, but they could be replaced just like destroyed vehicles or damaged weapons. (This would be much less of a logistical burden on a unit than the medical treatment, transportation, and rehabilitation human casualties require.) And the training requirements of the robotic replacements would not be nearly as great as those for human replacements.

Thus, expendability would be the robots' greatest advantage, because human beings will never be expendable. Tomorrow, robots could take the place of human soldiers in clearly dangerous situations or could perform extremely hazardous tasks. While the use of robots would not prevent all human casualties, in certain situations, it would reduce the number of these casualties.

The greatest challenge that remains is determining the configuration a

future robot infantryman should have. For a robot that weighs as much as 200 pounds, tracks or wheels might be added for speed, although it would still be inferior to a human when moving over broken ground. If it were given legs, how many would be best? At least one robotic expert envisions a "lizard-like" creation that would combine the good balance, low silhouette, and maneuverability that are needed in most combat situations. (While the technology in this area is still in its infancy, a number of universities are conducting research on the subject.)

Besides tactical mobility, the next



greatest challenge is in powering the robots. The greatest limitation to future battlefield robots now is the requirement that they be either tethered to a power cord or equipped with heavy batteries of limited capacity. Although future electronic advances may require less power, these will probably still be the major limitations.

Even if all of the present theories should hold, human infantrymen probably would still spend a lot of time retrieving their robots from the mud and mire on the next battlefield. So, while the robot could never replace the human ground soldier in battle, hopefully, it would allow him to accomplish his mission with fewer casualties.

JOHN FLADOS is a freelance journalist with a special interest in military subjects. He is a graduate of the University of Texas at Austin.

Personnel Decontamination

LIEUTENANT ROBERT C. NEUMANN

Even after his company succeeds in coming out of a chemically contaminated environment, an infantry company commander will have to face up to and solve a rather large problem. He will have to see that he and his men and all their personal equipment are properly decontaminated.

In all probability, that commander will have to depend on his own eight-man decontamination team to do the job; the division's NBC defense company undoubtedly will be quite busy decontaminating vehicles and other large pieces of equipment.

Here is one way in which a company's decontamination team can handle this problem:

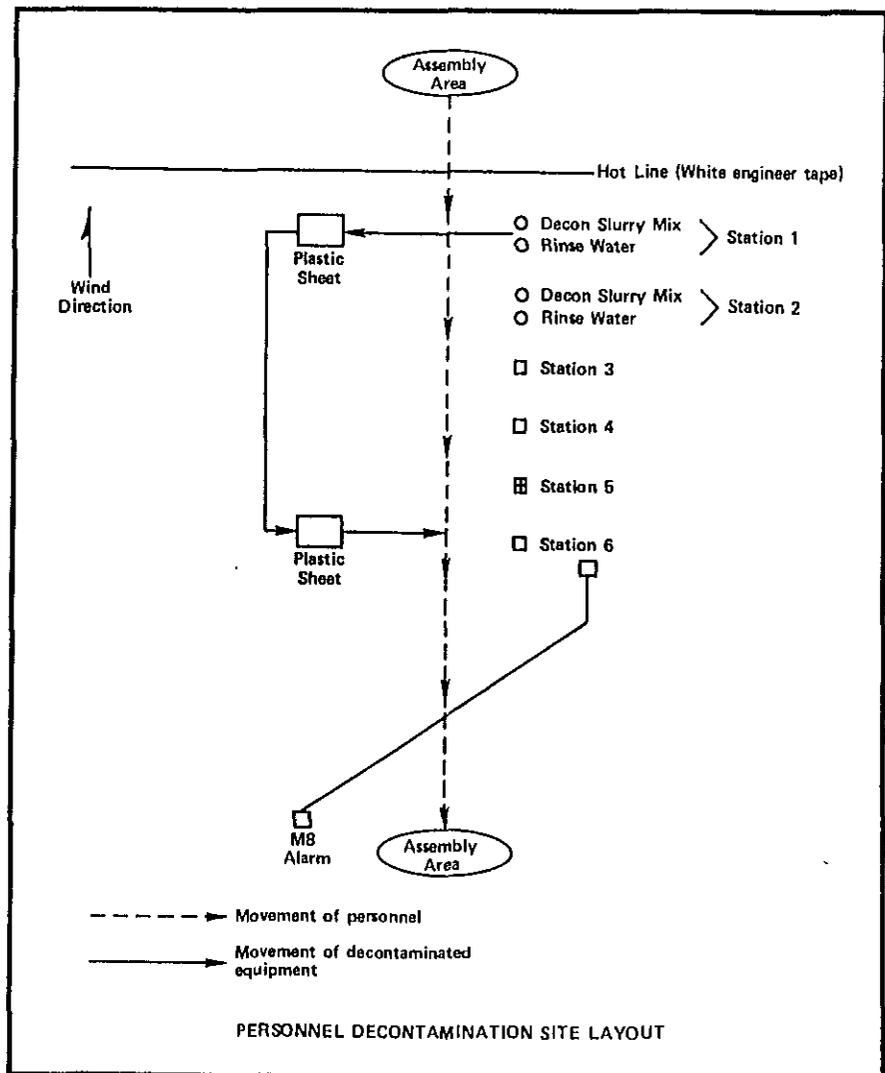
First, the team finds an uncontaminated area at least 50 x 50 meters that has good drainage. Under the direction of its senior noncommissioned officer, the team sets up a series of six stations on that site as shown in the accompanying diagram. One member of the team stays at each station to help the soldiers as they pass through and to make sure they perform each step completely and thoroughly. The soldiers themselves also help each other as necessary at each station using the "buddy" system.

At the first station, the soldiers wash their weapons, helmets, load-bearing equipment, and protective mask carriers, scrubbing each item with a brush for at least one minute. Each piece is then rinsed and placed on a plastic sheet. A member of the

decontamination team inspects the items and, if they have been properly decontaminated, takes them to Station 6.

Still wearing their protective masks (as they will until they reach Station

5), the soldiers move to Station 2 where they decontaminate their protective masks, hoods, gloves, and overboots; at Station 3, the team member cuts the laces off the soldiers' footcovers, removes them,



and places them in a plastic trash bag; and at Station 4, the team member cuts the soldiers' overshirts up the backs and removes them, and then pulls off the soldiers' overtrousers. He places these items, too, in a plastic trash bag.

At Station 5, which is manned by a medical aid man in addition to the team member, the soldiers' uniforms, boots, protective masks, and protective hoods are dusted. If there are no contaminated spots, the soldiers remove their masks and move to Station 6. If there are any contaminated spots, those are first neutralized by the team member. The aid man is

present to take care of any casualties and should have an adequate supply of antidotes to counter the various CW agents the company may have encountered.

Finally, at Station 6, the soldiers are issued fresh ICDE sets and other personal equipment.

A hasty PDS operation of this kind allows a company commander to decrease his unit's MOPP level, to conduct an ICDE exchange, and, therefore, to increase his unit's survivability. The equipment required is not excessive and can be obtained through the supply system. It can be used by any unit and can be adapted

to fit any situation. (A more detailed description of the operation of such a site is available from the Chemical Staff Officer, Headquarters 2d Brigade, 8th Infantry Division, APO New York 09034.)



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The Company XO

CAPTAIN HAROLD E. RAUGH, JR.

In an infantry company, the success or failure of many training and administrative activities can often be traced directly to the only officer in the company who does not wear "green tabs" — the executive officer. Not only is he the second-in-command of the company, he is also its primary logistical and administrative officer. In effect, he is the "staff" for the company commander.

Generally speaking, the executive officer is the senior and the most experienced lieutenant in the company, and as a result of his longevity he usually has a good deal of institutional memory. He is, therefore, able to provide valuable guidance and assistance to both his commander and his platoon leaders.

The executive officer is also in charge of the company's headquar-

ters section, and this usually gives him such additional duties as supply officer, communications officer, weight control officer, unit fund officer, NBC officer, motor officer, and the like. This means that he must be an effective and efficient manager of all of the resources available to the unit, which include time, manpower, supplies, vehicles, and money. In this way he can best help his company commander produce a cohesive, disciplined team of combat-ready infantrymen.

RELY ON NCOs

But he cannot do everything alone. If he is smart, he will often rely on the good judgment, assistance, and experience of the senior noncommissioned officer in the company — the

first sergeant. For example, he should coordinate closely with the first sergeant on all administrative matters so that he does not infringe on or interfere with the first sergeant's duties. One area of interest that both should be concerned with is a vigorous incentive and awards program. Closely supervising and monitoring this program is an excellent way for the executive officer to ensure that all deserving soldiers in the unit are properly rewarded for outstanding duty performances.

The executive officer also needs to work closely with his commander, the platoon leaders, and the training noncommissioned officer on the support that must come from outside sources — the use of training areas, for instance, and ammunition supply, additional transportation support, and meals. Once the company's



requirements for outside support have been determined, he should coordinate them with the responsible parties well ahead of time to see that the support is provided when it is needed.

In a field environment, the executive officer also has many duties and responsibilities. In addition to being a "fighting XO," prepared to lead part or all of the company into battle, he must provide logistical and administrative support for the company, which includes feeding the troops, resupplying ammunition, and supervising the company combat trains. In

short, he should lift these burdens from the company commander's shoulders so that the commander can devote all of his time and energy to commanding his soldiers.

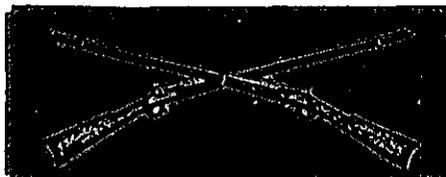
Because of his numerous duties and responsibilities, the company executive officer plays a vital role in accomplishing his commander's mission, which is to mold the unit into a cohesive team of highly-motivated, well-disciplined, well-trained infantrymen, psychologically and physically prepared for combat.

Keeping that mission in mind, the company executive officer should

spare no effort in doing his duty, for his company commander and for all of the soldiers in the unit.



CAPTAIN HAROLD E. RAUGH, JR., recently completed an assignment as S4 of the 1st Battalion, 23d Infantry, in Korea. A 1979 ROTC graduate of the University of Wisconsin, Oshkosh, he formerly served with the Berlin Brigade in Germany. He is now assigned to Fort Ord, California.



A Personal Reflection On Leadership

LIEUTENANT COLONEL HENRY W. GALT



Sooner or later, in associating with Army schools, one is drawn into both formal and informal discussions and analyses of leadership and management. And in a sense, I've seen the A to Z of Army schools after three years at the United States Military Academy and another three at the Army War College.

The degree to which leadership and management are related is a common theme in these discussions and a contentious one. The traditional analysis of this relationship is based upon reading about "the great Captains" and their critical decisions and upon the classics of literature. But today this analysis seems to have been labelled "quaint and useless" and relegated to the dustbin by those who advance a "scientific" approach to leadership and management. Systems analysts and devotees of organizational effectiveness treat with contempt the old soldiers who yearn for something called "good old-fashioned leadership" but who cannot seem to define it.

I think I understand why the new breed is dissatisfied with historical and literary insights into leadership and with the intuitive sense of old soldiers. Its members are trying, through a systematic analysis, to produce something useful that can be transmitted to the next generation of leaders. Their purpose, in other words, is to institutionalize competence.

If this is so and if it can be expressed in such moderate terms, why do I personally resist their efforts? I do so, I think, because I see this as just another step in the dehumanizing trend of the modern era. There seems to be an inclination to view people as production units, as parts of a machine, to be manipulated and arranged to function harmoniously, thus bringing order out of chaos and imposing efficiency on organizations. It seems mechanistic to me, and I don't like it.

I should warn you that I hold some romantic notions about what it means to be a soldier and that I have some strong feelings about *my* Army. These notions and feelings are certainly not universally shared by professional soldiers, but I know there are some others who hold similar views.

Today, we have a plastic Army that is mesmerized by appearance, a white rocks and zero defects philosophy that leads to dishonesty and, inexorably, to false "body counts." We have an assignment system that ensures dilettantism, one that produces generals who are conversant with a multitude of issues but expert in none. We have a centrally managed personnel system that results in selfishness among officers as they pursue a much-criticized but nevertheless ever-present careerism. We are fascinated by the gadgets and the technology that dominate our thinking while we give only lip service to the human dimension of combat. We talk about trust and confidence but have forgotten the meanings of the words.

We have an Army school system that is superficial, a system that discourages thinking complex problems through while emphasizing "point papers" and quick fixes. Both our successes and our failures in war stem

from our reliance upon our rich material resources. We have a military-congressional-industrial complex that often does the wrong things for the wrong reasons. We have a political system that virtually guarantees we will be led by amateurs for the first year or two of each new administration. Despite the "Age of the Manager" we have so many systems and projects with lives of their own that they are no longer subject to control and management. Our officers are so busy "working the problem" that they rarely step back to puzzle out how the parts come together.

The real problem in all this is that we have lost our perspective. We have lost the human dimension. As individual officers, we may not be able to remedy many of the serious defects in the Army, but I believe we can certainly restore the human dimension to the way we lead men.

INFLUENCES

Long before I encountered the gurus of organizational behavior and the vocabulary of modern management, my unscientific personal philosophy of leadership had already been formed by certain powerful influences, the effects of which I'll probably take to my grave. These influences included working class origins, urban life, large family, Catholic school education, love of the humanities, and military experience, not to mention sheer accident, perhaps as important as all the other influences combined.

My study and teaching experiences allowed me to pick and choose *a la carte* from the sciences, social sciences, professional training, and purely trade skills, but when I sat down for a full meal I invariably selected from the humanities to eat my version of the truth. To round out this venture into introspection in a few bold strokes, I have flirted with the romantic and classical points of departure and have found myself vacillating between them — sometimes emphasizing feeling and emotion, sometimes leaning toward intellect and pure reason. As a result of these formative experiences, then, my rather late introduction to such writers as MacGregor, Drucker, Maslow, Skinner, and Herzberg made them less important to me than they seemed to be to many of my military colleagues. (For one thing, my working class origins had made it impossible for me to think of the led as "they.")

Much as I share with my fellow man a craving for understanding of self, society, and influence, I would be dishonest if I failed to express my doubts regarding those who pretend to express universal principles when, in fact, their efforts are merely journeyman solutions to the here and now.

My own philosophy of leadership, therefore, has two essential components and an almost infinite list of corollaries to support them: There are jobs in the Army that need doing and that can provide great satisfaction to a



soldier, even though some require doing ugly tasks; and because of the inevitable mismatches of job and man, as well as the ugly tasks, a leader must show compassion, humor, and honesty in dealing with his men.

Leaders must avoid the temptation to narrow their views to encompass only the tasks and the units for which they are directly responsible. Certainly, immediate tasks and the organization in which a leader finds himself tend to crowd out a more abstract concern for the Army as an institution and for the soldier as an individual. But the concrete problems of today, unfortunately, too often blind leaders to longer term gains for both the institution and the soldier.

For example, frequently in my experience I have seen someone in authority block a soldier from advancement in rank or from more gratifying work by declaring him "mission-essential" when, in fact, it was possible — at only a small sacrifice in efficiency — to make do with another man instead. Worse, although this was normally done in the name of organizational effectiveness, one had to suspect that the desire of the man in charge to look good to his superiors was the true motive behind such a decision. The irony is that often the one unhappy soldier whose desire was thwarted soon multiplied in kind as other soldiers realized that the boss regarded them as no more than spare parts for a machine designed to make him look good. Releasing a soldier so that he might realize his desire does make the boss look good to his other troops — they recognize that he "took a hit" for the sake of that soldier.

Obviously, good judgment must play a role in this:

tearing a unit apart to make a soldier happy is not the solution. Admittedly, to get some long-range good we must get through the short range, day-to-day tasks that most of the Army in the field must face. But the point of this component of my philosophy is simply that leaders should care about their soldiers; soldiers will recognize this concern, will be happier for it, and will perform their duties better and with less supervision. The mere pretense of concern is not enough. The concern must be real.

But the ugly and inescapable tasks of our Army must still be done. Remote areas, an atmosphere of danger, and dull or unpleasant work are all part of the soldier's life, parts that are not to be explained away by a glib tongue or a poster on a unit bulletin board. Some things must simply be endured. But they are best endured by soldiers whose leaders are honest in recognizing the unpleasant conditions and in explaining to soldiers why they must accept those conditions.

SHARING

By sharing dull or dirty tasks with soldiers in a good-humored manner, a leader does not transform those tasks into something pleasant, but his visibility and cheerful support are sometimes all he can give his soldiers. There is no way to pretend that 12-hour shifts in the hold of a ship being unloaded in the tropics, while sweat mixes with leaking cement bags, is fun, but it helps to have the leader present, too, instead of in an air-conditioned trailer somewhere. Understanding and compassion on the part of a leader can at least allow a soldier to realize that some other human being recognizes the boredom and the sense of hopelessness he sometimes feels.

My experience tells me that we would have done better in Vietnam had we emulated the North Vietnamese regimental commander who got wet when his soldiers got wet, was feverish when they were feverish, and was hungry when they were hungry. (The contrast between beating the bush and living at a base camp disturbs combat soldiers, but it characterizes our system, a system filled with anomalies.) A leader's readiness to get the job done while demonstrating true concern for his soldiers may appear to be a bromide, but I have found that the truth often has that appearance.

RELEVANCE

The major management theories developed since World War II have some relevance, and I would not deny that they have caused me to reflect, which is, after all, the intention of their creators. I do not question the allegation that people conditioned to ever-rising expectations, including job satisfaction, cannot be motivated by the means used in an earlier stage of industrialization or by the means used during a great depression. Management *is* increasingly complex;

technology is driving us to unknown terrain; differentiation of tasks at the bottom of the workforce hierarchy is taking place. The old assumptions *don't* work. I absolutely agree with the concept that more and more the boss must realize that he works for the people who work for him. The formulation delights me. But while I find these theories generally useful, I would like to debunk their originality.

ANCIENT EXAMPLES

For example, Tacitus, in *The Germania*, written less than a century after the birth of Christ, described the interrelationship between the leader and the led: "On the field of battle it is a disgrace to a chief to be surpassed in courage by his followers, and to the followers not to equal the courage of their chief. And to leave a battle alive after their chief has fallen means lifelong infamy and shame. To defend and protect him, and to let him get the credit for their own acts of heroism, are the most solemn obligations to their allegiance."

The barbarian tribes the Romans fought had a highly developed sense of management by objective, and at least one Roman noted that for posterity. Barbaric tribesmen knew some time ago what we seem to have learned only recently: a small team cooperating on a project produces a better result, and the team members feel good about themselves. True, we don't know which is the chicken and which the egg, but we do know that there is a connection between job satisfaction and productivity.

Skinner and the behaviorists caused great debate about the way man is motivated, but Alexander Pope, in his *Essay on Man*, written in 1733-34, said something similar: "Two principals in human nature reign:/ Self-love to urge, and reason to restrain..." He went on to say, "Self-love and reason to one end aspire,/ Pain their aversion, pleasure their desire." To me, he captures in the first two lines the essence of Freud's ego, id, and superego, and in the next two lines Skinner's pain-pleasure thesis of human motivation. And I prefer Pope to Skinner as well as to Freud.

MacGregor has an intellectual grandfather in Niccolo Machiavelli. Theory X and Theory Y are interesting, even appealing, and the notions ring true to me. But I prefer Machiavelli's version of the same idea as expressed in *The Prince*, published in 1532: "Every prince must desire to be considered merciful and not cruel... From this arises the question whether it is better to be loved more than feared, or feared more than loved." He concludes that it is best to be both feared and loved, but that "as it is difficult for the two to go together, it is much safer to be feared than loved... for love is held by a chain of obligation which, men being selfish, is broken whenever it serves their purposes; but fear is maintained by a dread of punishment which never fails." Clearly, Machiavelli commends Theory X to the leader, but he equally clearly recognizes alternatives.

The poet E.E. Cummings beat Maslow to the punch in

1925 with this cryptic reference to man's hierarchy of needs: "Humanity i love you because when you're hard up you pawn your intelligence to buy a drink." Going farther back, the Communist promise of peace, bread, and land in 1917, and still farther, Christ's "I am the bread of life" both suggest a clear understanding of what Maslow is talking about — a man's basic needs must be satisfied before he can focus his attention on abstractions.

It is not my intention even to suggest that the gurus of organizational effectiveness have failed to contribute to better management. Most of my peers are keenly aware of their contributions, reflect on their concepts and techniques, and apply them to try to improve the Army. But the question I have posed to myself in this essay is how relevant the gurus are to me. And my answer is: not very. My mentors are to be found elsewhere, in those men who have applied their thinking to the human condition. They dwarf those whose concern reaches only as far as the workplace.

The involvement of a leader with his soldiers is far broader and deeper than that of a factory manager with his workforce. I would prefer to have officers read more deeply in the humanities over the years than to have them take crash courses in fads. When modern management theory goes beyond the manipulation of human beings and suggests that the leaders must love the led, and when civilian managers take pride in sharing danger with their workers, I'll begin to listen to them more carefully. Should Tacitus, Machiavelli, Pope, Lenin, and Christ seem "irrelevant" to modern management gurus, perhaps students of management will benefit from their present examination of Japanese management. I'm prepared to give that examination my attention, but I suspect that their conclusions from this, too, will take me back to the great humanists.

