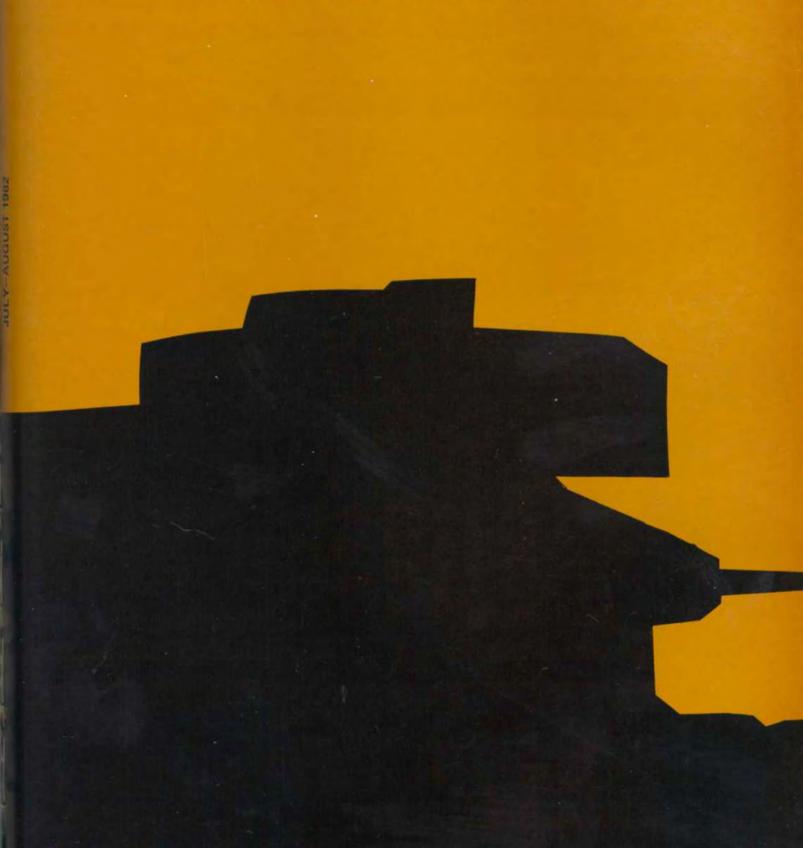
Infantry A PROFESSIONAL JOURNAL FOR THE COMBINED ARMS TEAMS



A PROFESSIONAL JOURNAL FOR THE COMBINED ARMS TEAM

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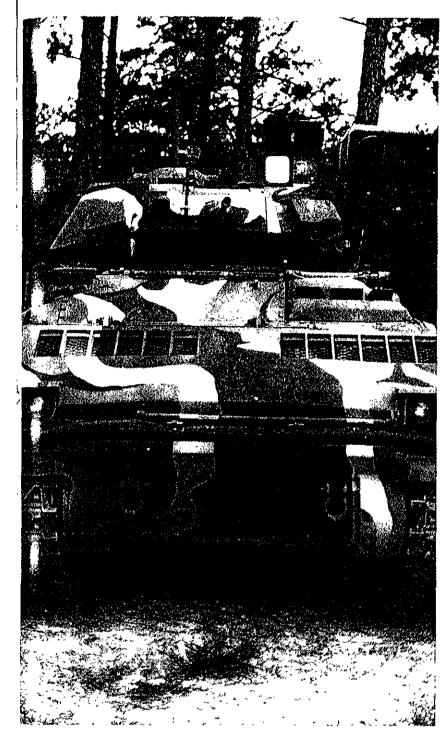
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FRONT COVER

The development of the Bradley Infantry Fighting Vehicle (BIFV) and its Introduction into the Army in early 1983 will form the centerpiece of the Infantry's contribution to AirLand battle.



INFANTRY. Published bimonthly at the United States Army Infantry School, it provides current information on infantry organization, weapons, equipment, tactics, and techniques. It also includes relevant historical articles and serves as a forum for professional ideas. Unless otherwise stated, the views herein are those of the authors and not necessarily those of the Department of Defense or any element thereof. The use of funds for printing INFAN TRY was approved 22 July 1981 by Headquarters, Department of the Army. The Honorable John O. Marsh. Jr., Silverary. Official distribution, three copies to each infantry and infantry-related unit and to appropriate staff agen.

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INFANTRY ASSOCIATION

We are delighted to announce the reestablishment of the Infantry Association here at Fort Benning. Our purpose in revitalizing this organization is threefold:

First, to acknowledge and recognize the camaraderie of the Infantry branch and our profession of arms.

Second, to provide accurate and current information concerning professional developments, tactics, and doctrine to Infantrymen around the world through meaningful dialogue.

Finally, to establish a communications net that draws upon the expertise of Active duty, U.S. Army Reserve, National Guard, and retired personnel who share a mutual interest in maintaining the highest caliber of Infantrymen for the U.S. Army.

Initially, charter members of the Infantry Association will be those who are presently paid subscribers to INFANTRY magazine. No other fees or dues are required for membership other than the normal subscription price

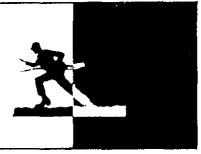
of the magazine.

Present subscribers are well aware of the benefits they now receive from INFANTRY. An annual index of articles by author, title, and subject is available free of charge and is invaluable in doing research for articles and staff papers. Book reviews of historical as well as contemporary works are the ideal way for a professional to keep his own personal library current. Finally, the magazine offers a forum for the exchange of ideas on doctrin, tactics, training, and many other topics for the Infantryman.

It is our firm purpose to hold the Infantry banner high and to reinforce the vital role it has always played within our Army. Plan to join our ranks as a member of the Infantry Association. Our branch is the keystone of the combined arms team.

Practice Combined Arms.

INFANTRY NEWS



THE FIELDING OF THE new Bradley Fighting Vehicle will begin with the issue of vehicles to the 2d Armored Division at Ford Hood early next year. The units that receive the Bradley will then undergo New Equipment Training (NET) that will be conducted by NET teams now being organized and trained at Forts Benning and Knox.

The NET teams have a two-fold mission: to provide individual training through Skill Level 4 for all MOSs that require transition training, and to provide collective training for crews, squads, and platoons. The battalions that will receive this NET training will be organized under the "J" series or Division 86 TOE before the training begins.

The NET teams will train all operator (MOS 11B and 19D) and maintenance (MOS 63T and 45T) personnel. The maintenance personnel will be trained before the operators so that the units can have a portion of their maintenance personnel trained, and available to conduct maintenance on the vehicles during the period when the operators are being trained.

The training cycle for maintenance, supervision will be 8 weeks, while the organizational mechanics course will run for 3 weeks. The operator training period will consist of an 8-week training cycle for the mechanized infantry companies and a 6-week cycle for the scout platoons and cavalry toops. The training time needed for each mechanized battalion will be about 11 weeks.

A NET team for operator training has five elements: one is assigned to each rifle company and one is responsible for training the scout platoon and the headquarters personnel. The NET team will use a squad trainer concept in which a NET trainer is assigned to each vehicle at the start of

the training cycle and will remain, with that squad or crew throughout.

All NET training for battalions in the United States will be conducted on-site at the various U.S. installations. When the NET training for a unit has been completed, all 11B personnel who have successfully completed the training will be reclassified 11M, BIFV Infantryman.

After all units of the 2d Armored Division have been trained, the NET teams will move to another CONUS installation.

THE ARMY RECENTLY AN-NOUNCED the award of a contract that will seek full-scale engineering development adapting the TOW-2 to the Bradley Fighting Vehicle System.

TOW-2 is a major improvement over the Army's basic TOW; it will be able to counter more sophisticated enemy armor with its new six-inch warhead, new flight motor, and improved guidance system.