I'm fully aware that I am not in the mainstream in my views and that my comments suggest arrogance. It is reassuring to me, therefore, to tell about an incident that took place about three years ago. I was then teaching a German history course at West Point; late in the course I invited a German Army Attache to speak to my students about the Bundeswehr. I already admired the man, but was surprised and delighted at his response when a cadet asked his opinion of what constituted the best education for a prospective military leader. "The humanities," responded the Attache, "particularly for combat arms officers." Those are my views, too.

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ON BEING A STAFF OFFICER

MAJOR FREDERICK ZILIAN, JR.

It seems that staff officers have never been truly appreciated. In fact, General George S. Patton, Jr., has been credited with (or blamed for) describing staff officers as “unresponsive, cool, calm, and as damnably composed as a concrete post . . . without charm or the friendly germ,” but “happily, they never reproduce and all of them finally go to hell.”

But quite ironically, Patton could not have been the great commander that he was without competent, dedicated staff officers supporting him. A commander in today's Army, given the scope and sophistication of his responsibilities, absolutely must have solid staff officers to act as his eyes, ears, and voice.

Although there are some principles and techniques that can help a staff officer do a good job, ultimately, his success depends on his ability to work with people. And this is not something that can be defined by precise rules. In fact, being a good staff officer is essentially an art, the techniques of which must be studied and practiced.

The following advice is offered — out of experience — to those of you who are about to become staff officers of an infantry battalion or who may become battalion staff officers some time in the future. It should serve, at least, to guide your thinking as you prepare to tackle such an assignment.

First, as a staff officer, your job is to make things happen for your commander — you are an extension of him, because he obviously cannot be everywhere all of the time. Once you understand what your commander wants or, in his absence, what you sense that he would want, you must be bold and imaginative enough to see that what he wants done gets done.

A beginner at staff work sometimes sees the preparation of a piece of paper — an operations order, a letter of instruction, or a short memorandum — as an end in itself. But such a piece of paper is only a means to an end. Action is the real end — moving troops to and from a training area, conducting a withdrawal under pressure,

executing a change of command ceremony, or conducting a dining-in. Paperwork only carries instructions. (It has been said that leadership is 5 percent issuing instructions and 95 percent seeing that they are carried out.)

Unless the action is something you can do yourself, you will have to supervise others in doing it, others who may misinterpret, ignore, or, because of the press of other demands, simply forget about those beautiful pieces of paper you have prepared. This means that to accomplish the action you must, by your own energy and intervention at key points and places, ensure that people understand what is required and take the proper action. Flow charts and fancy briefings supplement but do not replace individual energy and attention.

Keeping track of all the pieces of paper and all the actions they are supposed to trigger is no simple task. It requires, first, the efficient use of time. For a staff officer especially, there are always more things to do than time in which to do them.

Some time during the day — logically at the beginning or the end — you should make a list of the things you must do. Next, you should identify the most important items on the list and make these the A's. Then you should label the next most important group the B's, and, finally, make those of lesser importance the C's.

What criteria should be used to determine the "hot" from the "not-so-hot"? If your commander or a general officer has directed that something be done — no matter how insignificant it may look — that's an A. If your executive officer (XO) has given you a requirement, if a subordinate commander has requested something, or if something left unattended may cause embarrassment to your unit, you probably should designate it an A, too. Do your best to act on these A's and respond within 24 hours, sooner if possible.

Certain routine actions from higher headquarters, such as reviewing a TOE that may never take effect, are B's, not A's. They must be done, of course, but not with the same energy or attention as other more urgent actions.

You should quickly and readily delegate these B actions to your subordinates, and you should freely request extensions of the suspense dates on them.

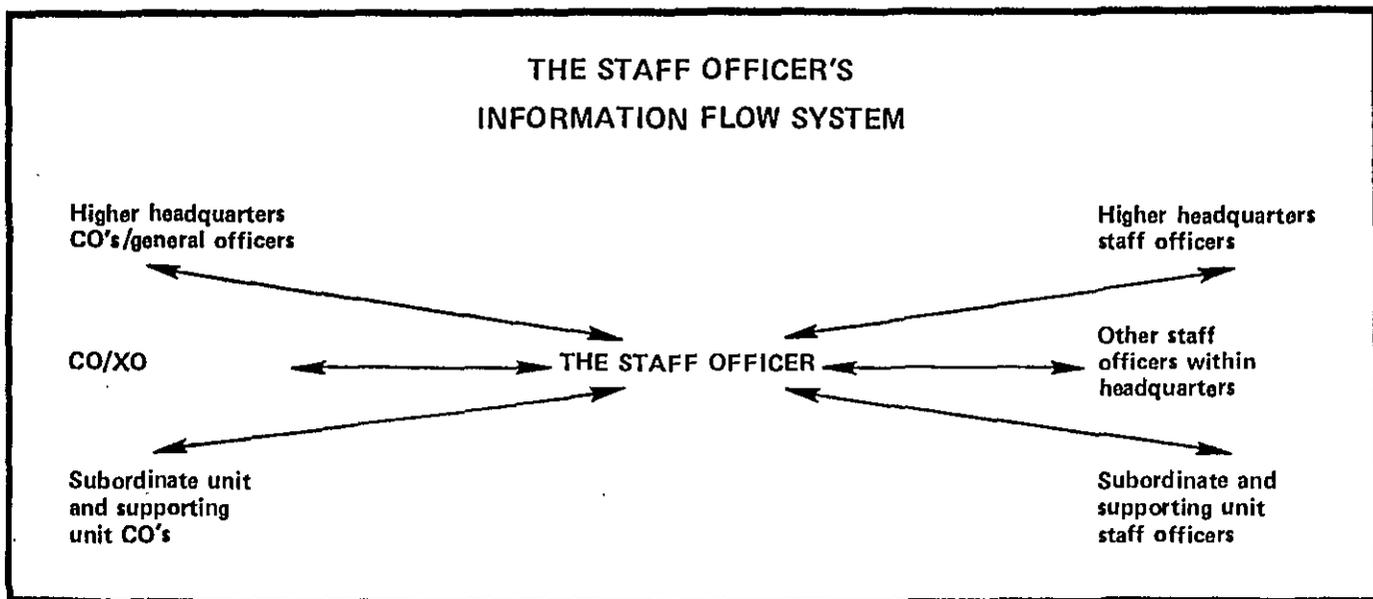
EASIER

You may be tempted to do the C's first, because generally they are easier and may not require any political maneuvering — such as confronting someone from higher, lower, or adjacent headquarters whose objectives conflict with yours. It's certainly easier to draft a letter of appreciation or to lay on some ranges than to resolve a question over which unit gets the single slot this month for the Primary Leadership Course.

But don't let the routine stuff slow you down. Leave the C's for last. Concentrate instead on the A's, and lean into them with all you have. Try not to call it quits each day until all the A's are taken care of or until you have done all you feel you can and someone else must do something before you can act further. If you do this, you will feel better, sleep better, and probably have a good answer for your commander when he asks you about a particular action the next day.

Whether you are dealing with A's, B's, or C's, though, the efficient flow of information to everyone involved is an important part of your job. Collectively, the staffs of a line unit make up this flow system (as shown on the accompanying diagram.) For the system to work smoothly, everyone must get the proper information to the proper people at the proper time. Failure to do this causes such problems as shortages, missed meetings, and crash suspenses.

When a piece of information comes in, you should quickly determine who needs to know it. More important, you should ask yourself whether your commander needs to know it. And if so, when? Always remember that good news does not get any better with age, while bad news may get worse.



If the information you get needs further refinement at your headquarters, refine it and get it out again. This is especially important if it is being passed to a subordinate headquarters; you should give that headquarters as much time as you can to work on the problem. Remember, too, the units that are supporting you: they can provide that support only if they are kept informed.

Be wary of the inclination, especially when you are new, to put an unfamiliar action back into your "in" box until tomorrow. Before you put it off, call higher headquarters, ask your XO, or check with your own people about it to make sure it is not an A matter.

An important part of this information flow is listening, and a good staff officer must excel at it. This does not mean simply hearing — you must actively consider what you hear and identify its implications for you and your unit.

To whom do you listen? Obviously, to your commander and XO. That's easy. What takes energy, discipline, and dedication is listening to others as well. For instance, if you hear that your boss's boss would like to see something happen, or if he has shown concern about something, your antenna should pick that up. If your commander does not come to you about it, raise the question with him and state any ideas you may have about it. Then get his guidance and take action.

Listen to the subordinate commanders, too. What are



their concerns and needs? How can you help them? If these commanders are not quite sure themselves what they want, you should help them clarify it.

In addition to these commanders, listen to your counterpart staff officers at higher and lower headquarters. What is on their minds? What is coming up soon? Ideally, by asking such questions, you can identify problems and work them out before they explode in your commander's face.

Finally, listen to your fellow staff officers. What are they doing that you need to know about? Conversely, what are you working on that is relevant to them?

Being an active, energetic, and disciplined listener helps you, and, therefore, your commander, stay on top

of things — instead of having them stay on top of you — and it allows you to maintain good working relationships with subordinate units and higher headquarters.

While you are fighting on a day-to-day basis to accomplish those A matters, you must also take the time to look to the future. Force yourself to look at next week's SQT testing, at next month's Division Sports Day, and at the mortar platoon's out-of-area training four months from now. Are there any last-minute equipment problems with the SQT testing? Has the inclement weather plan been coordinated for it? Do all the subordinate units understand their responsibilities for Division Sports Day? Are there any problems with their upcoming in-process-review briefing for the commander? Has the air transportation been laid on for the mortar platoon's out-of-area training? Who will provide the ammunition — your unit or the unit hosting the platoon?

Usually, only fairly easy actions can be accomplished in one day. An action of any significance may require care and nursing over an extended period of time. Be sure to give each action the appropriate care at the appropriate time, checking and double-checking to see that the word is out and there are no misunderstandings.

Never, if there is any time at all, rely solely on oral communications and taskings. Always follow these up with a piece of paper repeating what is required or what has been said. This helps eliminate misinterpretations. Then continue to double-check either personally or through the members of your staff section on how the sub-tasks necessary for the entire action are being accomplished.

Closely related to this follow-up is the requirement for completed staff work. You must make every effort to submit to your commander a completed package on an action. If the final action will require him to make a decision, present him with all the information that is relevant to that decision. Ask yourself what questions your commander is likely to ask about the issue. If you do not have the answers to those questions, you are not ready to brief him or to submit the decision package to him.

You may be tempted, especially at first, to take problems instead of solutions to your commander. But you must resist that temptation. You should give him at least one solution to any problem; better still, you should offer him a range of alternatives.

Another part of completed staff work involves the less important, less glorious dimensions of an action — all those C's on your priority list. When a training exercise is over, for example, and the strokes and slaps have been handed out, the after-action reports and letters of appreciation still have to be written. Get those done as quickly and as professionally as possible, and move on to the next challenge.

THE BIG PROJECT

When faced with a big project — such as administering an ARTEP to a subordinate unit, conducting a major

COMMON MILESTONES FOR BIG PROJECTS

Prepare the concept.
Brief the commander on concept; receive his guidance.
Conduct coordination meetings throughout the planning stage.
Prepare the final concept and brief the commander on it.
Conduct the action.
Conduct an after-action review.
Prepare the after-action report and letters.

field training exercise, or conducting a change of command ceremony — there are some principles that can help you complete the project systematically and professionally.

For such a project, it is absolutely essential that you draw up a list of milestones, things to be accomplished by a certain date. And once these milestones have been approved, you should do your best to complete each action on time. There are a number of milestones that commonly go into a "big project," such as those on the accompanying list, but you have to decide what is appropriate for each project.

First, draw up a concept using your own experience and imagination, the ideas of your staff, any information available in the files, and any guidance your commander may already have given you. Then brief the commander and the XO on your concept and receive their guidance.

During the planning process, in addition to coordinating continually with all concerned, you will probably want to have at least an initial and a final coordination meeting with everyone connected with the project. Keep your commander (and your fellow staff officers) informed on your progress and on any problems that require his personal intervention.

Brief your commander on the final plan and bring up and resolve any outstanding issues. (You may want to invite all the commanders involved to this briefing, too.) See that your graphic aids are straight, and consult your commander concerning a subsequent briefing for his boss, if necessary. Then put it all on paper in the form of an operations order, a letter of instruction, or whatever is appropriate, and distribute it.

STAFF MEETINGS

Staff meetings are an important part of the continuing coordination process, provided they are used properly. One rule you should observe is never to use a staff meeting either to conduct business with a single fellow staff officer or to confront another staff member on a point of disagreement. Trying to do these things during a meeting not only wastes the time of the other staff members, it also unnecessarily airs dirty laundry before the entire staff, and this can eventually lead to a

deterioration in staff cohesion. If you have a problem with another staff member, it is better to hash it out privately.

It is imperative, in fact, that you strive to maintain good relationships at all levels. You must especially establish and maintain a good relationship with your commander and your XO. If you cannot, someone — guess who? — will probably have to leave.

You need to pay attention, especially, to your relationship with the headquarters company commander, recognizing that there is an inherent conflict between your job and his. You must, therefore, make all efforts to nurture a spirit of mutual support and respect. He needs the troops to accomplish his requirements — range firing, winter driver training, and physical training — and you need them if your staff section is to function properly. But through communication and accommodation the two of you can manage these conflicting demands effectively.

All of the ideas and advice included here so far are on the practical level. But being a battalion staff officer also involves a higher philosophical level. Like a mother's, a good staff officer's work is never done. And often you may feel that that long, hard work is not justly recognized either. How do you cope with that?

You take a deep breath and try to remember what really counts. Professionally speaking, this must be the soldier down at the lowest level of the unit. So, at the end of a day when nothing seemed to go right, when your priorities were all mixed up, try to remember the good you did, or tried to do, for the individual soldier. If you feel you did not succeed today, well — you did your best. And besides, you did succeed yesterday and will succeed again tomorrow.

Don't listen to the voices of fear or intimidation. Listen only to the voices of success and the winning spirit. You, your unit, and your family will suffer if you do otherwise. Our country asks us to do our very best, but it is pointless to worry over whether that is good enough.

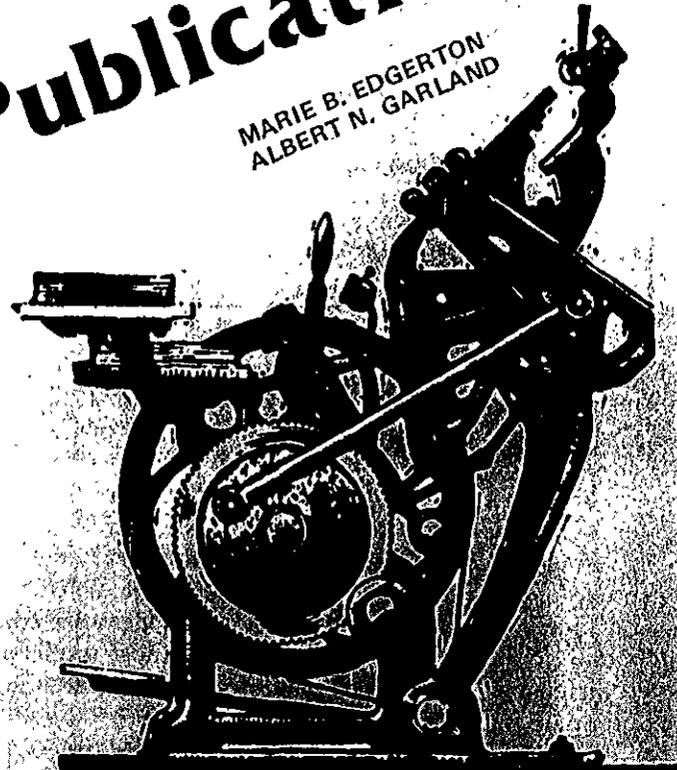
Finally, expending too much physical and mental energy on the job may actually decrease your overall effectiveness. So, if you work hard, you should also play hard. As in almost anything else, balance is the key.

If you learn all these lessons and apply them well, you should be able to keep all your A projects on schedule and clean up the B's and the C's at the same time. Once you and the rest of the staff have had a few successes at completing the commander's projects, the winning spirit should take over. Then the pride and efficiency that usually result from good staff relationships will make your work much more pleasurable and rewarding.

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Writing For Publication

MARIE B. EDGERTON
ALBERT N. GARLAND



Writing is certainly not at the top of the list of things Infantrymen like to do — especially writing articles for the Army's professional military journals, including **INFANTRY**.

And that's too bad, because the purpose of any professional journal is to transmit what one person in a given field knows to others like him who might need that information — to share ideas, stimulate thinking, and establish a mutually beneficial dialogue. And most Infantrymen — both commissioned and noncommissioned officers — by the time they've been in the Army for a while, have gained quite a bit of knowledge and experience that can be valuable to the Infantrymen who will come after them.

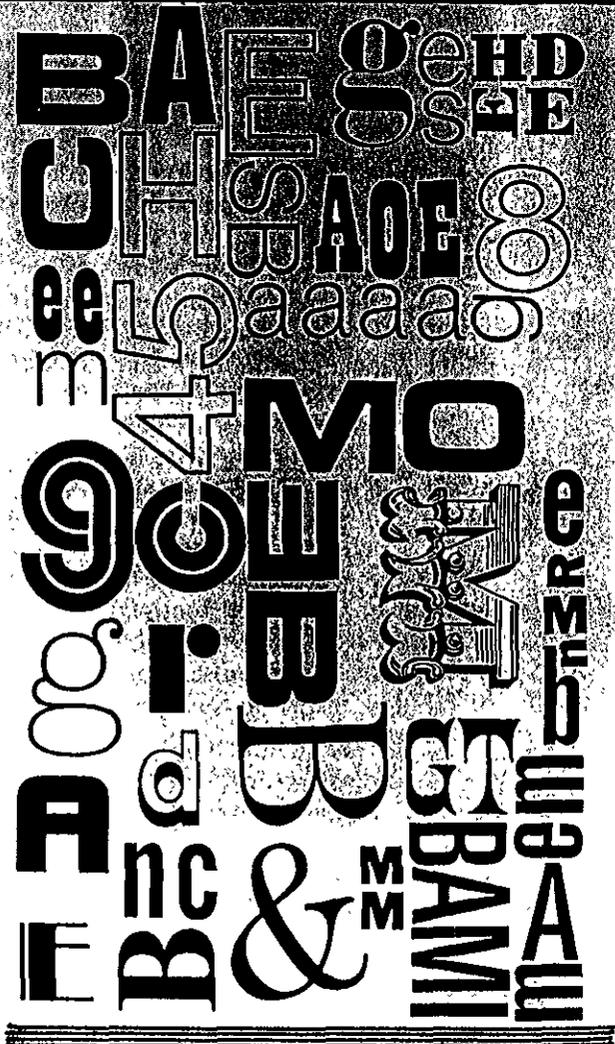
But it's hard to convince them that they should share that knowledge and experience in writing. There are any number of reasons for this reluctance, but during the years that we've worked together on this magazine's staff, we have concluded that most of them can be placed in four general categories.

First, some Infantrymen seem to think that writing, in any form, is an intellectual pursuit and they want no part of it. They didn't join the Army to write, they tell us, but to fight — or to train others to fight. Besides, they don't have time; they're too busy taking care of the details of everyday Army life. And they certainly have better things to do in the evenings and on weekends.

Other officers and NCOs don't care one way or the other. Writing doesn't particularly interest them. If they pass on their experience at all, it has to be to the soldiers nearest them. They're not really concerned with anyone else in the Army — at least not concerned enough to sit down and try to share their ideas in writing.

Then there are some who especially admire their own writing and refuse to submit articles to any magazine because they don't want their manuscripts edited. They have a hard time believing that an editor's only aim is to make their writing clearer to his magazine's audience.

And there is a fourth category of Infantrymen — those who would like to write for publication but who do not have any of the confidence of this former group. They worry about their ability to write and fear that their el-



forts will be ridiculed by some editor sitting in final judgement in a book-lined office someplace. So rather than face such ridicule and possible rejection, they do nothing about those articles that they have been thinking about.

So far, we haven't been able to do much with the people in the first three groups, though we've tried. As a result, we have directed most of our efforts toward the members of the fourth group — the officers and NCOs who want to write but don't think they can do an acceptable job of it. We have helped any number of first-time writers such as these get their articles ready for publication — either in *INFANTRY* or in another magazine — and nothing pleases us more.

We certainly intend to go on encouraging *all* Infantrymen to write for publication. That's part of our job, a big part. And for an officer or an NCO who wants to write but isn't quite sure how to go about it, we offer the following suggestions.

First, a prospective author should be aware that in a professional journal of any kind the most important consideration is the subject matter of an article. This is especially true of military publications. Each usually has its own particular reason for existing, a stated mission to accomplish through its pages — a specific category of material to cover and a specific group of readers to reach.

INFANTRY's mission, for example, is to publish material on Infantry organizations, weapons, equipment, tactics and techniques, and to provide a forum for the exchange of professional ideas. We also use some relevant historical articles, especially those with lessons learned that are still valid. Our primary audience is the company grade officer and the senior noncommissioned officer. If an article is submitted to us that does not somehow fit that mission or that audience, then we will probably either reject it outright or suggest another publication we think might be interested in it.