The Army's Missile Command (MICOM) also has the Improved TOW program under way. The I-TOW features a redesigned five-inch warhead that will penetrate heavier armor than the basic TOW will.

Both programs use the existing TOW equipment to the fullest extent possible.

THE INFANTRY SCHOOL is making final preparations to field test its newly developed version of the Military Qualification Standards II (MQS II) manual for infantry lieutenants

The MQS concept developed from the Army's need to tell each of its officers what he needs to know to reach the expected performance levels, and it is intended to provide a means by which each officer can meet those prescribed standards. Because the standards will change as an officer gains experience, the MQS program has been divided into three distinct phases: MQS I addresses the precommissioning years; MQS II addresses an officer's first three years of Army service, normally the years he will spend as a lieutenant; and MQS III addresses the fourth through tenth years of service, generally the years he will serve as a captain.

The Infantry School conducted a major analysis and identified the tasks that are considered most important to successful job performance. Using this information, the School developed MQS manuals for training at Levels I and II. It also developed detailed teaching packages called Training Support Packages (TSPs). The TSPs are designed to help standardize training at the school level and to provide all the items that are needed to teach a particular topic lesson plans, training aids, lesson narratives, graphic aids, slides, and suggestions for practical exercises. The support packages and supporting manuals for Level I are now being field tested in all of the Army's precommissioning programs.

Another aspect of the MQS program is the MQS professional education component. The proposed MQS education requirement specifies that all officers will have a college degree by their tenth year of service with courses in each of five areas: human behavior, written communication, military history, national security policy, and management.

A third aspect of the MQS program is the professional reading program. The reading requirement will be standard for all lieutenants, regardless of specialty. It will consist of a directed

reading program of required books with a bibliography provided to encourage additional reading. The program will be organized into four subject lists: classical military literature, contemporary military literature, military ethics, and specialty or branch-oriented literature.

The professional education component will not be tested during the MQS pilot test period, and only an abbreviated version of the professional reading program will be tested.

It is planned for the MQS II manual to be fielded for testing by selected units beginning in the fall of 1982. The test period will last about one year and has been programmed to evaluate the overall effectiveness of the manual. During the test period, two methods of certifying completion of the tasks will be tested: command and self-certification.

Officers assigned to units selected to test the new MQS II program will carry an important responsibility because they will provide the test bed for what may result in dramatic changes in the Army's officer education system.

(Note prepared by Officer Design Branch, DTD, USAIS.)

THE NEW SQUAD AUTO-MATIC WEAPON SYSTEM (SAW) has been type classified by the Army and is deemed ready for production. The 5.56mm SAW will be deployed primarily in infantry fire teams in the Army and in the United States Marine Corps.

The SAW system components include the M249 5.56mm machine gun, the M855 5.56mm ball cartridge, the M856 5.56mm tracer cartridge, and the M27 5.56mm metallic belt cartridge link.

The M249 uses well-tested principles of design, combined in a conventional configuration. The conventional piston-actuated gas system allows for a choice of two power settings, which are achieved by regulating the bleeding of the gas entering the cylinder. This feature provides for a constant cyclic rate of



fire of 750 rounds per minute even under adverse firing conditions.

This 15.6-pound weapon fires from the open bolt position, which reduces the likelihood of a cook-off of rounds. Its barrel can be changed within three seconds. The M249 can be both belt-fed from a 200-round container or fed from the 30-round magazine that is used in the M16A1 rifle.

The M855/856 cartridges used in the SAW meet the requirements of the NATO 5.56mm Second Caliber Standardization Agreement (STANAG 4172). The ball cartridge is similar in configuration to that of the M193, which is used in the M16Al rifle, but it offers significant improvements in extended range effectiveness. Likewise, the tracer car-

tridge uses the same exterior cartridge configuration as the Army's current standard M196 tracer cartridge, but extends the visibility of the round during the day as much as 50 percent.

A blank firing attachment will be developed for training and for integration with MILES. Newly designed load-carrying pouches also have been extensively tested, and technical data packages will be developed to support their type classification and procurement. These pouches, which will fit on the standard load-carrying belt now in use, will let the gunner carry 600 rounds of ammunition. A weapon storage rack is also being developed so that the SAW weapons can be properly secured.

The current five-year procurement plan calls for the purchase of about

26 000 SAW weapons for the Army and another 9,000 for the Marine Corps. More SAWs will probably be acquired for non-infantry and joint services units.

THE ARMY'S PARACHUTE TEAM, the Golden Knights, will hold tryouts for the 1983 demonstration season at Fort Bragg during the period 27 September to 5 November 1982.

Volunteers who would like to try out for the team must be serving on active duty as corporals, sergeants, or staff sergeants; must have at least 150 free-fall jumps; must be actively jumping a ram-air type canopy; must have at least two years remaining on their current enlistments on 1 January 1983, or must be willing to extend or reenlist; if serving overseas, must have completed five-sixths of their tour by 31 December 1982; and must not currently be on overseas orders or alerted for overseas assignment.

Qualified personnel may request tryout applications by writing or calling the Commander, U.S. Army Parachute Team, ATTN: Tryout NCOIC, PO Box 126, Fort Bragg, North Carolina 28307, AUTOVON 236-4800/4828, or commercial 919/396-4800/4828.

Those who are selected to try out for the team will be notified through command channels and will be placed on either temporary or special duty for the tryout period. If considered for final selection, the applicants will remain at Fort Bragg until about 17 December for a more complete evaluation.

THE GOLDEN KNIGHTS are also asking for applications from officers who would be interested in being assigned as the team's operations officer. The assignment will be made in either October or November of this year.

Applicants should be captains or first lieutenants, be airborne qualified, have a Class D U.S. Parachute Association License, have experience

in air operations scheduling, be eventempered, have the ability to work in harmony with a wide range of civilian and governmental agencies, and must be able to serve at least two years in the position if selected.

Applicants must present an outstanding personal appearance, must have a good personality, and must have the ability and desire to represent the Army to the general public.

Interested individuals are asked to submit their resumes as soon as possible, with a full length official photograph attached, to the Commander, U.S. Army Parachute Team, PO Box 126, Fort Bragg, North Carolina 28307.

EVERY THREE MONTHS for the past few years the Army Training Extension Course (TEC) has issued a complete list of all TEC lessons that have been fielded or will soon be fielded. The last issue of the Extension Training Material (ETM) TEC/SPAS. Availability List, dated 3d Quarter FY 82, has been sent to all of the 7,300 TEC account holders.

The Availability List has been replaced by the ETM catalog, identified as the 350-series of DA Pamphlets, which have been distributed to the field. For additional information about the catalog, interested personnel can write to the Commander, U.S. Army Training Support Center, ATTN: ATIC-AET-IO, Fort Eustis, Virginia 23604, or can call AUTOVON 927-3522/2240, or commercial 804/878-3522/2240.

AN INFORMATIVE NEW SERIES of TEC lessons on "European Orientation" was fielded earlier this year. It was produced especially for soldiers and their families who are scheduled for a permanent assignment in Europe. They are recommended for Active Army personnel and for members of National Guard and Army Reserve units that have Roundout missions in Europe.

The TEC tapes are identified by

consecutive numbers from 920-791-0001-F through 920-791-0012-F. Their viewing times range from 15 to 45 minutes, and it takes almost eight hours to view all twelve.

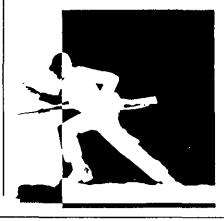
THE COMPANION FIELD JACKET for the camouflage battle dress uniform (BDU) is expected to be in the Army's supply system in March 1983. The BDU field jacket is made of the same material as the Army's present field jacket but has some of the same characteristics as the BDU, including the infrared reflective dyes and the camouflage pattern.