A prospective writer, therefore, should study the publication he wants to write for to see what kind of material it normally uses, and then he should write with that publication in mind. Or if he already has an idea for an article on a certain subject, he should look for just the right publication to submit the article to. (*In no case should he send it to more than one at a time. And he should always send an original manuscript, not a copy.*) But how can he find out what kind of material each wants?

He can go to the library, for one thing, and look at various magazines to get a feel for what they normally use. If he doesn't find the magazines there, he can at least get their addresses and write or call the ones he is considering. Most magazines offer sample copies to anyone who is interested, and most also have writers guides to send along. Most editors are also happy to discuss article ideas by telephone or by mail and to advise a writer on the best approach to use.

While a prospective writer is looking at various magazines to see what subject matter each covers, he should also look at the style of writing in each. Style may not be

easy for a new writer to detect, but he can usually tell, for example, whether the writing is formal or informal, serious or light, and whether the magazine uses scenarios, dialogue, or humor, for example.

Once he has done all this, an author must do his homework too. He must become well versed in his subject matter, using the nearest library facilities to fill in any gaps in his own knowledge. And he should not select a subject that is too broad. It is a rare person who can write an article without some preparation; and there is no one who can solve all the world's problems, or even all of one Infantryman's problems, in 2,000 words.

A military writer should be aware, too, that writing for a military publication is not the same as "military writing." The two are quite different, in fact, although we're not sure why that should be. Military writing, unfortunately, is stereotyped and usually follows certain prescribed steps with little deviation permitted. Much of it is filled with meaningless clichés and bureaucratic jargon that together make it essentially unintelligible except to insiders, and often even they find it difficult.

Writing for publication in a military journal, and especially in a civilian magazine, is another matter entirely. The author of a magazine article cannot force another person to read his material as the author of a "military paper" can. He must first attract that person's attention and then work hard to keep it. And he does this by making his writing tight, concise, and interesting — by coming through as a person expressing a human situation, a bit of reality with which a reader can associate himself as a person.

WARNINGS

Before he begins to write, there are a few more things a writer should know:

- Writing is not easy for most people. A writer's goal should be to make the *reading* easy; as a famous editor once put it, "Easy writing makes damn hard reading."

- Writing cannot be hurried. It must flow naturally in its own time. And it must follow the author's thoughts in a logical and progressive way.

- Writing is a lonely job. An author cannot share the experience until he has completed at least one draft of his article. No one else can help him write; it is a task that he must do alone.

- Writing requires patience. It requires the ability to sit at a desk or the dining table, or on the floor, to compose draft after draft. A writer should not expect to produce a finished product on the first try. He has to be ready to rework it again and again. If he does not, he can be sure that an editor somewhere will do it for him — assuming, of course, that the editor sees something valuable enough in the manuscript to bother doing it.

Even then, after all this work, his article may be rejected. Sometimes it will be a good article but at the wrong time or the wrong place. The article may be on a



subject that does not appeal to the editor who reads it at that particular time, or the editor may already have accepted a similar article. Rejection is a fact of life in the writing business. But it should not discourage a writer from trying again.

TECHNIQUES

Certain techniques are involved in good writing. The following are only a few of those we have found to be particularly useful.

First, an article should be complete. It should answer all the questions it raises — all the questions a reader might ask in connection with the specific topic. The writer accomplishes this chiefly by narrowing his topic down to something he can deal with satisfactorily in a magazine article.

The article should be coherent, meaning it should all “stick together.” In other words, it should have a definite point to make, and everything in it should lead to or support that point. And along the way, the author should say what he has to say simply, clearly, and directly. He should not wander; if he does, his reader will also wander, never to return.

The length of an article is a matter of personal choice, although magazines do usually have limits, both upper

and lower, on the length they will consider. Conciseness requires planning, but if a writer makes a reasonable effort to outline his ideas before he starts to write, he should be able to stay within the desired limits. One rule of thumb we use when talking with prospective authors is, “Say what you have to say and then stop. Don’t say it over and over again.”

A writer should not attempt dialogue unless he has had a great deal of experience with it. Good, realistic dialogue is difficult to write, even for the most experienced writer, and amateurish dialogue will turn an editor off quickly. (For us, the best turn-off is an opening scenario. In most cases, it only indicates that the writer did not know how to begin and used a scenario as a crutch.)

Footnotes are useful for certain types of articles. Separate bibliographies are also necessary if an article is based on historical research or on the findings of a board. But no manuscript should be cluttered with long quotations that only restate what the author is trying to prove. An author should be able to make his own case strongly enough with a minimum of outside help from authorities. Only especially astute or well-stated comments should be quoted directly, and the source of these should be given in the text.

An author should be as objective as possible about his subject. He should be careful not to base an article on assumptions that may not hold up. If everything he writes is dependent upon a neatly phrased premise that he states in the beginning, then he must first establish that premise as a fact.

He should be careful, too, about using superlatives, comparatives, and absolutes. Something he labels *the best*, for example, may be the best in his opinion only. And few things in the world are so absolute that an author can safely say that something is *always* this way or *never* that way. If he does, he must be prepared to support his contention.

In regard to “forum” articles — in which an author expresses his opinion on an issue — we recommend that a writer avoid criticizing the way something is done unless he has a good substitute solution to offer. Too many writers appear to have a personal axe to grind without really helping solve the problem. But that is not to say that every article must hew to the “party line,” the established doctrine. Most magazines welcome controversial articles, because such articles stimulate a healthy dialogue, not to mention a healthy interest in the magazines themselves.

Finally, any would-be author should be his own copy editor. Although editors expect to have some work to do in preparing an article for publication, an author will stand a better chance of having his article accepted if he will look at it as an editor might. Besides, by doing this, he can often make his thoughts clearer and thus avoid the possibility that the editor may unintentionally change his meaning in the process of doing the editing for him.

Over the years, we have read thousands of manuscripts, ranging from the very good to the very bad. As a

result, we have developed a number of writing tips that we think will benefit any military writer — if he uses them properly.

The tips that we have chosen to use here are especially intended to help a prospective author write simply, clearly, and concisely, because too much Army writing is the direct opposite of simple, clear, and concise. The examples used to illustrate these tips have been collected over the years from military writing found in various documents and publications.

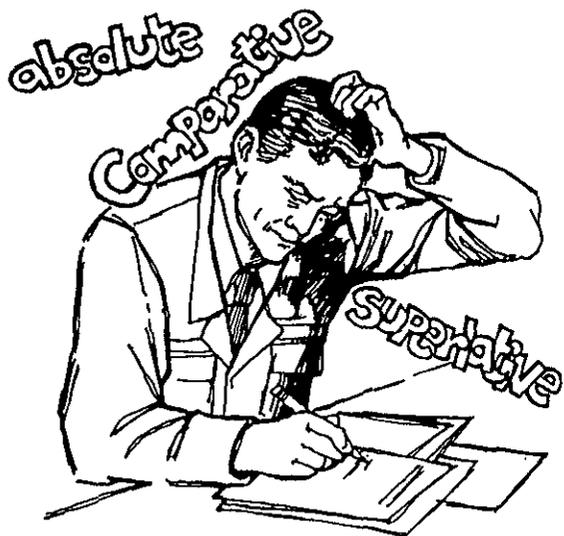
WRITING TIPS

Use the active voice. Although there are times when the passive voice is best — when, for example, the action itself is more important than who does it — the active voice is generally clearer and more concise. “It was ordered that . . .,” without saying by whom, may look like a dodge to avoid saying who ordered it. In any case, it certainly does not tell the reader who did it, and getting a real live person into a sentence almost always makes it more interesting and easier to read.

As another example, “The equipment was repaired by the soldiers,” does tell who, but “The soldiers repaired the equipment” is shorter and more straightforward. Writers should especially avoid the impersonal, stilted, and typically Army “It is regretted that,” saying instead simply “We regret,” or “The Army regrets. . .”

The use of the passive voice often leads to monstrous constructions such as this: “The mobilization of all available resources will be made.” Although it is somewhat better to say “All available resources will be mobilized,” this is still in the passive voice. Much better is the active, “We (or somebody) will mobilize all resources.”

Once a writer consciously decides to use the passive voice in a sentence, however, he must be consistent.



Switching from the passive to the active in mid-sentence leads to confusion, as this example illustrates: “The senior enemy air defense controller was taken out of the picture by cutting his communication cables.” The word “cutting” clearly requires someone to do the cutting, and the enemy air defense controller probably did not cut his own cables to take himself out of the picture.

There are two solutions to this problem: In the passive voice, “The . . . controller was taken out of the picture when his communication cables were cut.” Or, in the active voice, “(Someone) took the air defense controller out of the picture by cutting his communication cables.”

As this example also illustrates, it is sometimes impossible for an editor to convert a sentence to active voice, because he may not be able to figure out who the *doer* is supposed to be. Only the author can provide that information.

Make modifiers clear. A word or phrase that is used to modify another word or phrase must be placed so that the relationship between them is clear. This example from a post daily bulletin will illustrate: “Warning: Any toy chest used for storing toys with a hinged lid is a strangulation hazard to a small child.” The phrase “with a hinged lid” should go after the word “chest,” since the warning is about *chests* with hinged lids, not about *toys* with hinged lids. (Besides, the phrase “used for storing toys” is unnecessary; that is what a toy chest is for. In this case, then, taking out the intruding phrase solves the problem.)

The dangling participle, which has plagued English students throughout their school years, also falls into this category of misplaced or unclear modifiers. For example, “Walking by the motor pool, the truck hit the fence,” taken literally, means that the truck was walking by the motor pool. But a more likely meaning is, “As I was walking by the motor pool, I saw the truck hit the fence.”

Use parallel construction. Parallel construction means putting like elements in a sentence in the same grammatical form. In “preparing, coordination, and evaluation,” the word “preparing” does not agree with the others. All should have “tion” endings, or all should have “ing” endings. (The “ing” endings are best, incidentally, because verb forms are generally better to use than nouns.)

In a description of the U.S. flag, “red, white, and blue” are parallel — all adjectives — but “red, white, blue, and made of nylon” are not. The last item in the series is a phrase, not an adjective; therefore, it is not a true series.

This “false series” is the single most common error of parallelism. If three or four items are involved, many writers tend to treat them as a series without analyzing them for logic.

As another example, “He gave them orders, maps, aerial photographs and showed them a sand table of the command post.” An “and” before “aerial photographs” to complete that series, “orders, maps, and aerial photographs,” would help. (Despite popular belief, there is nothing wrong with using two *ands* that

close together in a sentence as long as it is not hard to read.) Another example, "The new M1 tank runs smoother, faster, and responds easier," is not as easy to solve. It might be better to say, "The new M1 tank runs smoother (more smoothly?), travels faster, and responds easier." But better still, "The new M1 tank is smooth-running, fast, and responsive."

Faulty parallelism is fairly easy to detect if a writer carefully reads what he has written and applies some logic to it. For example: "His job is developing training, doctrine, materials, and training the officers" presumably means "His job is to develop training doctrine and materials and to train the officers."

Use correct idioms. An idiom is an individual peculiarity of language — a construction that is generally accepted and widely understood but without any real grammatical basis. For example, we say "instead of going" but "rather than go," and even linguists cannot explain why.

Many idiomatically strange constructions have crept into Army writing recently: "Officers are charged to satisfy" and "are responsible to satisfy" appear with some regularity. But the normal idioms are "charged with satisfying" and "responsible for satisfying," and it seems strange to most readers to see them otherwise.

As another example, "to assist the boss to prevent" should be either "to assist the boss in preventing" or, better, "to help him prevent." We normally say, not "acquaint to" but "acquaint with," not "curiosity of" but

"curiosity about," not "permeated with" but "permeated by." (Such lists are available in many grammar books and style guides.)

Use transition devices. Transitions are words or phrases that let the reader know what direction the author is taking next. The most common of these are *and*, *but*, and *for*, but there are many others: *Consequently*, *therefore*, *however*, *nevertheless*, *subsequently*, *on the other hand*, *earlier*, *later*, *previously*, and so on. Often entire sentences must be used to provide transition. All of these devices help the reader keep track of what the author is saying without having to reread a passage several times. Such devices should be used in sentences, between sentences, between paragraphs, or between major sections of a piece of writing — anywhere there is a shift in the subject.

Be concise. *Concise* does not mean necessarily brief; it means saying everything that needs to be said to make a point clear but without any unnecessary words or phrases. The following examples include redundancies (using two or more words that mean the same thing) and general wordiness (using more words than necessary):

Instead of:	Try:
seems apparent	appears
new innovations	innovations (they <i>are</i> new)
many and numerous	many
final and ultimate	final (or) the last
around the perimeter	around (the line that goes around something <i>is</i> its perimeter)
skirt around	skirt (or) go around
important essentials	essentials (important by definition)
serious crisis	crisis (serious by definition)
at this point in time	now
until such time as	until
in the near future	soon
a sufficient amount of	enough
in a timely manner	on time
causal factors	causes
make provision for	provide for
is indicative of	indicates
be cognizant of	know
have the (cap) ability	be able
be in agreement	agree
give authorization	authorize
be in possession of	possess
give encouragement	encourage
serve the function of	
being	be



These are only a few of the many examples of redundancy and wordiness. To change the habit of writing this way, a writer first has to become aware of the problem; then he has to go back over what he has written to see whether he has used any words that need to be cut.

Use short, familiar words. Part of a writer's task is to choose the right word. And sometimes the longer words, such as those listed on the left below, are best, especially

in formal writing. But generally, the shorter, more familiar versions are just as good, and they are more concise. (In informal writing, the longer ones sometimes sound pretentious and stuffy.)

Instead of:	Try:
numerous	many
facilitate	ease
the remainder	the rest
individual	man, woman, soldier
sufficient	enough
provide	give
attempt	try
obtain	get
possess	have
desire	want
prior to	before
subsequent to	after
utilize	use
endeavor	try
myriad	many

(On this last item, *myriad* means many; therefore, *a myriad of*, which is used so much, makes no sense whatever.)

Above all, a writer should never use a word unless he is sure he knows the meaning of it. (If he really thinks about it, he usually does know; misuse comes more from carelessness than from ignorance.)

It is not uncommon, for example, to see *agenda* confused with *itinerary*, *defuse* with *diffuse*, *gleam* with *gleam*, *hone* with *home* (one *hones* skills, *homes* in on a target), *breach* with *bridge* (especially in *breaching the gap*, which, of course, is already breached), and *wreckless* with *reckless* (direct opposites, in fact, when talking about driving.) A pet peeve of ours is the word *enhance*, which seems to be a favorite these days. *Enhance* means to increase or augment, but normally it is applied to something that is already good, such as value or beauty. To speak of enhancing lethality (a questionable word in itself) is ludicrous. What's wrong with using *increase*? Or *improve*?

Avoid jargon. Many people in the Army (and in other specialty fields as well) become so accustomed to seeing jargon, which is a specialized use of language, that they adopt it for all their writing. But the only time jargon of any kind is acceptable in writing is when the writer knows

that all his readers will understand it. When a magazine goes to all kinds of people all over the world, he can be sure that many of them will *not* understand it. Any writer must therefore make a conscious effort to see that the words and phrases he uses are not only clear and concise but free of specialized uses of words that some will not understand.

Read and practice. Finally, anyone who seriously wants to write for publication should make it a habit to read everything he can. He will not only be stimulated by the ideas of others, he will also be exposed to the way those ideas are put together in writing. This, in turn, should make his own writing come easier.

He might even consider reading some of the many books on writing that are so popular now. One that has always been popular, and one that any writer would recommend, is *The Elements of Style*, by William Strunk, Jr., and E.B. White. It is concise and easy to read (its authors practice what they preach).

In addition to reading, a prospective writer should practice writing every chance he gets. Only through practice can he sharpen his skills. And in spite of all the advice in this article and all the implied criticism of the way so many people write, we do not object to having writers practice on us. Our purpose here is to encourage writers, not to discourage them.

The most important thing about an article is its contents — the message that it has for a magazine's readers. If we see something good enough in a manuscript that is submitted to us, no matter how much help the writing may need, we will help the author get it published, either by giving him specific instructions for rewriting it or by editing it for him.

These tips are designed to help the writer make that "something good" in a manuscript clearer and easier to get at so that we, or another editor somewhere, will want to publish it.

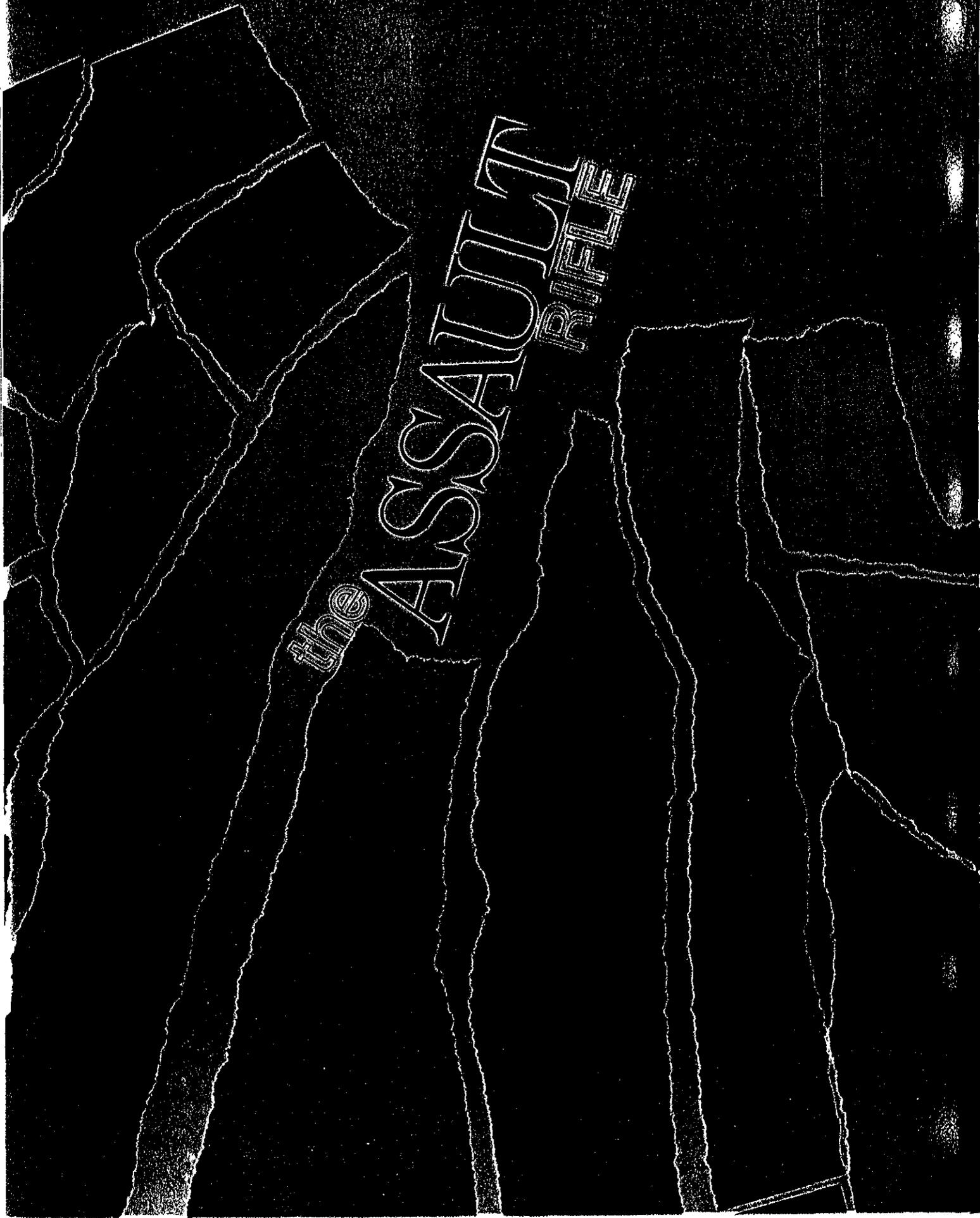
There is nothing more satisfying for a writer than to see his work in print. Even a much-published author feels much the same each time. And aside from this personal satisfaction, an Infantry officer or NCO who publishes an article can take pride in the fact that he has been able to contribute something to his profession and to his fellow professionals.

There is no better time to start than now. And we are here to help in any way we can. All it takes is a call or a letter.



CAPTAIN NOYES B. LIVINGSTON III

the ASSAULT
RIFLE



The United States Army considers the M16 one of the best assault rifles available today. While it is admittedly a good weapon that has hidden its origin and age well, it has not always been so popular. The fact that it is in service at all is simply an example of the urgency, the vagaries, and the compromises that have influenced many rifle and ammunition selections in the past.

The M16's story, like that of other assault rifles, starts with the beginning of modern warfare. Until the introduction of the rifled musket during the American Civil War, the infantry shared the battlefield with the cavalry and the artillery in a truly combined arms effort. Combat was usually close, brief, and violent for all three, and the final issue was often decided by personal contact with the enemy.

The rifled musket should have changed things quickly; an infantry unit could now deliver sustained point fire out to 500 meters and still remain behind cover. But until late in the war few commanders realized the difference, and their tactics remained the same. Eventually, though, as the shock of their infantry assaults were beaten off by defensive firepower, their losses became so great that their infantry had to back off and the cavalry and artillery turned to playing supporting roles.