The present plans call for issuing one of the present field jackets and one BDU field jacket to each new recruit beginning 1 March 1983. Beginning 1 October 1983, new soldiers will be issued two BDU field jackets.

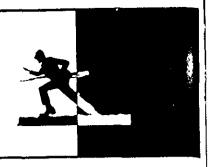
Starting 1 March 1983, Army clothing sales stores will be able to order the BDU field jacket for sale to Active Army soldiers, and for sale and issue to members of the Reserve Components.

By 1 October 1983, all Active Army soldiers will be required to have one BDU field jacket, and must have two of the jackets by October 1985. Reserve Component soldiers must have one BDU field jacket by October 1985.

The BDU field jacket does not experience the same shrinkage problems that have been associated with the BDU. In fact, laundering care for the BDU jacket is the same as for the present field jacket, except that it should not be starched.



FORUM & FEATURES



KEEP IT LIGHT

MAJOR JOHN P. GRITZ

What good is an army that can't get to a war on time, has too much equipment that needs too much fuel when it does get there, and acts more like a target than an attacker on the battlefield?

Unfortunately, that's the kind of Army we are fielding today. It consists primarily of armor and mechanized infantry units. Its light infantry divisions either have lost one brigade each or have been scheduled for complete deactivation. Our one airborne division is the best we have in terms of strategic mobility, but our planners seem to have developed the other forces as if our Canadian and Mexican borders were threatened: These units might stop a lightning armor thrust into Colorado or Texas, but they would strain our sea and air bridges to Southwest Asia or Central Europe. In the end, they probably wouldn't get there in time to win a war, much less deter one.

It's time we de-emphasized exotic and expensive tanks and infantry fighting vehicles and concentrated instead on fielding a leaner army, one composed of more deployable, flexible, efficient, and survivable light infantry units.

In quick-response situations, light infantry - even the fairly heavy units we have now - can effectively use air and all other forms of transportation as well, including trains, buses, boats, mules, and foot power, to get its troops into battle without delay. Our armor and mechanized infantry forces, on the other hand, must rely on pre-positioned stocks for their European combat power, or else be prepared for a long delay in getting their soldiers and vehicles together at ports and airheads - provided, of course, that the vehicles ever get there at all.

Light infantry can be employed in practically any environment. Bad weather and darkness are aids to the footsoldier. When his air assault contemporaries are grounded by darkness, and his mechanized friends are mired in snow or mud, he can still fight — on the plains and woods of Europe, on the deserts of the Middle East, or in jungles, cities, and mountains.

Light infantry units are less dependent on equipment and fuel than other types of units. Relying only on shoe leather to carry them, they are less hindered by the surprises of war.

Mechanized units require too many soldiers and too much equipment just to support their vehicles. Ask a mechanized infantryman where he spends most of his time, and he'll probably reply, "At the motor pool." And the same fuel problems that keep him locked in a garrison motor pool in peacetime will stop him and eventually put him on foot when he goes to war.

Light infantry has the added advantages of being more flexible and adaptable, and better able to augment its resources by living off the land and the enemy's spoils. Most important, well-trained and well-employed light infantry units can survive on the battlefield better than mechanized divisions can with all of their armored vehicles.

Shoulder-fired antiarmor and air defense weapons have completely changed the infantryman's combat power in relation to armor and air power. Since the Arab-Israeli War of 1973, for example, the volley fires of massed infantry antitank weapons have considerably reduced the advantages previously held by armor columns.

In terms of being seen, identified 18

a threat, and engaged on the battlefield, light infantry units have a definite advantage over armor and mechanized forces. They can dig in. They can hide. They can move quietly at night. In many ways, they are more mobile on foot at three miles per hour than their mechanized counterparts are in their vehicles. Foot troops make better use of the terrain, leave a smaller electronic or visual signature, are not bound to lines of communication, and are the most capable at effecting surprise.