The repeating rifles that came into use following that war did not do much to change the situation, although they improved the infantry's advantage by allowing rapid fire from the prone position. But the development of the smokeless bolt action rifle at the end of the 19th century did make the cavalry an anachronism and forced the artillery to catch up technologically.

At the beginning of World War I, armies still ran on the legs of their men and animals once they got off a train. But because weapons had improved faster than transportation, communications, and tactics, an attacking force could be immobilized at long range with rifle fire and broken up by light direct artillery fire. In the event the attackers managed to pass through those curtains of fire, they could be destroyed by the defender's machineguns, which were used in ever-increasing numbers.

Mobile heavy artillery and automatic weapons eventually doomed the rifleman during the Great War. Incapable of either operational or tactical movement, he dug into the earth to escape the inferno on its surface, and his rifle literally became a last ditch survival weapon. The infantryman was eventually saved only by the appearance of the tank and reliable motor vehicles; they gave him the protection and mobility he needed either to close with his enemy or to avoid him entirely.

The start of World War II found the combat arms and their weapons and tactics working in harmony, at least for the victors during the first battles. The rest had to learn fast. In the grand scheme of victorious combat the artillery disrupted the enemy, the armor broke through his positions to cause as much damage and confusion as possible, and the infantry safeguarded the breakthroughs. The mobility and cooperation of all three made it easier to destroy the enemy's capabilities instead of the

enemy himself. The offense was once again the key to winning.

The infantry was assigned the roles of protecting the other arms, of consolidating and defending the battle area, and when all else failed, of finishing up the dirty work. Infantrymen supported their squad and platoon automatic weapon crews with deliberate, well-aimed rifle fire and used those same weapons to provide covering fire for their own movement. Whether these infantrymen succeeded or failed as a unit, each man's rifle was still his personal weapon. It was heavy, durable, and accurate. If he was lucky, it was also semiautomatic.

As the war dragged on, strategies of annihilation ground down into battles of attrition. The elegance of the blitzkrieg gave way to the complexity of combined arms warfare. To keep from losing the firepower race, armies using bolt action rifles began to reassess their infantry weapons and tactics because their factories and trucks were delivering ammunition faster than the infantry could use it.

The Germans were the first to begin their reassessment. They came to believe that with a lighter, selective-fire assault weapon that fired a reduced power cartridge at a shorter effective range, their riflemen, because of its lessened recoil, could deliver more fire in less time at normal combat ranges. The machinegun would then complement the squad rather than being its main reason for existing. This reassessment became a reality when the StG44 family of assault rifles with its 7.92x33mm Kurz ammunition joined the fighting in 1942.

The Soviet Union, as a result of its experiences against the German StG44, adopted a 7.62x39mm intermediate cartridge in 1943 for its SKS semiautomatic carbine. This versatile round, frequently referred to as 7.62 Soviet or Pact, is in use today throughout the world in the AK, AKM, and RPK series of assault rifles and light machineguns, as well as in similar weapons used by many other countries.

BREAK

World War II ended with the major powers divided into two camps on individual weapon design. The Soviet Union and other European countries wanted each of their riflemen to be a potential, intermediate-range machinegunner in the new fashion, capable of independent assault fire while moving, if necessary. This concept required a break with the rifles of the past.

The U.S. Army, on the other hand, with the best semiautomatic rifle of the war to its credit, thought that the traditional weapons and tactics were best. It still preferred a base of crew-served automatic weapons fire backed by individual marksmanship. Although the rifleman was not expected to fight the battle all by himself, a selective fire weapon would undoubtedly let him make a greater contribution. Consequently, the U.S. Army in 1946 began looking for a possible single replacement for its M1 rifle, M3 submachinegun, M1 carbine, and

Browning automatic rifle (BAR).

As far back as the 1920s and 1930s, the U.S. Army had considered switching to a .276 caliber round, but the Army Chief of Staff at that time, General Douglas MacArthur, insisted on chambering the M1 rifle in a .30-06 caliber, or what is now known as 7.62x63mm US, when it entered service in 1936.

The British took over the idea of a smaller round in 1947 and began working on a .280 caliber round and a very short rifle to shoot it, the EM2 Bull Pup, which had the receiver in the stock behind the pistol grip and trigger. But with the founding of NATO in 1949, both the United States and Britain agreed to cooperate on a standard weapon system that would feature interchangeable parts and ammunition, which would also improve supply.

In 1951, the British seriously thought about placing the EM2 in service, but for the sake of progress agreed to drop their cartridge in favor of the one preferred by the United States, the .308 T65. This 7.62x51mm round was a compact version of the .30-06 and one that took advantage of an improved powder. It was lighter than the .30-06, but it used a similar bullet to produce almost the same power and ballistics. The T65 became the 7.62mm NATO standard round in 1956 and a variety of rifles were chambered for it in an attempt to find one that was suitable for use by all of the NATO armies.

Despite the fact that the 7.62mm NATO round was not an intermediate cartridge, the rifles tested with it at Fort Benning, Georgia, were generally modern weapons using assault rifle technology. They were all capable of selective fire and many had pistol grips and semi-straightline stocks. The British dropped their Bull Pup rifle, because they thought it was too clumsy, but they favored an equally sophisticated design from Belgium, the FN-FAL. Meanwhile, the United States introduced an improved version of the M1 rifle that used a magazine instead of clips, the T44, which was rugged and reliable and which was based on a proven weapon. From 1952 to 1957 the FN-FAL and the T44 were put through punishing trials, but the final decision was determined more by psychology and politics than by mechanics.

GOOD WEAPONS

In 1957, the United States, suspicious of straightline stocks, adopted the T44 (as the M14) because it was a strong, familiar rifle suited for American soldiers. The fact that it was an American design gave it an additional edge. The British and about 50 other nations eventually chose the FN-FAL. Although both were good weapons, they were uncontrollable when fired automatically. Thus, the only thing NATO received from the competition was an updated, full-power rifle round at a time when several of its member countries were looking for something smaller.

Although the M14 was capable of firing automatically, it entered service primarily as a semiautomatic rifle. A version equipped with a bipod was also produced to give

the rifle squad a compatible weapon that was capable of more accurate automatic fire. As a result, the U.S. Army entered the Vietnam War in the early 1960s with a rifle and automatic rifle combination that was not much different from the M1 and BAR team of a war two decades earlier.

Another competitor had been on the market during the NATO trials, the most advanced rifle of all. But it had been submitted in 1956, too late, unfortunately, to be a serious contender. It was the Armalite AR-10. Built to fire the 7.62mm NATO round, it looked like a longer model of the present M16. It was unique in that the propellant gas travelled down a tube above its barrel to unlock the bolt and blow it rearward instead of working against a piston and actuating rod as in most automatic rifles.

Armalite had joined with Fairchild Corporation in 1954 and now began to market the rifle in developing nations. With the constraint of having to chamber its rifle in 7.62 NATO caliber eliminated, Armalite turned to smaller ammunition to make better use of its rifle's features. In 1957, Armalite scaled down the AR-10 to fire Remington .222 high-velocity small game ammunition and started additional developments. After experiencing overheating problems with the rifle, Armalite settled on an improved version of the interim Remington .223 Magnum round for a new rifle, the AR-15.

The AR-15 and its new .223, or '5.56x45mm, ammunition found quick acceptance from foreign customers who needed a handy and inexpensive weapon. In 1958, the U.S. Army Infantry Board recommended that the rifle be adopted to replace the M14, and a year later, in 1959, the Colt Firearms Company took over the manufacturing rights from Armalite to fill the steadily increasing orders.

The U.S. Navy bought a few AR-15s to arm its SEAL teams, the U.S. Air Force ordered a large quantity for its security police at overseas airbases, and in 1962 the U.S. Army purchased some for its Special Forces and other selected units. The AR-15's compact size and low recoil, along with the 5.56 round's flat trajectory, made it an ideal choice for such jobs.

As the conflict in Southeast Asia widened, the M14 and its heavy ammunition became a bother to the American soldier and a burden to his South Vietnamese counterpart. The big rifle was not designed for jungle patrols, close ambushes, or firefights, and its production was stopped in 1963. The only replacement that was readily available was the AR-15. The U.S. Army added a bolt forward assist and a closed flash suppressor to it and renamed the rifle the M16. By 1966, more than 500,000 of the substitute weapons had been rushed into service. The number reached four million by 1976.

The M16 was not an ideal weapon for the conditions under which it had to operate, but it was good enough at the time. The powder in its ammunition had to be changed to reduce fouling, and the rifle's action and barrel had to be kept scrupulously clean and correctly lubricated. Even though the M16's bore and chamber were chrome plated and a new buffer was installed to improve

its performance, the innovative rifle required the same care and maintenance that any other high velocity small-bore weapon would. Unfortunately, combat was not the place for that kind of care and maintenance.

Because of its uncertainty about the best weapon to use in future conflicts, the U.S. Army began seeking, through a series of studies on special purpose flechette individual weapons (SPIW), small arms weapons systems (SAWS), and short range volume fire effects (SALVO), a weapon system to replace the M16 and the rifle squad's M60 machinegun. This new family of selective fire weapons was to have been built, theoretically, around a common action and a high-velocity round. Although the M60 and its 7.62 NATO ammunition was to be retained in the rifle platoon, the squads and the individual riflemen would be capable of fire and movement on their own.

Many weapons were evaluated in these programs, including a heavy barreled M16 that used three magazines attached together like a fan. Eugene Stoner, a noted weapon designer, developed a magazine- and belt-fed gun system that could be tailored to fit a weapon's task, and Armalite offered its AR-18 to fill the need for a new rifle. No replacement for the M16 was found at the time that was worth the cost of completely changing rifles. More recently, however, as a result of its squad automatic weapon (SAW) project, the U.S. Army has adopted a Belgian 5.56mm light machinegun, the M249, which uses both ammunition belts and magazines.

Meanwhile, other nations had also been searching for an ideal individual weapon and cartridge. In fact, countries as diverse as Finland and Israel had embraced and improved upon the AK design in both intermediate and high velocity calibers. (It is estimated that more than 40 million AK derivatives have been made.) But most NATO countries have decided to keep the 7.62 round for their crew-served machineguns only and to use the U.S. 5.56 cartridge with a heavier bullet for any future assault rifles. The Soviet Union is also changing to a smaller cartridge — a high velocity 5.45x39mm round for use with its new AK-74 and RPK-74 weapon series.

Today, the U.S. Army is considering following the lead of the U.S. Marine Corps in adopting the M16A2 rifle when it begins withdrawing worn out M16A1s from service. The A2 incorporates modifications that make it possible to fire the heavier and more powerful 5.56 NATO cartridge accurately at longer ranges and steadily at shorter ones. (See *INFANTRY*, July-August 1983, page 3.)

The M16A2 will be more robust and easier to handle, and it will have more killing power than the rifle it will replace. But it does not represent a real technical advancement in assault rifle development. Rather, the present trend is toward such exotic and ergonomic designs as the Austrian STG 77, the French MAS, and the Swedish MKS, which are better suited for mounted combat or special operations.

West Germany is pioneering the next generation of assault rifles with its futuristic G-II. This small Bull Pup rifle fires caseless ammunition and holds 59 rounds of

closely packed cartridges in a loading device that fits in the stock behind the pistol grip. Because the sealed receiver has no exposed moving parts or ejection system, the G-II will function in conditions that would cause conventional rifles to jam.

What the future holds for the M16 and similar assault rifles is uncertain. Progress in laser technology, particle beam weapons, and body armor construction, and continuing changes in the nature of warfare itself, may force the world's major armies to re-evaluate their philosophies about individual weapons for their soldiers. It is possible, of course, that the small caliber or intermediate range ammunition that is so popular today may come up short on the expanding battlefield of tomorrow.

The employment of thermal imagery, night vision devices, ground surveillance radar, and intrusion warning systems is rapidly stripping away the advantages that limited visibility, concealment, and surprise have always given an attacker. At the same time, defending armor, artillery, and dug-in infantry have the potential to bring down a virtual storm of destructive fire out to the practical limits of observation. Automatic grenade launchers are appearing to beef up the defense, and the extravagant use of long-range machineguns will continue as tracked vehicles help haul them around.

On a larger scale, radiation nuclear weapons may briefly dominate the battlefield as opposing forces mass to break through or to counterattack. Finally, the desert theaters, thought of up to now in terms of naval operations, add an unrealized space-like dimension to modern warfare. The effect of these factors will be to spread out and delay an attacker so that the defender can engage him even earlier at longer ranges. Command, control, communication, and support will become more difficult as small battle groups fight it out in near isolation.

This distant and lonely combat may bring the era of the M16 and the assault rifle as we know it to an end, because the infantry, to survive, will need more powerful ammunition. Future rifles, therefore, may become larger and heavier to support image intensifying and improved image sighting devices and to deliver accurate point fire at greater ranges. But marksmanship training and individual fighting techniques may still be needed to deliver deliberate semiautomatic fire to eliminate enemy armored vehicle commanders, troop leaders, artillery observers, crew-served weapon members, antiarmor missile controllers, and individual soldiers. In fact, as it has on past battlefields, well-aimed, steady rifle fire may just be a major suppressive weapon on tomorrow's battlefield.



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Infantry In Action



Heartbreak Ridge

EDITOR'S NOTE: This is the second in our INFANTRY IN ACTION series. It is reprinted from COMBAT ACTIONS IN KOREA, by Russell A. Gugeler. (Army

Historical Series. Office of the Chief of Military History, United States Army, 1970.) The narrative of this action was written in Korea by Captain Martin Blumenson.

In the complex structure of enemy defensive positions protecting the seven-mile-long hill mass that became known as Heartbreak Ridge, Hill 520 was only a small, subsidiary position — a hump at the western end of a spur from the Heartbreak ridgeline.

Fighting for Hill 520 came near the end of the month-old battle for Heartbreak Ridge. On 10 October 1951, United Nations troops, holding the main north-south ridgeline, had already secured the steep part of the spur ridge that slanted down toward Hill 520. That part of the 520 ridge still in enemy hands consisted of several humps, the last and highest of which was Hill 520 at the blunt tip of the ridge. Responsibility for seizing this hump had passed from the Eighth Army to X Corps to the 2d Infantry Division, and, finally, to its 23d Infantry Regiment and to Company G, whose battalion commander selected it to make the attack.

Fighting had been so severe on Heartbreak Ridge that at one time Company G numbered only twenty-three men. By 10 October, however, enough replacements had joined to build the strength of each of its platoons up to about twenty men. The commander of Company G had gone to Japan for the five-day rest and rehabilitation tour. Accordingly, Lieutenant Raymond W. Riddle, a combat-experienced executive officer, was in command of the attack. He decided to commit his 3d Platoon (under Corporal David W. Lamb, acting platoon leader) to make the first move.

The other two rifle companies from the 2d Battalion were in positions to support the attack. Company F, located on the same ridge just behind Lieutenant Riddle's

men, was prepared to pass through Company G and continue the attack, if necessary. Company E was to support the attack by firing from a parallel ridge five hundred yards to the south (see accompanying map).

The flat top of Hill 520 was not more than two hundred yards beyond Company G's line of departure. On the ridgeline, about halfway between these two points, there was a small knoll. After considering an envelopment of the enemy position by sending Corporal Lamb's platoon into the Fluor Spar Valley — a narrow strip of flat land between his position and Company E on the next ridge to the south, and so named because of fluor spar (the mineral fluorite) mines in the valley — Riddle decided to make a direct assault along the ridgeline. There were enemy minefields in the valley. He could see some enemy movements on the objective. Hoping to draw fire so he could estimate the enemy strength there, Lieutenant Riddle ordered everyone in the company — including the mortar men — to fire on the objective for thirty seconds. The enemy, however, did not return the fire.

When this ruse failed, Lieutenant Riddle called for supporting fires from the artillery, heavy machineguns, and Company E's 57mm recoilless rifles. At about 1300, after ten or fifteen minutes of preparation, he stopped the artillery and instructed Corporal Lamb to double-time his platoon to the intermediate knoll under cover of fire from the machineguns, the recoilless rifles, and the other riflemen in Company G. Once there, he was to set up a platoon base of fire and make the final assault on the objective.

Moving out quickly, Lamb's platoon reached the knoll without difficulty. The machinegun crew set up its weapon and opened fire on the main objective. After deploying his platoon around the base of the knoll, Lamb reported back to Lieutenant Riddle "No casualties yet, but receiving plenty of fire." In response to Lamb's request, Riddle instructed the support elements to intensify their fire, especially on the south side of the objective.

PI-C Harry E. Schmidt, who was with Corporal Lamb's platoon, had a yellow panel wrapped around his waist. His mission was to stay with the lead assault elements so that the supporting elements would know where the platoon was. Although conspicuous himself, Schmidt made it easy for the rest of his company and for men of Company E to identify the most forward position of the attacking platoon.

While the rest of the platoon fired at bunkers on the east end of the hill, Corporal Lamb sent one squad around the left side of the objective. Brisk enemy fire drove the squad back to the platoon base, proving that both the preparatory and supporting fires had been ineffective against the enemy bunkers. Several men from the attacking squad were wounded, and enemy fire, reaching back to the intermediate knob, had caused several other casualties there. Corporal Lamb radioed to Lieutenant Riddle for reinforcements.

Loading the 1st Platoon with ammunition, Riddle committed it to assist in the attack. Lieutenant Jay M. Gano, a recent replacement, commanded the 1st Platoon. Since he was inexperienced in combat, he had instructed

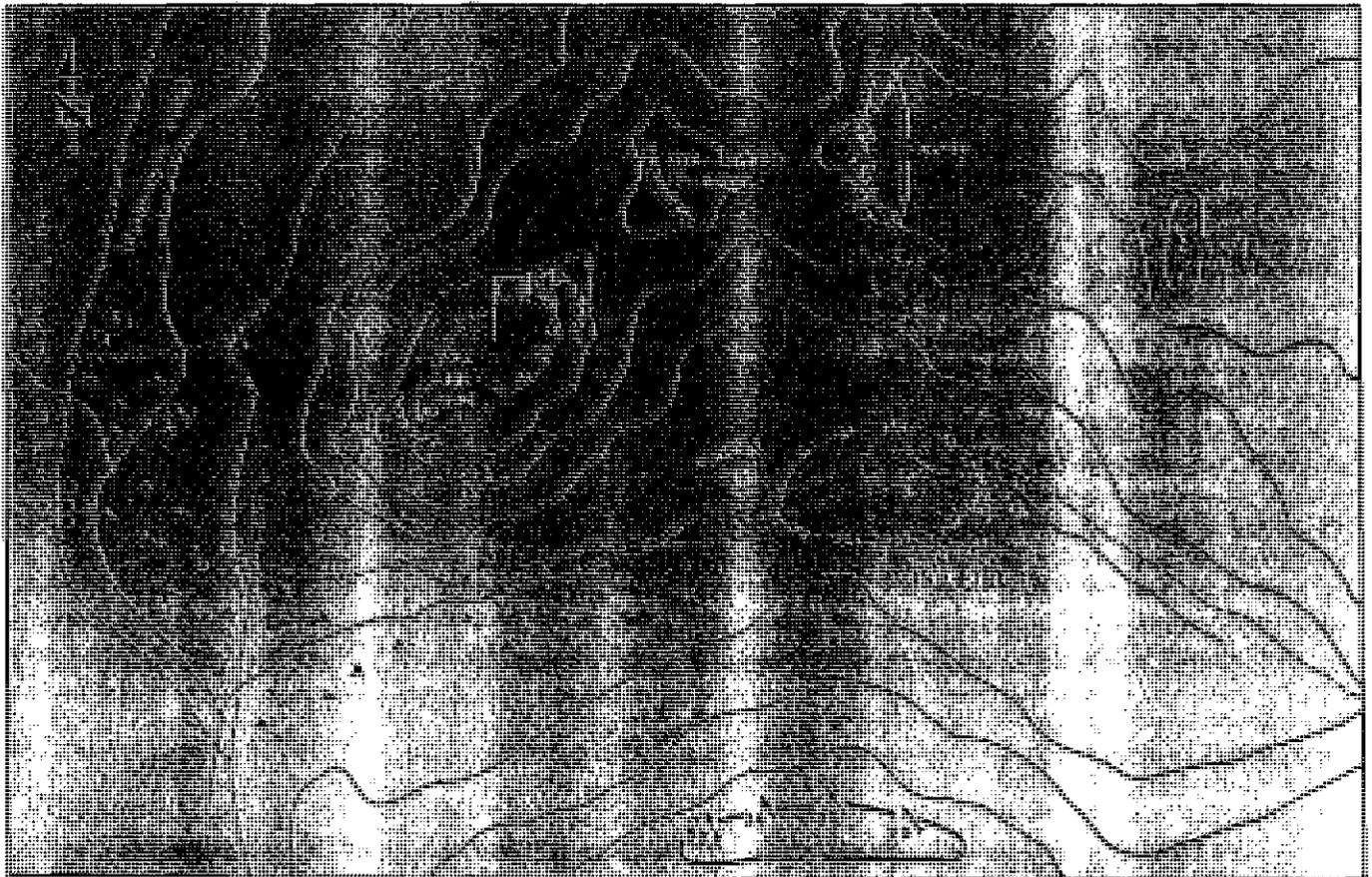
Private Cliff R. High, who had been running the platoon, to continue to do so for the time being.

As the 1st Platoon crawled toward Lamb's position, two men were wounded not far beyond the line of departure. One of them, seriously wounded in the face and neck by a machinegun bullet, became hysterical, and it was necessary for High to hold him down. Farther forward, Lieutenant Gano, with the lead elements of his platoon, had almost reached the intermediate knoll when he was killed on this, his first, attack. The platoon halted, pinned down by hostile fire.

Just at this time Corporal Lamb's machinegun ceased firing. "I'm out of ammo!" the gunner shouted.

Seven or eight enemy soldiers came out of their bunkers and suddenly appeared on the slope of Hill 520 descending toward Lamb's platoon. He reported that he was being counterattacked. Supporting machinegun fire was too high to be effective. Lamb's riflemen opened fire, the ammunition bearers fired their carbines, and even the machinegunner began firing his pistol. Part way down the slope the enemy soldiers stopped, then turned back.

A brush fire had started in the area between Lamb and the company's original position. The haze and smoke from the fire drifted north over High's immobilized platoon, making it impossible for Lieutenant Riddle to see the objective. Taking a chance, Riddle ordered his machineguns at the line of departure to fire on Hill 520. Lamb reported back that the machinegun fire was "just right."



Under cover of the machinegun fire and the smoke from the brush fire, High, having calmed the wounded man, sent him and another casualty to the rear and then worked his platoon forward, meeting eight or ten wounded men from Lamb's platoon who were making their way back to the company.

Corporal Lamb needed more machinegun ammunition, and Lieutenant Riddle sent a squad from the 2d Platoon up with eight boxes. In the meantime, Lamb and High planned their assault.

Several enemy mortar shells now fell among High's platoon, wounding six more men. High sent them to the rear. He now had 11 men besides himself; Lamb had about 12. After the ammunition arrived, the two platoon leaders, leaving six men to man the machinegun and fire rifles from the intermediate knoll, called off their long-range supporting fire and then assaulted with the remaining men deployed in a skirmish line, firing as they moved forward.

Sixty yards of open ground lay between the jump-off point and enemy trenches on the slope of the objective. All went well until, halfway across, the enemy commenced firing automatic weapons. This fire was not effective, however, and did not stop the advance. When the skirmish line reached the base of the knoll, enemy soldiers stopped firing and began throwing fragmentation and concussion grenades. These caused trouble. One of the grenades wounded Lamb. Corporal Arne Severson, seeing the skirmish line falter, picked up his machinegun and walked forward, firing as he advanced. When he reached the base of the hill an enemy grenade exploded at his feet and broke both of his legs. But he set up his gun and continued to fire until the attack stalled. Two men dragged him back.

High moved the remaining members of both platoons back to a covered position and radioed Lieutenant Riddle to bring in the machinegun fire again and to send help, if possible. North Korean soldiers in bunkers on the objective began to taunt High and his men with phrases such as, "American, you die!"

SECOND TRY

Deciding to make a second attempt — this time a close-in envelopment of the objective — High called off the supporting fire again and led about a dozen of his men downhill toward the south, where they could move without being seen or fired upon by the enemy. They then climbed the hill, moving north to the top of Hill 520. When the men broke defilade, the enemy opened fire and began throwing grenades again. A concussion grenade knocked High down. The rest of his men, believing him dead, straggled back to the platoon base. Within a minute or two, however, High regained consciousness and returned to the platoon base where he reorganized the remaining men — about twenty in all.

In the meantime, regimental headquarters had sent three flamethrower operators to the 2d Battalion, two of them designated for Company G and one for Company

F. Lieutenant Riddle sent all three men, their flamethrowers strapped to their backs, forward to help High. One operator was wounded almost immediately upon leaving the line of departure; the other two reached High as he was preparing to make another assault. He sent one flamethrower operator and two riflemen directly to the front.

Under cover of fire, the men crawled into positions from where they could place flame on the foremost (eastern) bunker on Hill 520. As soon as this bunker was destroyed, High led the rest of his platoon around to the left and formed a skirmish line facing another enemy bunker on the south side of the hill. In position, he signalled the flamethrower to open up. As soon as the flamethrower commenced operating, High was to signal for the assault. This time the flamethrower failed to work.

By then only two enemy bunkers were interfering with the attack. A machinegun was firing from each. High decided to make the assault without the flamethrower. He sent a Browning automatic rifle (BAR) team to knock out one bunker while he, with a rifleman and the third flamethrower operator, walked toward another. Firing as they walked, the men exposed themselves because High feared that if they tried to crawl they would be pinned down. Ten yards from the bunker, the second flamethrower failed to work. Standing exposed to enemy fire, the operator took it apart but was unable to repair it. Finally, High told him to get out of the way because he was too conspicuous.

High stationed one of his riflemen in front of the bunker. Unable to hit anyone in it, he nevertheless prevented the North Koreans from firing and thus neutralized the position. Just about that time an automatic weapon began firing from another bunker on the left, and High told Private Joe Golinda to get it. Golinda approached it from one side, High from another, while a third man covered them. Golinda threw a grenade into the bunker, and the gun stopped firing.

With only a few men firing rifles and BARs for support, High and four or five other men made the final assault on the top of Hill 520. Private Schmidt, still wearing the yellow panel wrapped around his waist, stayed up with the foremost men as he had throughout the attack. The group moved on around the hill, firing into the apertures of three other bunkers. All were empty. Once they reached the top of the hill the men saw eight enemy soldiers running over the hill toward the northwest, and opened fire on them. On the north side of the hill High came upon a bunker that had been the enemy's command post. Eight enemy soldiers, still holding their weapons, were huddled in front of the bunker. When High's men fired into the group the North Koreans threw up their hands and surrendered themselves.

The knoll was secure at 1600. Company G had incurred slightly over thirty casualties, most of which were due to minor grenade wounds. Several other casualties were sustained by the mortar men as a result of enemy counter-mortar fire.

TRAINING NOTES



Dragon Training Update

MAJOR CURTIS L. DEVAN

Dragon training has come a long way since the weapon came into the Army's inventory in 1974.

Early training programs for the Dragon, unfortunately, did not include enough instruction to enable field units to train their soldiers to be qualified gunners. The manual that was fielded with the Dragon specified only a 15-hour program of instruction (POI) with quarterly sustainment training. In 1979 that POI was superseded by a 40-hour interim training program (ITP) that emphasized tactically-oriented performance tasks as well as gunnery skills. But even with the ITP, gunner proficiency with the Dragon remained unsatisfactory until September 1981 when the present 80-hour revised ITP was implemented.

This program devotes more time to Dragon gunner training, eliminates the self-paced course, establishes the sitting position as the primary firing position, limits the number of launch effects trainer firings (20 rounds a day per gunner), and provides new tracking tables.

The program also establishes gunner selection criteria. The most important of these criteria are the soldier's desire to become a Dragon gunner and his commander's evalua-

tion of his overall abilities. But there are other criteria as well — a prospective gunner must have:

- The ability to flex the upper trunk right and left.
- The ability to crouch comfortably in the kneeling position.
- The ability to control his breathing by holding his breath throughout the sequence of target acquisition, firing, and tracking.
- Vision that is correctable to 20/20 and the ability to close the left eye independently of the right without strain or flutter. (Soldiers with the left eye dominant should *not* be selected.)

DEVICES

Several devices have been fielded in the past few years to assist the Dragon training program. The first was the field handling trainer (FHT), an expended tactical round refurbished to simulate the tactical round in weight and configuration. It gives the gunner some experience in the tactical employment of the weapon and, to a limited extent, in handling, arming, and tracking the round. It is an inexpensive device.

Another device, the launch effects

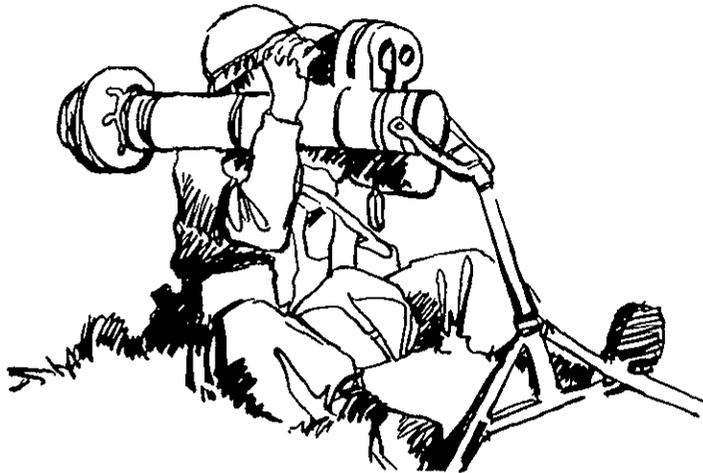
trainer (LET), simulates the tactical round in appearance, weight, and recoil; in weight shift from the gunner's shoulder; and in time delay between trigger squeeze and launch. It is used primarily to improve the gunner's proficiency in tracking. (Without monthly training on a device such as the LET, Dragon gunners will lose about 25 percent of their accuracy.)

Although it is still the primary trainer for the Dragon, the LET has one shortcoming: it does not duplicate the noise, flame, and smoke produced by a live missile. In the past, the only way for a unit to overcome this training deficiency was to have its gunners fire a tactical round and hope for the best. But tests have shown that a gunner needs to fire at least two missiles to overcome the launch effects of live rounds, and this is an extremely costly operation.

The possibility of using the M175 viscous damped mount and a new, lightweight tripod has also been examined, but tests have shown that Dragon gunners do no better with these than they do using the conventional bipod firing position.

The realistic launch environment that is lacking in the LET will be available soon in a new device known

as the launch environment simulator (LES), which will be fielded by the end of this year. The LES duplicates the launch effects of a live Dragon missile by using a glow plug to ignite a mixture of explosive gas and oxygen. The LES's realistic simulation includes recoil, high noise level, blast overpressure, flame, smoke, debris, and short-term target obscuration. In short, the Dragon LES produces the aspects of the launch environment that most influence the gunner's performance when he is firing the actual round.



According to preliminary tests, gunners who are trained with the LES will have a higher probability of getting hits with their first live rounds. Too, the LES can be coupled with the LET's monitoring set to evaluate a gunner's performance in real time by comparing his ability to track a previously defined aiming point.

The LES program will use the same gunner scorecard that is now used in LET training. Although a gunner is limited to firing no more than 20 LET rounds per day, a unit will be able to use the LET for 15 rounds and the LES for 5 rounds. (Because of the realistic launch effects of the LES, a gunner will be limited to firing 5 rounds in a 24-hour period.) And when using the LES, a gunner, every quarter, must achieve three hits in five engagements.

(At first, because of the limited number of LES devices in the Army — 245 — units may experience long lines at their local Training Audiovisual Support Centers.)

The Multiple Integrated Laser Engagement System (MILES) is also important in Dragon training, but there are some areas of concern that must be dealt with.

First, although the principle behind MILES-Dragon training is sound, the antitank weapons effect signature simulator (ATWESS) used with MILES was designed to help vehicle crews identify antiarmor fires. But the ATWESS produces a blast only from the aft end of the Dragon, and this is unrealistic. Besides, its tracking time is only seven seconds, which

simulates a range of about 700 meters. To be truly effective, a gunner should be able to use the maximum range of the Dragon (1,000 meters).

The weapon effects simulation characteristics also cause problems if MILES is used for gunnery training. The probability of a kill, given a one-round hit, is automatically fed into the MILES transmitter, and this is not acceptable for gunnery training. Only the gunner's ability to put a missile on target should be evaluated, not the mathematical probability of having one round register a hit. For example, the Dragon is assigned a 76 percent probability of a one-round kill on a tank at 1,000 meters. Thus, about one out of every four times a gunner hits the target, he will automatically register a "no-hit" no matter how accurate his tracking might have been.

Another area of concern is that the AN/TAS-5 Dragon night tracker cannot be used with MILES. To get the

most from training, gunners should be able to use the Dragon night tracker with an inert tactical round to get realistic thermal training using the night sight.

Future generations of MILES devices for use with the Dragon are expected to improve Dragon gunner training. For example, new MILES sights, using computer technology, will be able to simulate smoke and other target obscuration. They will also show a representation of the aft end of a missile in flight, thus giving a gunner a realistic picture of what he will see when he fires a live round.

To further improve Dragon gunnery, in the near future gunners will be able to qualify on the Dragon by using a device known as STAGS, or simulated tank antiarmor gunnery system. In fact, STAGS, which is composed of a terrain board, an instructor station, and a gunner station, will be the key to training for our entire family of antiarmor missiles. Testing and evaluation on the first version will begin in January 1984.

This device, using computer simulation, will realistically duplicate the actual launch of a Dragon missile. The instructor will be able to monitor the gunner's sight picture and also his errors in azimuth and elevation. The instructor then will either recall the flight of the missile on a visual display or print out a copy of it. The STAGS will be used for day and night qualification as well as for quarterly sustainment training.

All in all, the STAGS and LES devices will offer distinct improvements in Dragon training and will give the Army a long-sought alternative to the rising cost of live fire training.



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Good Maintenance

CAPTAIN ARTHUR A. DURANTE

Any commander has to do a juggling act with his various requirements, and to keep from fumbling and dropping one of them, he also has to be able to carefully balance his allocations of time, manpower, and supplies.

Two of the most fragile of these requirements are maintenance and training. If a commander drops either, or both, his career could also be shattered. And of the two, the one commanders are most likely to drop is maintenance.

But this need not happen, of course. No infantry unit commander should ever fumble his maintenance requirement, and he won't if he develops a good unit maintenance program for his vehicles.

To have a good program, a commander must first decide exactly what the term means. Too many commanders do not think beyond the traditional benchmark — a 90 percent operationally ready (OR) rate. But they should, because a good vehicle maintenance program is much more — it is an efficient, effective, and self-perpetuating system of service and repair that discovers and immediately corrects any fault on any piece of equipment. Thus, the cause — good maintenance — can be separated from the effect — a high OR rate. This, in turn, should keep sporadic periods of intense activity from masquerading as good maintenance, although its results may well be a spectacular and heartening rise in the OR rate.

Too often, unfortunately, vehicle

maintenance operations are inefficient operations, usually because inefficient procedures have become entrenched, and no one wants to change the way things have always been done. For example, the prescribed load list (PLL) operation in many units is grossly inefficient, and the commanders of those units frequently fail to realize how much that inefficiency can detract from their entire maintenance program. A good vehicle maintenance program starts with a good PLL operation, and it will pay important dividends to a unit commander if he examines that operation with a critical eye.

PLL CLERK

It is absolutely essential for the PLL clerk to be extremely capable. If he is not well trained, an intensive training program for him must be started — immediately. If he cannot do the job to the exacting standards laid down in Army Regulation 710-2, he should be replaced.

In this job, motivation and desire to excel far outweigh the need for any formal MOS schooling. Motivated soldiers can do well as PLL clerks with only a minimum amount of formal training; poorly motivated soldiers will never be good PLL clerks, regardless of how much formal schooling they may get.

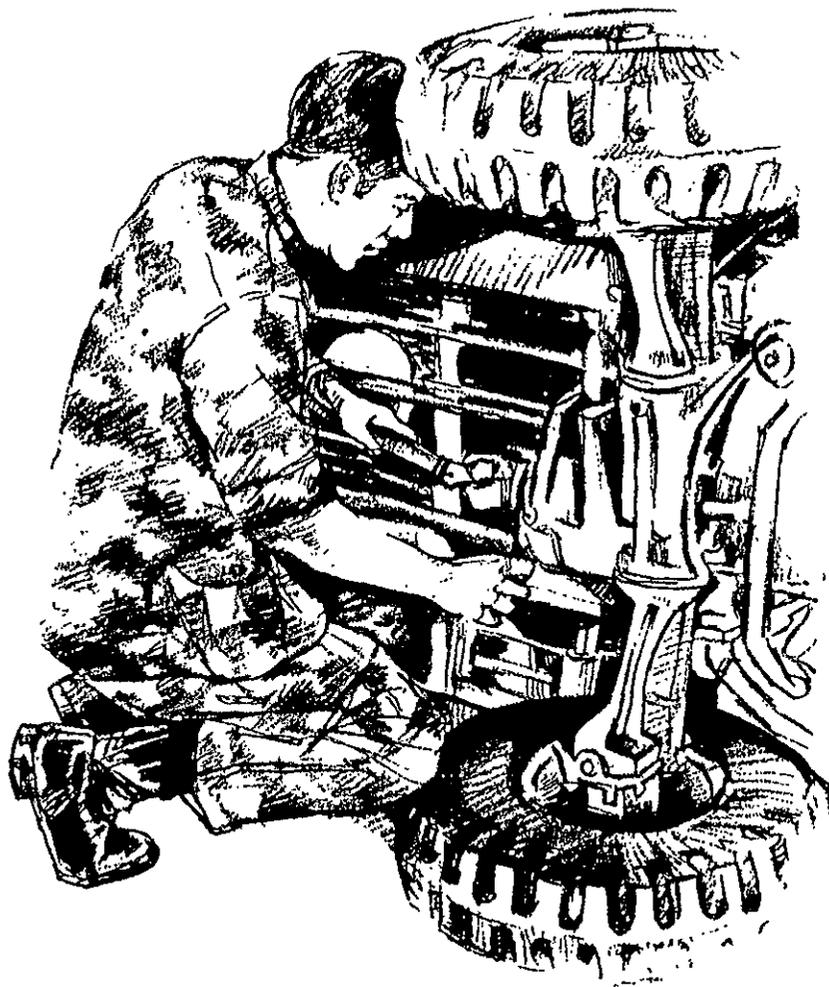
It is important, too, for PLL items to be stored as close as possible to the area where the actual repair work is to be done. In the field, this means hav-

ing the PLL items loaded on vehicles that can move to a particular job site, or to a location that is central to several repair sites. In garrison, it means having PLL items either on or adjacent to the workshop floor.

PLL items must also be secured so they cannot be reached by unauthorized personnel. A mechanic, for instance, should not be able to get a part unless his PLL clerk knows about it and properly annotates the transaction. Otherwise, the PLL clerk's time will be wasted, because he will then have to perform unnecessary inventories and he will not be able to provide replacement parts when they are needed.

A highly motivated PLL clerk can do much to create an efficient maintenance operation — his PLL items are on or near the shop floor, his records and forms are prepared in accordance with regulations, he has no worry about the pilferage of parts, and he maintains a good working relationship with his unit's direct support unit.

An *effective* maintenance operation, on the other hand, can best be achieved by combining command interest with systematic review. Thus, a unit's maintenance operation should be supervised by the chain of command from the lowest to the highest level. This does not mean that a commander must set up his office in his maintenance area. It does mean that he must demonstrate to everyone in the unit that he considers maintenance critically important. He should demand that maintenance must be done continuously and well, and he must



hold everyone in the unit's chain of command responsible for making certain that the proper maintenance is performed on each vehicle. Even his most junior NCOs should understand what is expected of them. The least effective maintenance operation is the one that has privates in the motor pool and the sergeants in the mess hall, yet that is all too common in many units.

Systematic review can be achieved if everyone in the unit who is concerned with maintenance strictly adheres to the procedures outlined in TM 38-750, The Army Maintenance Management System. This manual says that a piece of equipment must be inspected by an operator before it is used and that the results of the inspection, listing any and all repairs needed, must be record-

ed on a DD Form 2404.

The DD 2404, therefore, is the backbone of any systematic review program. Accordingly, a unit should establish a system whereby the generation, flow, and disposition of DD 2404s are strictly controlled. (See INFANTRY, May-June 1983, pages 13-15.) In addition, other inspections — monthly or quarterly, for instance — should be performed by personnel who are more technically qualified than the operators; these inspections should ensure that equipment problems are located and remedied before they can cause the failure of any component part. These inspections should not duplicate the operators' efforts, but should concentrate on areas in which the operators

are not technically qualified to determine if a fault exists.

The third element of a good maintenance program — self perpetuation — is a function of training. When a commander complains about maintenance taking up his training time, he should remember that maintenance is also training. A unit that has the best maintenance program in the Army today but does not have a *maintenance training* program will soon have, because of normal personnel turnover, no maintenance program at all.

A unit's maintenance training has to focus on the operator's manual for a particular vehicle. Soldiers should be trained by their section or squad leaders; those leaders should be trained by their platoon sergeants to inspect the vehicles and to properly complete the DD 2404s; and the platoon sergeants, in turn, should be taught by the platoon leaders and company commanders how to spot check and correct improper maintenance procedures. Only this will ensure that the unit will continually produce the trained operators it needs.

Unit mechanics, of course, also play a vital role in any maintenance effort. But without a system in which everyone in the chain of command is trained and motivated to supervise operators in maintaining their equipment, the efforts of these few men will be lost.

None of these requirements for good maintenance are new; none are revolutionary. They are nothing more than common sense ways of improving the efficiency, effectiveness, and self-perpetuation of a good vehicle maintenance program. If those three elements are present in his program, an infantry unit commander can rest assured that his unit's vehicles will be able to function effectively whenever he needs them.