Ironically, light infantry can be organized, equipped, and trained for a fraction of the price of mechanized forces. Discounting the cost of the soldiers' pay, food, and ammunition, the purchase price of one new Bradley fighting vehicle — about 1.5 million dollars — could provide six or seven light infantry battalions with enough money to cover their operations and maintenance for a year.

It's time, therefore, for us to shift our budget priorities and doctrine to a more formidable infantry force structure that is prepared to get to war fast and fight on our own terms.



MAJOR JOHN P. GRITZ holds a master's degree from Central Michigan University and recently completed the Marine Corps' Command and Staff College He is now assigned to the Special Operations Task Force, Europe

Selfless Leadership

LIEUTENANT COLONEL R. L. SLOANE

When I started my military career a number of years ago, one of the first things I learned was that the most important aspect of military service had as its core the old adage that the mission and the men come first. I believed it then; I believe it even more now.

Unfortunately, too many of the Army's leaders today seem to have forgotten that, although the mission must come first, it is only slightly more important than the men. These leaders seem to be willing to sacrifice their men needlessly for the mission, especially when the accomplishment of the mission is linked in their minds with their own personal advancement.

Modern technology and the various management theories that have been applied to the Army have helped engender this idea that the men are expendable. The equipment and systems that have been developed tend to promote the dehumanization of soldiers — the men have become mere commodities, a part of the equipment or the system. And because most of the management theories focus on the need for the people to support the organization in attaining a certain goal, they fail to recognize the corresponding obligations the organization has to its people.

The Army's leaders too often become so enmeshed in the details, in the micro-management of their own actions, that they lose sight of their overriding goal. Slowly, then, over a period of time, it becomes easy for them to compromise their inherent personal values for those of "the system." Their programs and budgets then become more important than their people, and accomplishment begins to outweigh human concerns. This is what convinces many outsiders that the Army's leaders do not really care for their soldiers, that they

lack the necessary moral courage to stand up for their men, and that they have mortgaged their integrity by deluding themselves as to their real goals.

It is quite evident then that one of the Army's major internal problems is the increasing selfishness of its leaders. But this is only a symptom; what we need to do is look at some of the underlying causes.

First, leaders need to be able to assess where they stand and what they can expect their future to be, but the individual leader finds it difficult to get the information he needs to make this assessment. Some of the recent changes the Army has made in performance assessment and career progression may prove beneficial in the long run, but they are not enough in themselves to bring about changes in the basic motivations of its leaders.

The Army also needs a far less narrow and less subjective system of

assessing performance and potential, and it must couple such a system with a revised career program. For example, individuals who reach high levels of competence before their retirement dates should be retained by the Army and used in positions where their experience and training can be put to good use. Perhaps they could be given special pay incentives to keep them productive and useful members of the military establishment.

Another cause of the rise in personal selfishness is the perception of many leaders that their standard of living is being lowered and that their benefits are being steadily eroded. Many of them also feel that the Army is not devoting enough of its resources to training and maintenance despite a seemingly increasing enemy threat. As a result, they question whether the country and its political leaders truly want and are willing to support an Army that is large enough for today's troubled world. This, in turn, causes them to sense that their superiors are interested in things other than people and to doubt that it is worth while for them to struggle to maintain high levels of unit readiness at great personal effort. Eventually, they become more concerned with their own wellbeing and security than with service to their country and duty to their mission.

Another problem is that, even with the eroding of benefits, many people are entering the service today for purely economic reasons rather than out of a sense of service or duty. In fact, with such motivations implicit in its recruiting and retention programs, the Army cannot help attracting the self-interested and self-concerned, thereby insuring ever-increasing numbers of selfish leaders for the future.