CAPTAIN ARTHUR A. DURANTE has commanded rifle and headquarters companies and has served as a battalion S-4, all in Germany. A 1971 ROTC graduate of Colorado State University, he is now assigned to the Directorate of Training and Doctrine at the Infantry School.

Mortars in MOUT

MAJOR THOMAS H. WHITLEY
CAPTAIN CARL W. RIESTER

Fighting in cities is not something that Infantrymen look forward to. At best, it is fraught with uncertainty and guaranteed to be extremely hazardous. And while the current doctrine of both the United States and the Soviet Union tends to downplay fighting in cities, one look at a map of Europe will show that military operations in urban terrain (MOUT) will be unavoidable in any future fighting there. Tactical commanders at all levels will almost certainly have cities or towns within their sectors of responsibility.

Although mechanized infantry battalion commanders will have various means of fire support available in a MOUT situation, their most responsive and perhaps most effective fire support will come from their own mortars. They must understand, though, that their mortar units are going to encounter some difficult problems in rendering that support.

For example, the terrain in an urban area, especially that in a large urban complex, probably will not offer many dependable firing positions. There may be some parks, courtyards, and lawns that can be used for firing positions, but more often the mortars will have to be positioned in less ideal places, such as on hard-surfaced areas — cobblestone walks, or asphalt or concrete streets.

In the latter cases, sandbags (if they are available) might be enough to steady the baseplates, but they may not be enough and crew members may

have to physically stand on the baseplates to stabilize the guns when they are fired. Crew members may also find themselves holding the bipod legs in place if they expect to get any accuracy at all from their rounds. The aiming posts should present no problem — they can be secured in cans filled with dirt or rubble, or they can be driven into sandbags.

The mortars should be positioned so that they have the greatest possible overhead and mask clearance. They



should not be placed on top of or inside a building, because the shock of their firing could cause the structure to crumble, or the overpressure could cause casualties among the crews.

If the mortars can stay in one place for some time, the crews can improve their positions to protect themselves from direct small arms fire — from snipers, in particular. If the guns cannot be dug in, their crews can build parapets around them from sandbags or dirt-filled ammunition boxes. If neither is available, rubble, which

should be abundant, can be stacked to provide protection.

In some situations, the mortars may have to be moved frequently to keep them from being detected and destroyed by the enemy's counter-battery fire. At such times, a careful reconnaissance of multiple firing positions must be conducted and the gun crews must be prepared for sudden and rapid moves to new positions.

The ammunition to be used in any given situation will depend, of course, upon the fire missions the supported units call for.

If high explosive rounds are to be used, their fuzes should be set at either "quick" or "delay" to get the most from their suppressive or casualty-producing effects. (Proximity-fuzed rounds are not particularly useful, because an opposing force can usually find some kind of overhead cover in an urban area.)

White phosphorous rounds are useful in obscuring or covering the movement of friendly units, but they should be used carefully because they can easily start fires.

If the supported friendly units are attacking at night, illumination rounds should be used to burst directly over the opponent's positions. If the friendly units are defending, illumination rounds should be fired to burst behind the friendly positions. In many MOUT situations, however, illumination rounds will not be particularly effective because of the shadows cast by any still-standing buildings — par-

ticularly the high-rise kind.

It will be up to the battalion commander to decide how he wants to use his mortars and whether he wants them kept on or taken off their vehicles. For example, he may decide to place his entire mortar platoon — or a section of it — under the operational control of a single infantry company. Or he may decide to keep the platoon under his direct control to better concentrate its fires on selected targets.

When they are left mounted on their vehicles, the mortars can be posi-

tioned more easily, but only if the tracks can be maneuvered through the rubble. The vehicles will also provide the crews with more protection as well as with stable firing platforms.

Almost every war that has been fought during the past 50 years has seen infantry units engage in MOUT operations — at Hue and Quang Tri in South Vietnam, for instance, and, more recently, in Beirut. Such operations are almost certain to take place in any future war as well. If they do, the mortar, because of its high trajectory and immediate responsiveness,

will be the Infantryman's most valuable indirect fire support.

MAJOR THOMAS H. WHITLEY, now assigned to the 1st Armored Division in Germany, formerly served with the Weapons, Gunnery, and Maintenance Department of the Infantry School. His other assignments include a tour in Vietnam and command of a combat support company. He holds a master's degree from Georgia State University.

CAPTAIN CARL W. RIESTER, now serving with the Berlin Brigade, previously led an 81mm mortar platoon and a battalion general support mortar platoon. A 1977 graduate of Westminster College in Missouri, he has completed the Infantry Officer Advanced Course and the Infantry Mortar Platoon Course.

Motorcycle Scouts

MAJOR FREDERICK D. LEDFORS
CAPTAIN PATRICK J. O'CONNOR

The 24th Infantry Division (Mechanized), in its efforts to find the proper mix of heavy and light forces, has been testing a number of different organizational concepts. Recently, during two weeks of desert training at the National Training Center, it used three motorcycle scout sections provided by the 101st Airborne Division (Air Assault). Both divisions learned some valuable lessons from the experience.

The motorcycle scouts linked up with the two heavy task forces allocated to the exercises — one armor, the other mechanized infantry — in their respective desert assembly areas two days before the operation began. Later, they rotated between the two task forces.

The heavy units had no experience in how to use motorcycle scouts, and the scouts, for their part, had only recently completed two weeks of

training on their new 250cc vehicles and had not tested them in the desert. But once representatives of both units started talking, the concepts involved were worked out, and each side came to appreciate the capabilities and limitations of the other.

MISSIONS

During the intense combat operations that followed, the motorcycle scouts conducted several specific missions: They reconnoitered zones, areas, and point locations; conducted listening and observation post, counter-reconnaissance, and linkup operations; provided security for tactical operations centers at task force and brigade levels; located OPFOR obstacles; and acted as messengers and guides.

The motorcycle scouts, working in

teams of two and using the terrain to mask their movements, were able to move to places no other military vehicle could possibly get to undetected. Their quiet engines made them virtually undetectable as reconnaissance vehicles.

When the scouts were forced to move in areas without cover, their motorcycles' small profiles and mobility saved them from being hit by small arms fire. They could cover the gaps between task forces and the intervals between teams to counter the OPFOR's reconnaissance efforts.

The M16s the scouts carried, like all the other weapons used at the National Training Center, were equipped with MILES (Multiple Integrated Laser Engagement System) gear. The scouts also carried VIPERs; this weapon gave them an anti-vehicle capability when they needed it either to break contact or to

use in destroying OPFOR reconnaissance vehicles when the opportunity presented itself.

Because they required very little logistical support, the motorcycle scouts could conduct long-term missions, often operating for long periods of time to the front or the flanks of the task forces' heavy scout platoons.

Despite these positive aspects, though, the exercise was not without problems. The AN/PVS-5 night vision goggles were used extensively, but they did not offer much depth perception. This, coupled with the inherent instability of a loaded motorcycle, made night missions exceedingly difficult. But by simply slowing the speed of their cycles and by practicing night riding without visual aids, the scouts eventually improved in this area.

Another problem was that the cyclists could be neutralized by the OPFOR's massed indirect fire. A thorough knowledge of OPFOR tactical doctrine enabled the scouts to protect themselves by avoiding areas normally targeted by enemy artillery. Their training in the use of all available cover also helped them survive.

Surprisingly, one of the most positive attributes of these light scout units, their mobility, turned into a problem because they often outdistanced their support requirements, few as they were. Bulk items such as water and fuel had to be carried by someone else, and they had to have MOGAS instead of diesel fuel. (The heavy scouts carried these extra items forward for them.)

Communications were sometimes a real problem because of the distances over which the motorcycles could operate. But this was taken care of by

having the heavy scouts in each task force relay communications for the cycle-mounted scouts. In addition, the track-mounted scouts that were not equipped with TOWs often transported one or two motorcycles inside their vehicles to locations where the cycle scouts could operate more independently. But simple external racks for the motorcycles might also be mounted — similar to those used for helicopter-carried cycles.

INTELLIGENCE

Motorcycle scouts such as these are potentially one of the most valuable sources of intelligence for a brigade commander. But because intelligence on today's fast-moving battlefield is always time-sensitive, a brigade commander must see that his motorcycle scouts are closely controlled. He must also have an effective communications system that will ensure the timely transmission of information to the headquarters that needs it. In addition to receiving information, his headquarters must also be able to redirect the scouts' efforts quickly when rapid changes in the battlefield are required.

The test showed that other measures as well could be taken to increase the effectiveness of cycle scouts when they operate with heavy task forces:

- Each scout should be equipped with a radio such as the UHF model Ranger units now used. These radios are light and do not depend so much on line of sight.

- Routine SOP check-in times should be required to back up radio communications and to resupply the cycle scouts.

- Very specific missions should be given, and essential elements of information should be expected within specific time periods.

- The scouts must be told where to operate and, specifically, where the most likely areas of activity are instead of being given free run of an area.

In addition to these measures, commanders should emphasize training for cycle scouts in map reading, navigation, range estimation, and OPFOR vehicle and unit identification. These skills are vital, and accuracy is as important as timeliness. A cycle scout who can call for and adjust artillery may slow the enemy just enough for commanders to react, especially if the OPFOR has surprised them.

Motorcycle scouts, whether on a desert battlefield or on some other kind of terrain, can add flexibility, speed, and depth to the reconnaissance effort of our heavy units. But only through detailed planning for command, control, and communications can the motorcycle scouts be considered a meaningful asset. Motorcycle scouts can deliver timely, accurate OPFOR information that can well mean success to the resourceful commander who uses them properly.

MAJOR FREDERICK D. LEDFORS is executive officer of the 124th Military Intelligence Battalion, 24th Infantry Division, at Fort Stewart. At the time of the exercise at Fort Irwin, he was S2 of the 2d Brigade.

CAPTAIN PATRICK J. O'CONNOR, during the exercise, was a company commander in the 1st Battalion, 503d Infantry, 101st Airborne Division (Air Assault). He is now division reenlistment officer with the 101st Division.



ENLISTED CAREER NOTES



BRANCH CHIEF'S COMMENTS

Our soldiers are the Army, and the guts of our Army is the combined arms team led by the world's toughest, proudest, most competent NCOs. The Infantry noncommissioned officer in the United States Army has always had the reputation of being tough, proud, and competent. And the NCOs in the Infantry/Armor Branch Team in EPMD, MILPER-CEN, feel that they have an important part to play in making this happen through the professional development, worldwide assignment, and personal well-being of our fighting men and their NCO leaders.

The NCOs who are assigned to Infantry Branch are field-tested veterans who understand your needs, aspirations, problems, and complaints. They will do what is best for you while also seeing that the imperatives of the U.S. Army are accomplished. But you can make this process both easier and more efficient through your personal involvement in reviewing your own records periodically, telling us what you want to do, and letting us know about any special requirements you may have.

The next several years are going to be exciting and challenging for the Army's leadership — especially for combat NCO leaders. The M-series vehicles, the Regimental Affiliation System, and Division 86 will challenge all of us. These initiatives will directly affect unit cohesion, unit readiness, and combat capabilities. Consequently, personal and professional decisions during this dynamic transition will be particularly significant. Throughout this period, your professional development through assignments, schooling, specialized training, and promotions will be important to you and to the Army.

By working together we can ensure that your needs and the Army's needs are fully realized.

You have the high privilege and responsibility to lead our great soldiers, keep our small units robust, and deter the enemy by his knowledge of your thirst for victory. We at Infantry/Armor Branch salute you for your professionalism.

LTC GARY L. PAXTON

HAAP ASSIGNMENTS

Many questions are directed to the Infantry Branch concerning eligibility for the Homebase/Advanced Assignments Program (HAAP).

Under this program, enlisted soldiers in the ranks of SGT/SP5 through MSG/ISG who are assigned to go overseas on dependent-restricted 12-month short tours will be informed of their next assignments before leaving CONUS. When possible, these soldiers will be returned to their place of prior assignment. Members of Cohesion Operational Readiness and Training (COHORT) units under the New Manning System who are deployed overseas for unaccompanied 18-month long tours may voluntarily elect a homebase assignment. Advanced assignments to CONUS will also be given to members in those ranks who go from an overseas long tour to a dependent-restricted 12-month short tour.

A SP4 on a promotion list who receives assignment instructions and is promoted to SGT before departing from his present duty station will be given a HAAP assignment. But a SP4 on a promotion list who is not promoted until after he arrives in the short-tour area is not eligible for a HAAP assignment. Each soldier

should initiate a DA Form 2635 preference statement about 10 months before his scheduled Date Eligible to Return from Overseas (DEROS).

A soldier assigned to an accompanied tour area who voluntarily elects to serve a 12-month "all others" tour is not eligible for a HAAP assignment.

Hawaiian residents may be given HAAP assignments to Hawaii, but CONUS residents and residents outside the contiguous 48 states, less Hawaii, will not be involuntarily homebased in Hawaii.

Requests for changes in HAAP that are submitted by soldiers currently serving in short-tour areas will normally be disapproved, but exceptions to this policy will be reviewed individually when submitted to Infantry Branch.

Soldiers who already have HAAP assignments but elect to extend their foreign service tours will normally be reassigned to their original HAAP assignments provided there are valid requirements at the original locations of the approved HAAPs. In cases where there are no valid requirements at these locations, soldiers will be reassigned to locations in CONUS where valid requirements do exist.

Soldiers who are serving in dependent-restricted short-tour areas who are selected to attend the Sergeants Major Academy when they return to CONUS and who have previously been given HAAP assignment will no longer be eligible for that HAAP. However, if a soldier declines to attend, he will be reassigned to his originally approved HAAP upon returning to CONUS.

Soldiers who are qualified parachutists (SQ1 "P") will be provided HAAP assignments to installations that are authorized parachutists, except when the number of assign-

ments exceeds the number of requirements for parachute-qualified soldiers at the installation.

Infantry Branch will make every effort to honor all HAAP assignments, but sometimes may be unable to do so because of the needs of the Army.

CEREMONIAL DUTY

The 3d United States Infantry (The Old Guard) is continually looking for qualified soldiers to serve as members of the Army's official ceremonial unit. Stationed at Fort Myer, Virginia, the Old Guard has a proud heritage that predates and parallels that of our constitution. The 3d Infantry, established in 1784, is the oldest active unit in the U.S. Army.

The Old Guard provides security for the nation's capital in times of civil disturbance or national emergency, and it is also responsible for conducting all military ceremonies in the Washington, D.C., area. Old Guardsmen must also be prepared to perform regular Infantry unit missions and therefore routinely undergo individual and unit tactical training.

The Old Guard has many specialty units — The Old Guard Fife and Drum Corps, sentinels at the Tomb of the Unknown Soldier, the Caisson Platoon, the Continental Color Guard, the U.S. Army Drill Team, and the Command-in-Chief's Guard, for example — which are well known and highly publicized throughout the free world.

Being a member of a prestigious unit such as the Old Guard is an honor, and not everyone can qualify. A soldier who wants to become a member must meet the standards outlined in Table 8-4, AR 614-200, must have a high school diploma or a GED equivalent, and must have a GT score of 100 or better. He must also have a record of performance and conduct that indicates a good potential for duty in positions that may require exposure to the President of the United States, heads of state, and local and foreign dignitaries.

Applications are now being considered from active duty soldiers in the ranks of SGT(P), SGT, and SSG in MOS 11B for assignment.

Anyone who wants further information may call The Old Guard's recruiting team at AUTOVON 222-2731/32 or commercial (202) 692-2730/31/32, or write to Commander, 3d U.S. Infantry (The Old Guard), ATTN: ANOG-REC, Fort Myer, Virginia 22211.

NEW TRAINING COURSE (03C)

The Soldier Physical Fitness Center at Fort Benjamin Harrison, Indiana, recently began offering a seven-week training course for soldiers in MOS 03C (Physical Activities Specialist).

The course is designed to give 03C soldiers the skills they need to advise other soldiers and commanders on their exercise and sports programs and to assist more effectively in the management of recreational facilities.

This is the first time a formal training course has been offered to 03C soldiers. Plans for the future include the development of advanced individual training and schooling under the NCO Education System.

The new program of instruction includes training in physical conditioning and testing, diet and nutrition, weight control, physiology, cardiopulmonary resuscitation, weight training, injury prevention, exercise prescription, and recreation management.

In addition, mental and physical profile standards for entry and retention in MOS 03C have been set at a Skills Technical Test Score of at least 105. Each holder of this MOS also must have a physical profile of all "ones" except for vision, which may be profiled at "two." If a soldier fails to meet the revised aptitude area score but otherwise qualifies, a waiver may be granted by appropriate reclassification authority. (Change 19 to AR 611-201, effective 1 March 1983, includes these changes.)

All soldiers with primary MOS 03C who meet the revised standards will

be required to attend formal training at the Soldier Physical Fitness Center before 1 October 1984. MILPERCEN is now screening the records of all soldiers who have 03C as a primary specialty to determine those who meet these standards. Those who do not should take action immediately to verify their physical profiles and revalidate their ST scores.

Military personnel officers are being asked to act immediately to upgrade the physical profiles and revised ST scores of soldiers in this MOS once verification of profiles and test scores are obtained.

For more information about the training course and new mental and physical standards, anyone who is interested may contact MSG Mosley, HQDA (DAPE-MRD-RT), at AUTOVON 225-7485.

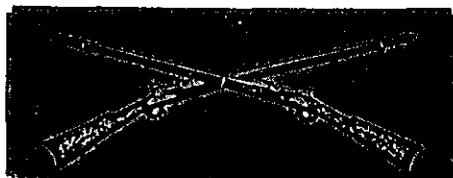
CLUB MANAGEMENT

The Army is looking for soldiers in the ranks of SGT/SP5 to SFC/PSG to fill current openings in the club management career program.

To qualify, an NCO must have less than 16 years of service and must have previous experience in food service, business administration, or financial management.

Soldiers who are accepted for the program will receive on-the-job training in club manager positions before attending the nine-week Club Management Course at Fort Benjamin Harrison, Indiana.

Soldiers who are interested in the program should talk with their local military personnel officers and comply with the procedures given in Chapter 7, Change 1, Section VIII of AR 614-200.



OFFICERS CAREER NOTES



EDITOR'S NOTE: In the July-August 1983 issue we included items especially aimed at lieutenants and captains. In this issue, we concentrate on information for lieutenant colonels and majors.

FOR LIEUTENANT COLONELS

In Specialty Code 11 the major concern for lieutenant colonels continues to be battalion command selection. About 45 Infantry battalion commands (both TOE and TDA) are projected to become vacant in Fiscal Year 1984. Preferences for command must be updated to assist Infantry Branch during slating. With more than 1,100 eligible lieutenant colonels and promotable majors the competition will be keen.

Very few troop vacancies are projected at divisional posts for lieutenant colonels in SC 11 who have not been selected for command. Opportunities to serve with troops will be available in other assignments including Reserve Component duty (dedicated brigade advisors, assistant Senior Army Advisors, division/ARCOM advisors); Inspector General positions at major command, installation, and corps levels; and staff positions at TRADOC schools and major commands.

Brigade advisory positions require mature officers with extensive troop experience (brigade or below) and the ability to work independently. IG positions require the same type of officer and are nominative, requiring the approval of the Inspector General of the Army.

Overseas assignments with troop units in SC 11 will also be limited. Possibilities range from IG positions to positions on joint and unified staffs. Anyone who wants an overseas assignment should let his assignment officer know.

The priority for the assignment of former battalion commanders is given to corps and division staffs and TRADOC schools. Several requirements are expected for instructors at the Combined Arms and Services Staff School (CAS³) at Fort Leavenworth.

About half of all Infantry lieutenant colonels serve in SC 11 positions at one time. The other half serve in their additional specialties according to Army requirements and their need for continued professional development. Not all officers will spend an equal amount of time in both of their specialties.

The average percentage of time for assignment and professional development in an officer's additional specialty is influenced by the utilization rate for that specialty. The utilization rate is determined by dividing the Army's total requirements for a given grade by the total number of officers designated in that specialty and grade. The ideal situation occurs when an officer has two specialties both of which have utilization rates of 50 percent, because this permits the officer to spend half his time in each specialty. A specialty is considered over or underaligned when the utilization rate falls below 33 percent or rises above 67 percent. At the rank of lieutenant colonel, SC 41 is currently overaligned while SCs 21, 22, 25, 31, 74, 92, and 95 are underaligned.

An officer now serving in an SC 11 position normally will be projected to serve in his additional specialty when he completes his current assignment. But there are other high priority branch immaterial positions that also may be filled by Infantry officers.

Among these other positions for lieutenant colonels are District Recruiting Commands and Profes-

sors of Military Science in the ROTC program. District recruiting commands across the country are programmed to be filled by Infantry officers during calendar year 1983. Officers selected for these two-year assignments must have outstanding files and recent troop-related assignments. These command positions are nominative and require nominees to be interviewed and accepted by the U.S. Army Recruiting Command.

During 1983 and 1984, PMS positions should be available for Infantry officers. A normal tour of duty for a PMS is three years. Requirements for PMSs include an advanced degree and graduation from the Command and General Staff College or its equivalent. Further, for positions authorized at the rank of lieutenant colonel, the nominee cannot be in the primary zone of consideration for promotion to colonel before reporting for duty. PMS nominees must be accepted by the schools to which they are nominated.

Because of the time involved in the nominative process, officers who are interested in volunteering for DRC positions during 1983 should contact their assignment officers as soon as possible. Officers who are interested in PMS positions should contact Infantry Branch about 12 months in advance of their date of availability.

Officers should submit preference statements that reflect their desires for future assignments. These statements play an important part in the assignment process. Officers should also note that CONUS assignments are normally made five or six months in advance and overseas assignments, eight or nine months. Phone numbers should be included with all preference statements.

PROFESSIONAL DEVELOPMENT FOR MAJORS

The professional development objectives for a major in SC 11 are to continue his utilization in his Infantry specialty while emphasizing his development in his additional specialty and having him complete the Command and General Staff College course or its equivalent. If an officer is not selected for the resident CGSC course, he is encouraged to enroll in the nonresident CGSC course before his 13th year of commissioned service.

Assignment opportunities for majors include:

- Battalion, brigade, or division staff officer.
- Corps or higher staff officer.
- MAAG or mission duty.
- Recruiting.
- USMA, ROTC, or service school instructor.
- ARMR advisor.
- Inspector General.

Although a popular notion is that an assignment in SC 11 should be with TOE units, this is not supported by either OPMS or by reality. DA selection boards are instructed not to

allow specific types of assignments to determine an officer's selection. An officer is selected because he does his assigned job well, not because of the type of job to which he is assigned.

Because there are not enough majors to fill every TOE and TDA authorized position, priorities have been established. Majors will be advisors in ARMRs, inspectors general, instructors, and recruiting district officers. Further, many will serve with training battalions, brigades, and groups. A tally of troop positions, both TOE and TDA, shows that most majors will not enjoy consecutive assignments. For these reasons, for a major to cling to an expectation of consecutive TOE troop assignments will lead to almost certain disappointment.

Assignment priority has been given to the positions that recruit, maintain, and train the force — positions that traditionally are not high on most preference lists. Whether an officer views an assignment to a position such as branch advisor in an ARMR as paying his dues or broadening his base of experience, the Infantry Branch will continue to support the program. Such assign-

ments will be filled by those who are qualified to perform them on an equitable basis. There is no policy — official or unofficial — that tracks an officer as an "operator" with the operational forces, as a "trainer" with the training base, or as a "generalist" in other than troop duties. Anyone who has not served in this kind of position may be assigned to an ARMR, an ROTC detachment, or a recruiting district.

The hallmark of the Infantryman always has been and continues to be a dedication to soldiers, a healthy desire for increased responsibility, and a strong preference for duty with soldiers. But a necessary part of professional maturity must be the realization that the "needs of the service" increasingly will dictate that an officer must serve in positions away from the troops. Only 20 to 30 percent of Infantry majors will serve with troops (brigade level or below, TOE or TDA) during their five years at that rank. Personal preferences and professional goals that ignore this fact cannot be satisfied.

ADDITIONAL SPECIALTIES

Relatively few of the Infantry majors placed on PCS orders each year go directly to SC 11 assignments in a troop environment — to installations where there are TOE or TDA battalions. Most of the Infantry majors who eventually get to troop assignments are first sent to the installations in their additional specialties.

Some additional specialties are not routinely found on troop installations. A survey of division authorizations for the rank of major shows that the dozen best additional specialties for being selected for a troop environment (from best to worst) are SC 92, 95, 41, 46, 75, 91, 71, 74, 45, 35, 25, and 54. Officers who carry 21, 48, 49, 51, 53, or 97 as additional specialties will have a particularly difficult time getting to a troop environment. Infantry Branch does give those officers some priority on the

INFANTRY BRANCH POINTS OF CONTACT		
DESIC	NAME	PHONE AUTOVON 221 Commercial 325
LTC SC 11 Command	MAJ Young	782/0318
LTC SC 48	MAJ Gibson	0317/0318
LTC SC 48	LTC Devine	9622/9623
LTC Other Specialties	LTC Held	7823/0209
MAJ SC 11 (ROTC)	MAJ Thompson	0318/7823
MAJ SC 69	MAJ Brown	0317/0318
MAJ SC 48	MAJ Gfeller	9622/9623
MAJ Other Specialties	MAJ Strube	0318/7823
CPT SC 11 Overseas/IOAC	CPT Dezzutti	0207/0317
CPT SC 11 CONUS		
Nominative	CPT Smith	0207/0208
CPT SC 54	MAJ Brown	0317/0318
CPT SC 48	MAJ Gfeller	9622/9623
CPT Other Specialties	CPT Cummins	0207/0208
LT SC 11 Overseas/CONUS	CPT Thompson	0207/0208
LT Accessions	Mrs. Martin	0208/0209
SC 11, 54 Program Manager	MAJ Neary	0432
Infantry Branch Representative, USAIS, Ft. Benning, GA	CPT Freeland	AUTOVON 835- Commercial 545- 3611/4381

few controlled specialty 11 requisitions that have been validated for troop installations.

Infantry Branch also attempts to give each officer an opportunity to serve overseas. Overseas equity is not the driving force in overseas assignments. Equity can be maintained only within a specialty, because some specialties have fewer overseas opportunities than others. For example, 31 percent of the assignments for majors in SC 11 are overseas, while SC 91 has an overseas utilization rate of 32 percent. Only 3 percent of the SC 49 majors are overseas. An 11/91 major will obviously have more overseas

opportunities than an 11/49 major will have

CGSC

Selection for the Command and General Staff College resident course has undergone another transition. Current selection eligibility is determined from the time an officer becomes a promotable captain through his thirteenth year of service. There is no longer a screening board or an alternate list from which an officer can be activated.

Completion of CGSC by either

resident or nonresident instruction is critical to selection for promotion to lieutenant colonel. An Infantry officer in his twelfth year of commissioned service who has not been selected for the resident course should request an application enrollment packet for the nonresident course from the Commandant, USACGSC, ATTN: ATZL-SWE-TM, Fort Leavenworth, Kansas 66027. (Officers are eligible for nonresident enrollment after their eighth year of commissioned service. Completion of the nonresident course does not preclude selection for the resident course.)

RESERVE COMPONENT NOTES

FROM RCPAC

There are many challenging opportunities for an officer to actively participate in the Army Reserve, and these opportunities are as flexible as an officer wants to make them. His

contact at the U.S. Army Reserve Components Personnel and Administration Center (RCPAC) at St. Louis, is his personnel management officer.

For example, his PMO can help him obtain an assignment to a reserve unit in his locale. Or, if such an

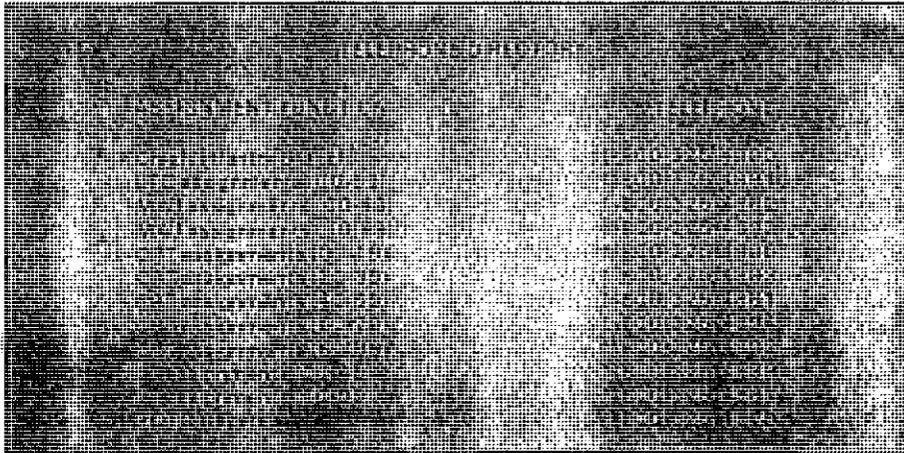
assignment is not possible, the PMO can explain his options to him and arrange appropriate mobilization training that will keep him active and qualified as a reserve officer.

The PMOs manage officers according to their ranks and the last two digits of their Social Security numbers, as shown on the accompanying chart. All officers are urged to keep in touch with their PMOs.

All correspondence should be addressed to:

Commander
RCPAC
ATTN: AGUZ-OPC-IN
9700 Page Blvd.
St. Louis, MO 63132

The AUTOVON telephone numbers are 693-7849/7817/7813/7814/7898.



BOOK REVIEWS



In our May-June 1983 book review section (page 47), we wrote that Simon Dunstan's *VIETNAM TRACKS* was published by Osprey Publishing Limited, a British publishing house. What we did not say, and should have, was that the Presidio Press (31 Pamaron Way, Novato, California 94947) did the American version of the book and that the Osprey version is not for sale in the United States. The Presidio Press is the sole source of the book in this country. We regret that we did not make this point clear in our May-June 1983 issue.

More good books continue to come our way. Here are some that we want you to know about:

• **ALAN BROOKE.** By David Fraser (Atheneum, 1982. 604 Pages. \$19.95). The author, a distinguished retired senior British Army officer, tries hard to prove that Britain's World War II military leader was "simply the outstanding soldier of his generation, a superb professional and the prime military architect of Britain's successes in the Second World War."

He also tries to show that the real Alan Brooke did not emerge from the pages of his published diaries, which appeared in the 1950s as *THE TURN OF THE TIDE* and *TRIUMPH IN THE WEST*.

Fraser does not wholly succeed. Alan Brooke did have his problems with his country's civilian leader, Winston Churchill, who was, undoubtedly, a most difficult man to work for — and with. He did carry a heavy burden for better than five years and probably carried it as well as any other British Army officer of the time could have.

But he was hardly "the outstanding soldier of his generation." For example, he did not get along very well with his American allies and dreaded meeting with them at the numerous war-

time conferences that were conducted. (He held Dwight Eisenhower in particularly low esteem.)

He wanted to command *OVERLORD* in June 1944, but had turned down Churchill's offer in 1942 to command the British Eighth Army, pleading that he knew nothing about the desert and that he was more important to England's cause in London. He never understood the war in the Pacific and apparently could not fathom the reasons why the Americans had such great interest in that theater of operations. He did believe in defeating Germany first, but delayed a cross-Channel operation as long as he could and may well have tried to delay it even longer if the Americans had been more agreeable.

Brooke was a talented staff officer. He was not, as Fraser puts it, "a 'regimental soldier,' a soldiers' general." Outstanding soldiers of any generation must be, first of all, solid "regimental soldiers."

Fraser has written an interesting book. He does not agree with all of Brooke's decisions and personal opinions regarding individuals. But he tries too hard — by saying the same things over and over — to convince his readers that Alan Brooke, indeed, was "simply the outstanding soldier of his generation."

BILL MAULDIN'S ARMY: BILL MAULDIN'S GREATEST WORLD WAR II CARTOONS. A Reprint (Presidio Press, 1983. 384 Pages. \$12.95, Softbound). Originally printed in 1949, this collection of Bill Mauldin's cartoons wears its age well. It probably has far more meaning for

those who served in Europe and North Africa during World War II, than for anyone else.

But for any person who has the slightest interest in what the United States Infantryman went through during his training in the States and then during combat in Sicily, Italy, and France during World War II, there is no better single source of information. This is the way it was. Somebody else can put in the words.

• **THE ART OF WAR.** By Sun Tzu. Edited and with a Foreword by James Clavell (Delacorte Press, 1983. \$8.95). If you have never read Sun Tzu's precepts for success in war and politics, you should make it a point to do so now. They are presented clearly by a master writer and published in a clear and concise format.

James Clavell used a 1910 translation as the basis for this book, although there were others he could have used. His claims for Sun Tzu's sayings are not shared by all students of the art of war. But he is right when he says that today's military professional can benefit from reading and understanding Sun Tzu.

• **HISTORY OF THE ART OF WAR WITHIN THE FRAMEWORK OF POLITICAL HISTORY: THE MIDDLE AGES.** By Hans Delbruck. Translated from the German by Walter J. Renfroe, Jr. (Greenwood Press, 1982. 711 Pages. \$55.00). This is the third of Hans Delbruck's four volumes to be published in English. The first two — *ANTIQUITY* and *THE GERMANS* — appeared in 1975 and 1980, respectively.

This volume begins with Charlemagne's reign and ends in the early 16th century. Along the way, Delbruck discusses such subjects as Charlemagne's subjugation of the Saxons, knighthood, the Norman military organization in England, the Swiss

NOTE TO READERS: All of the books mentioned in this review section may be purchased directly from the publisher or from your nearest book dealer. We will furnish a publisher's address on request.

wars, and numerous campaigns, battles, and engagements.

Delbruck's history has been recognized for a long time as a major work in the field of military history. All military professionals should become acquainted with it.

• **ATLAS OF THE ARAB WORLD.** Compiled by Michael Dempsey (Facts on File, 1983. 126 Pages). Although a series of excellent maps dominates this book, it also includes a concise gazetteer that gives numerous facts and figures for each country in the Arab world, from Algeria to South Yemen, and a series of notes that expands on the visual information shown on each of the 38 maps. This is a fine and useful reference book.

• **AT WAR IN KOREA.** By George Forty (Hippocrene Books, 1982. 160 Pages. \$25.00). George Forty served in the British Commonwealth contingent in Korea and was wounded there. In this book he presents a good, concise account of the Korean War from its beginning in June 1950 to the signing of the armistice 36 months later. Numerous photographs nicely complement the narrative, which stresses the Commonwealth contribution, but does not neglect the contributions made by the United States and by the other United Nations countries.

Here are a number of other books you should know about:

MILITARY LAW. Third Edition. By Edward Byrne (U.S. Naval Institute Press, 1982. 790 Pages. \$21.95). Reviewed by Captain John T. Phelps II, Judge Advocate General Corps.

One of the most misunderstood and maligned segments of the law is the military justice system. To many laymen and soldiers, the term "military law" conjures up visions of drum-head justice, broken sabers, and arbitrary punishments. In fact, though, the Uniform Code of Military Justice (UCMJ) is one of the fairest systems of law in this country. In many instances, the military defendant enjoys far more substantive and procedural rights than his civilian counterpart. And while it serves the needs of discipline, it also serves the ends of justice.

This book provides a well organized, interesting, and well written overview of the military legal system. Each chapter of the book is followed by discussion cases from the military appeals courts and a self-quiz. The questions are practical ones and are geared toward situations that commanders frequently encounter.

For both laymen and military commanders, the most misunderstood part of the military justice system is the court-martial. The procedural and substantive aspects of a court-martial are a mystery and often a source of

frustration for the commander and the soldier who must deal with the legal system in the military services. This book sheds some light on the problems with its extensive discussion of trial procedure, rules of evidence, and the roles played by the trial and defense counsels, the military judge, and the members of the court.

This book is highly recommended for legal clerks, military policemen, commanders, and all others interested in the military legal system. It dispels many of the myths that surround the system and serves as an informative guide to military law.

But the reader should remember that the law is constantly changing, and the knowledge gained from this book should be used only in conjunction with accurate and up-to-date advice from the nearest military legal office.

ATTACK AND DIE: CIVIL WAR MILITARY TACTICS AND THE SOUTHERN HERITAGE. By Grady McWhiney and Perry Jamieson (University of Alabama Press, 1982. 201 Pages. \$17.95). Reviewed by Captain Don Rightmyer, United States Air Force.

Untold numbers of books have been written about the Civil War. But one key aspect that has not been addressed thus far concerns the tactics that were

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used by both sides to fight their battles. This book fills that gap in a timely and excellent fashion.

It begins with a solid chapter that analyzes the losses the Northern and Southern armies suffered, the number of generals killed, and the percentages of battles in which each army did the attacking. The authors then explain the origin of the tactics that were used and focus on the tactics used by the Southern side. The last two chapters attempt to link the fighting spirit of the leaders of the Southern armies with that of their Celtic ancestors in Europe several centuries earlier.

The book is a worthwhile addition to the literature of the Civil War and the way in which it was fought. It also serves to bring many battle narratives into much clearer focus.

THE BRITISH SOLDIER IN AMERICA: A SOCIAL HISTORY OF MILITARY LIFE IN THE REVOLUTIONARY WAR. By Sylvia R. Frey (University of Texas Press, 1981. 211 Pages). Reviewed by Captain Michael E. Long, United States Army.

Historians have long considered the individuals who served in the Revolutionary War armies nothing but criminals and social misfits. The author, who now serves in the history department of Tulane University, does not necessarily agree, particularly in regard to the British Army.

She presents an excellent account of soldiering as an occupation during the Revolutionary War and uses the northern campaign that ended at Saratoga and the southern campaign that ended later at Yorktown to emphasize the physical strains active campaigning imposed on the soldiers in the British ranks. They suffered a high rate of infectious diseases, which were exacerbated by the almost total lack of bathing, laundry, cooking, and dining facilities.

Of particular interest is the role played by blacks and by camp followers. The author feels that both groups were a definite part of the British Army's operational apparatus in

America and that both contributed in many and diverse ways to that army's accomplishments.

This book is an excellent example of historical research at its best and is well worth the military professional's time and study. He will also benefit from the detailed bibliographic reference section.

MISTER KIPLING'S ARMY. By Byron Farwell (Norton, 1981. 244 Pages. \$13.50). Reviewed by Captain Harold E. Raugh, Jr., United States Army.

In this book, Byron Farwell, the author of several previous books on the British Army, has put together the results of more than 15 years of extensive research on the British Army as it was during the reign of Queen Victoria. It is a compact volume, but in it Farwell explains in great detail the customs, traditions, and eccentricities of Britain's pre-World War I army. He describes the unique place the regiment held in the army and each soldier's undaunted loyalty to that unit.

The major drawbacks to the book are its lack of a bibliography and the absence of footnotes. Both would have been of tremendous help to the serious student of Victorian military history.

Overall, though, this is an outstanding and highly readable book. It cannot be recommended too highly, for the military historian and for the general reader.

HOME BEFORE MORNING: THE STORY OF AN ARMY NURSE IN VIETNAM. By Lynda Van Devanter with Christopher Morgan (Beaufort Books, 1983. 320 Pages. \$16.95). Reviewed by Jeanette R. Dunn, Spartanburg, South Carolina.

Although numerous first-person accounts detail the experiences of combat soldiers, prisoners of war, Government officials, and members of the news media, the significant role played by Army nurses in Vietnam has been overlooked. Lynda Van Devanter describes the experiences of these

important female Vietnam veterans.

A patriotic and rather sheltered young woman, Van Devanter went to Vietnam to serve her country. Assigned to the 71st Evacuation Hospital in Pleiku, she quickly learned the grim reality of war as dedicated doctors and nurses struggled to take care of a seemingly endless stream of casualties while battling fatigue and ignoring personal danger.

Unfortunately, Van Devanter's war did not end when she left Vietnam. Like many other Vietnam veterans, she suffered severe readjustment problems. Her work as a hemodialysis nurse provided constant reminders of Vietnam. She became deeply depressed; flashbacks haunted her. She drank, contemplated suicide, lost her job, and went on welfare. Even in therapy, Van Devanter could not talk about her Vietnam experiences.

Following a chance meeting with the organizers of the Vietnam Veterans of America, a more stable but still troubled Van Devanter became actively involved in veterans' affairs. She returned to school to complete a degree in psychology and became an expert on policies that affected female veterans. Today, she is the national woman's director of the VVA and travels widely lecturing and conducting seminars on posttraumatic stress disorder.

Written for a popular audience, the book is easy reading and is thought-provoking. But more academic studies are needed to provide a clearer understanding of the problems all Vietnam veterans face.

DEATH OF A DIVISION. By Charles Whiting (Stein and Day, 1981. 162 Pages. \$11.95). Reviewed by Colonel Robert G. Clarke, Headquarters CINCPAC.

In early December 1944, the 106th U.S. Infantry Division was put into the line in a quiet sector of the front in the Ardennes region of Belgium. It was under the control of VII U.S. Corps.

The division had only recently arrived in Europe; it had had no

previous combat experience, it had recently received some 6,000 replacements, and, for the most part, it had untried officers in nearly every command and staff position. The division was spread thinly over an extended front in heavily wooded, difficult terrain.

At the same time, the German armies were preparing to counterattack the American forces in the Ardennes area, hoping to achieve a breakthrough that would permit them to drive to the English Channel and split the two major Allied armies. The luckless 106th Division occupied the point where the major German effort was going to be made.

The German attack went off on the morning of 16 December; by the afternoon of the same day the 106th Division had been routed, with two of its infantry regiments surrounded and cut off from the rest of the division. During the first 24 hours of the German attack, the division's high command was indecisive in its actions and orders, and was confused and stunned by the ferocity of the German effort.

Eventually, the bulk of the division was lost to the Germans, and in this book, the author, a prolific writer, offers a readable account of that loss, concentrating on the leadership — or lack of it — that was involved in the disaster. He denounced the division's commander and his staff and faults the corps commander, Major General Troy Middleton, for issuing imprecise and confusing orders. He also faults the other leaders in the division, tarring them one and all with the same brush.

Unfortunately, Whiting becomes too emotional in his denunciations and misstates several facts. Still, his is an interesting book about what can happen to an untested unit when it sees its first combat under adverse conditions. World War II buffs may want to add this book to their collections.

THE AFGHAN WARS, 1839-1919. By T.A. Heathcote (Hippocrene, 1980. 224 Pages \$20.00).

Reviewed by Mitchell R. Katzberg, Dix Hills, New York.

With the ruthless invasion of Afghanistan by the Soviet Army in December 1979, the Russians made a classic knight's move against a key pawn in the "Great Game" in Asia. What is most surprising about the move is that it has taken so long to complete.

For more than a century, the drama and tragedy of this game has been played against a backdrop of intrigue, spectacular diplomatic blundering, and epic heroism. The author, a curator at the Military Academy, Sandhurst, has written an entertaining work of history, one that focuses on the 80 years during which the British tried three times to make the medieval kingdom of Afghanistan a buffer state between the northwest frontier of India and the steadily advancing Cossack armies of the Tsars.

It is an exciting story, filled with the pomp and circumstance of famous British and Indian regiments marching to do battle with a brave, resourceful, and often savage foe. It is also a story with a larger-than-life cast of characters.

To his credit, Heathcote avoids the usual pitfalls of whitewashing Britain's motives and points out that it would be an over-simplification to say that Britain fought these three wars simply to keep the Russians out of Afghanistan. He suggests, for example, that "the First Afghan War of 1839-1842 was fought not so much to keep the Russians out as to let the British in, and to install a British puppet on the throne."

In his last chapter, Heathcote compares and contrasts the British wars with the recent Russian move into Afghanistan. And while he has repeated many familiar themes, he has written an informative account about some of the most stirring events in British imperial history, events that provide today's reader with a sound background for understanding some of the events that are now taking place in Asia.

Heathcote's narrative is nicely complemented by a fine selection of old

photographs, political cartoons, and maps. Altogether, his book is a worthwhile addition to any military professional's bookshelf.

RECENT AND RECOMMENDED

THE TUNISIAN CAMPAIGN. By Charles Messenger. Hippocrene Books, 1982. 128 Pages. \$19.95.

TRAJAN'S ARMY ON TRAJAN'S COLUMN. By Sir Ian Richardson. A Reprint, with New Illustrations. London: The British School at Rome, 1982. 82 Pages. Softbound.

ENCYCLOPEDIA OF THE MODERN BRITISH ARMY. 2d Edition. By Terry Gander. Nautical and Aviation Publishing Company of America, 1982. 280 Pages. \$29.95.

THE GOEBBELS DIARIES, 1939-1941. Translated and Edited by Fred Taylor. Putnam's, 1983. 490 Pages. \$17.95.

PRELUDE TO PEARL HARBOR. By Roy M. Stanley II. Scribner's, 1983. 213 Pages. \$24.95.

MILITARY BADGE COLLECTING. Third Edition. By John Gaylor. David and Charles, 1983. 163 Pages. \$26.50.

THE LAST BRIGHT BLADES: A STUDY OF THE CAVALRY SABER FROM 1904 TO 1934. By Joseph William Turner. The Wagapaw Press, 1982. 45 Pages. \$8.95, Softbound.

THE GREEN HOWARDS. Revised and Updated to 1982. By Geoffrey Powell. David and Charles, 1983. 150 Pages. \$18.95, Softbound.

AMBUSH. By S.L.A. Marshall. A Reprint. Battery Press, 1983. 242 Pages. \$16.95.

THE GLEAM OF BAYONETS. By James V. Murfin. A Reprint. Louisiana State University Press, 1982. 451 Pages. \$8.95, Softbound.

HIDDEN WEAPONS. By Basil Collier. Hamish Hamilton, 1982. 386 Pages. \$35.00.

"DEAR BART": WASHINGTON VIEWS OF WORLD WAR II. By Glen C.H. Perry. Greenwood Press, 1982. 341 Pages. \$29.95.

GALLIPOLI. By Alan Moorehead. A Reprint. The Nautical and Aviation Publishing Company, 1982. 384 Pages. \$16.95.

INTELLIGENCE REQUIREMENTS FOR THE 1980s: CLANDESTINE COLLECTION. Edited by Ray Godson. National Strategy Information Center, 1982. 232 Pages. \$8.50, Softbound.

ARMS CONTROL AND DISARMAMENT AGREEMENTS: TEXTS AND HISTORIES OF NEGOTIATIONS. 1982 Edition. United States Arms Control and Disarmament Agency, 1982. 290 Pages. Softbound.

ALL ASIA GUIDE. Distributed by Charles E. Tuttle Company, 1983. 683 Pages. \$9.95, Softbound.

AMERICAN DIARIES OF WORLD WAR II. Edited by Donald Vining. The Pepys Press, 1982. 430 Pages. \$14.50. Softbound.

THE 8:15 TO WAR: THE MEMOIRS OF A DESERT RAT. By Peter Roach. David and Charles, 1982. 184 Pages. \$22.50.

THE NIIHAU INCIDENT. By Allen Beekman. Heritage Press of Pacific, 1982. 128 Pages. \$9.95.

BRITAIN'S BRIGADE OF GURKHAS. By E.D. Smith. David and Charles, 1983. 178 Pages. \$18.95.

INFANTRY LETTERS



SUPPORT PLATOON LEADER

Reference the article "Support Platoon Leader," by Captains Robin P. Swan and James P. Moye (March-April 1983, p. 36), I disagree with some of the functions they attribute to the support platoon leader in the field, and presumably in combat.

I am the S-4 of the first M1 Abrams battalion in Europe, the 3d Battalion, 64th Armor. Our experience on REFORGER '82 showed us that the support platoon leader has his hands full and cannot supervise a logistical operations center and coordinate with higher headquarters while trying to support effectively.

Under Division 86, the support platoon's increase in vehicles and people will require the platoon leader's full attention and he will not have time to worry about anything but his platoon. In fact, he will probably find himself constantly on the road leading vehicles forward to logistical release points or rearward to resupply points. He will always need to know the status of his vehicle loads. His main concern, therefore, will be preventing empty support trucks.

The organizational structure of the HHC in a maneuver battalion under Division 86 gives new functions to some of the old characters in the logistical play. The HHC commander is now the most likely person to operate the field trains. Most of his company is there to begin with, while the battalion motor officer and the support platoon leader will spend less and less time near the trains. The HHC commander becomes a key in the logistical system as an important back-up to the S-4, who coordinates all logistical support from the battalion logistical operations center, an M577A1, in the combat trains. The S-4 directs the support platoon from

there and passes vital information to the HHC commander and the BMO. To facilitate support, unit trains should be used whenever the situation permits.

In our battalion the speed and increased consumption of the M1 tank have forced us to rethink our traditional support concepts. The Bradley will force the same process upon the Infantry community. Together we can learn, improve, and finally solve the remaining support puzzles that we face in this transitional decade.

GARY W. LONG
CPT, Armor

TOMORROW'S RIFLE

Mr. James E. Larsen (INFANTRY, March-April 1983, page 51) brought up an important point when he reminded INFANTRY's readers that the environment in which a rifle will be used should help determine the way it is designed. Although my article "Tomorrow's Rifle" was aimed primarily at how a rifle should fit the soldier using it, my argument was that his rifle must be made to fit him in combat, not on a firing range or at a test facility.

Mr. Larsen is correct when he states that our next rifle needs intensive human engineering, but I disagree with him on the reason for this, and I am dissatisfied with the designs that generally result from it. A rifle's most important job is to serve the rifleman faithfully by functioning when the conditions are insuf-

ferable and the situation desperate.

I may be biased in favor of the traditional rifles, but I do not believe that the advanced ergonomic designs appearing today are really made for the hands of the men who must fight with them. A rifle cannot be selected for battle because of shotgroup size, weight savings, or cost effectiveness alone, nor can it be chosen because it represents the state of the art.

In fact, the older weapon styles are not necessarily too long or otherwise ill suited for any of the forms of fighting that soldiers must do. There is a significant difference, for example, between the way a police SWAT team works and the way an infantry squad fights. The stylish Bull Pup rifle that is handy in the former role would be a handicap in the latter.

I also disagree with Mr. Larsen's belief that an infantry rifle should be designed to facilitate marksmanship training, save money, or fit special situations. Expeditious or economical training must not become so important that it distorts our view of the real world, compromises our readiness, or mutilates our equipment. Weapons must be designed to function in combat under the worst possible conditions, not to make training easier to administer or to accomplish.

We would be better able to avoid confusing priorities like this if we remembered how military decisions are supposed to be made. In facing any given threat, strategy, resources, theater conditions and the principles of war are supposed to influence the choice of doctrine and operational techniques, which in turn should determine the weapons and tactics to be used. Only after these factors have been considered can a service figure its budget, develop equipment, and organize units and training programs.

We welcome letters to the Editor on any subject that has been treated in our magazine as well as on issues of general interest to our readers. All letters are subject to editing and possible abridgment.

This process cannot be reversed simply because it is convenient politically, financially, or bureaucratically.

To best prepare for combat, an army should be organized, administered, equipped, supplied, trained, and led as if it were at war every day. Although the military services are often accused by their critics of preparing for the last war, they are usually not even that fortunate; many of their peacetime activities have nothing to do with war at all. This is the case when weapons are designed for any purpose or reason other than fighting.

Marksmanship training must not be cut or slighted to save time or money. Whether we know it, or like it, we already have an established standard on what the rifleman is supposed to do with his weapon. His criterion performance test is his weapon qualification, and it gives us a fair idea of what we are paying and training for. If another type of target performance were established, it might be necessary for us to increase the time devoted to marksmanship training instead of decreasing it.

Transportation, too, is a poor reason to compromise the design of a rifle, and a rifle is the poorest weapon to fire from an armored fighting vehicle. We would be better served if we quit trying to let each passenger shoot ineffectually at the same time and replaced individual firing ports with a couple of flexible M249 machine gun positions on both hull sides. The infantryman's private battle hinges largely on the quality of his weapon when he is alone on the ground. This is where he expects and deserves the best rifle we can give him.

Mr. Larsen is not far off target when he calls burst control a band-aid solution to the extent that it is a simple fix, but burst control is not meant to compensate for poor weapon design or poor marksmanship training. It is merely a mechanical device that helps reduce ammunition waste that is caused by unnecessary and uncontrolled full automatic fire. A burst control mechanism does not make a soldier a better shot by keeping the

weapon pointed at the target, but it does eliminate many of the rounds that are fired harmlessly over and away from it.

Burst control also encourages the soldier to reaim his rifle for a more effective second shot if he needs it. A high cyclic rate may produce steadier



three- to five-round fire with burst control, but that is not the primary problem. Burst control allows better fire control at any cyclic rate and prevents an assault rifle from being improperly used as a 30-round shotgun.

It is important to recall, before we covet foreign rifles, that Americans like to fight differently from many of our friends and potential foes. Although we may not always succeed, we prefer to pin our enemies by opening fire as soon as possible at long range and then to destroy them with

other fires that spare our own soldiers' lives. The Soviets and their allies have no such humanitarian plans. They are going to try to get as close as they can in a hurry to any of our units that they cannot bypass. In the AirLand battle we will have to beat them a long way off, and the Infantry must do its share with accurate sustained rifle fire from the start.

I appreciate Mr. Larsen's comments and criticism. Thoughtful contributions such as his, expressed through articles and letters to INFANTRY, will improve our soldiers' capabilities and their chances in combat. To help accomplish this, we need to give our infantrymen the best rifle possible. This may be our last opportunity.

NOYES B. LIVINGSTON III
CPT, Infantry
Texas Army National Guard
Houston, Texas

SAYS IT ALL

Congratulations on the fine article "Building Morale Through PT," by Captain David H. Petraeus, in the March-April 1983 issue (page 11). It says it all on PT programs.

DONALD C. FISCHER
LTC, Ordnance Corps
Worms, Germany

TACTICS, NOT SPYING

Since the revelations of the Ultra secret, there seems to be a tendency to downplay the tactical lessons to be learned from World War II.

It is clear that Allied clandestine operations sped the favorable conclusion of hostilities, but these operations did not bring the final victory. The war was won by men who fought, men who provided materiel in abundance, men who created new technology, and by other men who employed the men, materiel, and technology on the battlefields of the world.

World War I had taught the Army the need for organizing and planning to take full advantage of America's massive industrial capacity. The interwar years had seen the establishment of the Industrial War College, which provided training to military leaders in order to change peacetime industries to wartime production. In addition, the War Plans Office had developed the Rainbow war plans to provide guidance for a multi-front war against the several combinations of probable adversaries.

Finally, the United States had produced some truly original military thinkers between the wars who had their effect during World War II. These included LeJeune (amphibious warfare) and Mitchell (airpower and strategic bombing). The United States also produced men who were masters of some new techniques of warfare: Nimitz and Halsey (naval air power); Patton (tank and mechanized combined arms warfare); MacArthur (island hopping amphibious warfare); and Taylor, Ridgway, and Gavin (airborne warfare).

Victory for the Allies came from efforts and successes in many fields. Any attempt to find easy, simplistic reasons for the victory in World War II does a disservice to those who

struggled in that conflict and also to those who can now learn from those who struggled.

JAMES W. WESTBROOKE
Major, Infantry
Charleston, South Carolina



S.L.A. MARSHALL

I am writing a master's thesis on the effect that BG S.L.A. Marshall had on U.S. Army training and doctrine, with special emphasis on the period 1946-66.

I desperately need the testimony of anyone who served during this period, including junior officers and NCOs, who felt General Marshall's impact, whether in school, through reading his books or articles, or through personal contact. Confidentiality will be honored, if desired.

Also, anyone who feels that

General Marshall's influence has been overrated may state their cases, as my hope is to be as objective as possible.

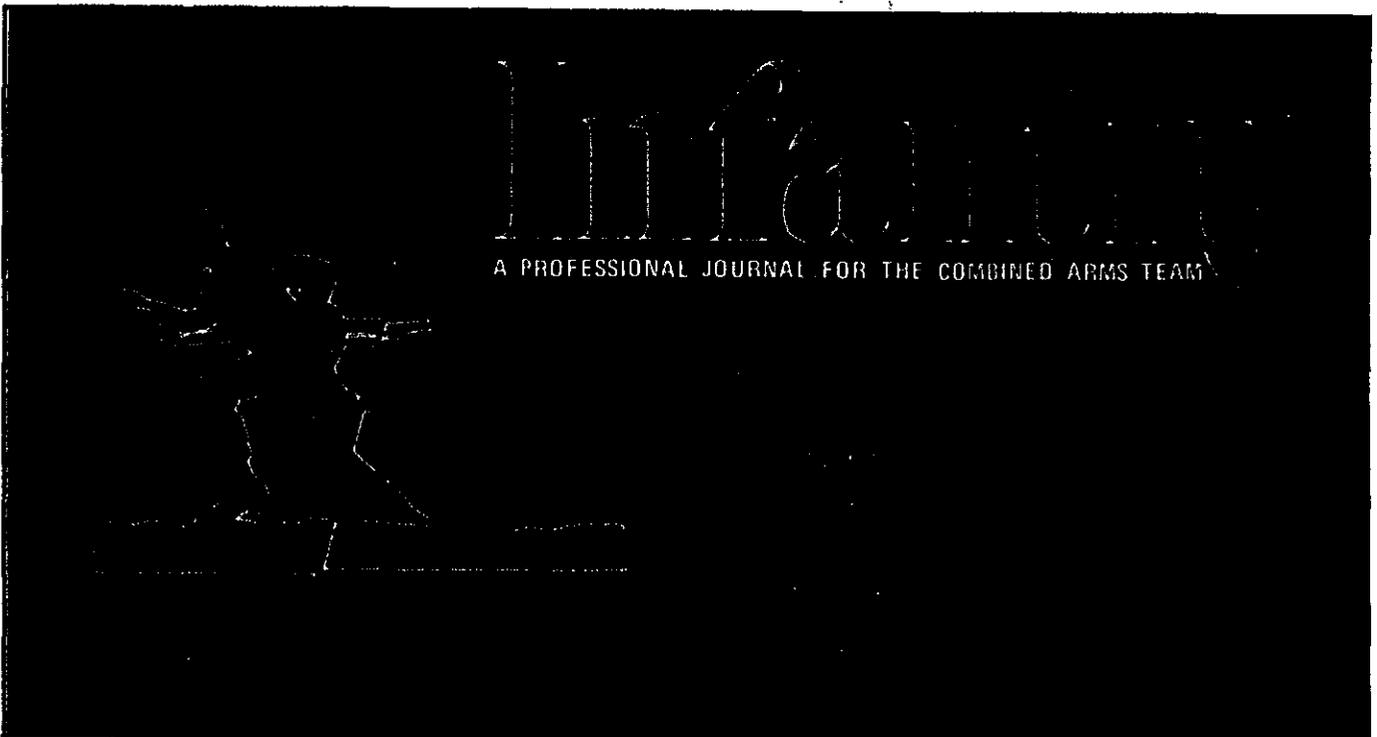
Your magazine is the best professional journal for all leaders that I have seen (and in my research I have seen many, including British and Canadian ones). Keep up the outstanding work. Though not Infantry myself, I find much to "chew on" in your magazine.

Anyone with information to offer may write to me at 2214 Engle, Dallas, Texas 75224.

F.D.G. WILLIAMS
CPT, Armor

COMPLAINT

As a subscriber I appreciate your fine magazine, but I do have one complaint: You constantly harp on the same themes: self-discipline, courage, teamwork, loyalty, honesty. Haven't you heard that these values are outdated? When I mention these same themes to my friends at Boston University, I get stares. "You think like a white, upper class, suburban, 80-year-old man!" I am sternly told. Unfortunately, because my roots are



LETTERS

in Brooklyn, New York, and now live in urban Cambridge, they think I must be a social climber.

Seriously, therefore, I thank you for sticking to the values that keep civilization going. You are in a minority, of course. But the military has always been viewed with contempt from the masses of intellectuals buzzing around political points.

When I was in high school and the looney liberals were spitting out nonsense about "the military-industrial complex," I didn't understand why you in the military were basically silent. But I held onto my beliefs anyway. And now I think I do understand. I think it was partly because of the liberal media slant and partly, perhaps, because you were keeping with the tradition of "don't complain." (A good soldier doesn't complain, doesn't explain why he is doing what he is doing, because courage, loyalty, and duty don't need to be broken down into intellectual or philosophical defenses.)

Fortunately, I did some outside reading in high school about military affairs — about how the Roman army dug in even after the Roman society had decayed and fought the Vandals bravely under Marcus Aurelius, their commander, who pic-

tured his backbreaking life as "the spider chasing the fly." He probably thought the task was hopeless but he pushed on and did the best he could, getting no support from the civic sector, which he was sweating blood to protect.

Military affairs, perhaps the key points to history, are woefully neglected in high school and college, and it's a disgrace. I'm in the process of filling in the gaps in my reading, and your reading lists and book reviews are a great help.

Again, thanks for putting together a professional magazine in a professional format.

GARY CURTIS
Cambridge, Massachusetts

BODY ARMOR

I am compiling a book on the use of personal body armor in the 20th Century and wish to include accounts by veterans illustrating both the efficacy and the problems of wearing "flak jackets" in combat. I wish to hear from veterans of the Korean and Vietnam wars and, hopefully, of World War II as well, who served in any branch of the armed forces and

had experience in the use of body armor in action, including aviators and helicopter crews.

My address is 4 Tate Road, Sutton, Surrey SM1 2SY, England.

SIMON DUNSTAN

SYMPOSIUM

The U.S. Army Operational Test and Evaluation Agency is sponsoring the twenty-second annual Army Operations Research Symposium at Fort Lee, Virginia, on 4 and 5 October 1983.

The theme of the symposium is "Integration of Modeling and Simulation with Testing to Efficiently Resource the Acquisition Process." The papers presented will reflect thoughts on methodology, application of current or formative techniques, problem areas, and conceptual techniques to improve the acquisition process.

Anyone who would like additional information should write to Commander, U.S. Army OTEA, ATTN: CSTE-STD (AORS), 5600 Columbia Pike, Falls Church, VA 22041, or call (202) 756-2416/2446, or AUTOVON 289-2416/2446.

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From The Editor

INFANTRY ASSOCIATION NEWS

An Infantry Association council meeting was held at Fort Benning on 13 June 1983. Members present included Major General Robert L. Wetzel, President (since promoted to lieutenant general); General (Retired) William B. Rosson, Vice President; Brigadier General Kenneth C. Leuer, Vice President, Pro Tem (since promoted to major general); Colonel Ronald O. Mullenix, Deputy Assistant Commandant; and Colonel Lester E. Bennett, Advisory Council member.

Minutes of the first organizational meeting held during the Infantry Conference in December 1982 were reviewed.

Under new business, several matters were discussed and decided upon:

- Briefings on INFANTRY Magazine and the Association, which are normally presented to incoming IOBC classes, will be expanded to include incoming NCO classes.
- A civilian with an infantry background will be placed on the Advisory Council.
- The Association will first strengthen its "home office" at Fort Benning before organizing area chapters.
- The annual Association meeting normally scheduled for December will be scheduled for the spring or early summer instead. When a date is fixed, an agenda will be announced.

We welcome your comments and ideas on the issues highlighted in this report, and INFANTRY will continue to publish periodic Association updates.

MDB

OUTSIDE BACK COVER:

Members of Company C, 1st Battalion, 509th Airborne Combat Team are shown during live fire exercises at Vilseck, Germany, in 1983. (Photograph by SP4 Ken Hudson)