General of the Army Omar N. Bradley once said, "A man is not a leader until his appointment has been ratified by his men." While the Army's primary purpose may well be to equip, train, and employ its units anywhere in the world, if its leaders do not show a sincere concern for their men and establish a strong bond with them, their leadership will never be ratified. This does not mean that the leaders must pamper their men or relax their standards of discipline. It does mean that they must place the interests of their men first. If they do

this, the men will then put their mission above all else, and the mission will be accomplished.

The Army must come to grips with the fact that many of its leaders have deviated from its inherent concern for its men and must help these leaders get back on the right track. Only by providing them with the means through which they can better see themselves and look toward a secure future, can the Army hope to motivate them to look outward, away from themselves and toward their men.

If the Army's leaders can find it within themselves to be truly concerned for their soldiers' lives and welfare, then nothing will be able to stop the Army from carrying out its mission to defend this great country.



LIEUTENANT COLONEL R.L. SLOANE, a 1963 graduate of the U.S. Military Academy, has completed the Command and General Staff College and the Army War College. He is now a regimental tactical officer at the U.S. Military Academy

The Balance

DANDRIDGE M. MALONE

In the whole process of developing leaders over a period of time, there will be one general malfunction. The leadership of the unit will continue to operate, even with this malfunction, but it won't run smoothly on all cylinders. This malfunction has to do with balancing.

Two big factors underlie all we know about Army leadership: the accomplishment of the mission, and the welfare of the men. Mission and men.

Leaders are always working with these two basic factors. Whenever and wherever possible, a leader tries to balance them so that both the needs of the mission and the needs of the men are met. But there are times — sometimes in peace, often in war — where the needs of both cannot be met. The balance cannot be kept. A leader must choose one over the other. In these few situations, and the leader must make them few, the misson must come first.

There are those few times when our Army will not, cannot, and should not "be fair." The whole meaning of Army leadership rests on this law: the mission must come first. So does the meaning of "soldier," and "service," and "duty."

In the balancing business the mission side of the scale requires, to put it simply, knowing your job in excruciating detail. It requires technical competence. Without it, an Army leader can never lead for long. Just talk won't work. The troops will know.

The men side of the scale requires the leader to know his soldiers. He must know what's inside of them, what makes them do things or not do things, what turns them on or off, what they can do and what they will do under stress, and when they're afraid, or tired, or cold, or lonely. These are the things he needs to know about his soldiers. They're what tells him how a soldier measures up on the "able and willing" gauge.

You, as a leader, must try to balance between these two requirements - mission needs and men needs. And it is precisely here, in this "balancing" business, where leaders most frequently fail. It is here where young sergeants and young lieutenants have their greatest difficulties and where even old leaders, despite their wisdom, sometimes lose sight of the ultimate purpose of leadership. The problem arises because of the relationship that exists between the soldiers' happiness and satisfaction on the one hand and their productivity and mission accomplishment on the other.

Common sense might tell you that happy, satisfied soldiers will get the jop done better. From this, a leader, especially if he's a new sergeant or new lieutenant, might well assume that if he can somehow keep his soldiers happy and satisfied, then they will be more productive, more likely to get the mission accomplished. But the strange chemistry of leadership just doesn't work this way.

A thousand scientific studies of leadership, and a thousand lessons of



leadership experience, both prove that what seems to be a natural, common-sense assumption is precisely wrong!

In simple terms, mission accomplishment builds morale and esprit far more often than the other way around. When soldiers and units do the things that soldiers and units are supposed to do, that's when morale and esprit are highest. That's why the one best way to build will is to build skill. That's why those new basic training graduates are so fired up about soldiering and about the Army. That's why unit esprit is at its peak when the unit has a good exercise going out in the field.

If leaders don't know both sides of this leadership scale — the needs of the mission and the needs of the men — in full detail, they'll be forever getting the scale tilted the wrong way. And when that happens, the soldiers' time, or the soldiers' spirit, or the soldiers themselves will be wasted.

There are times, in training, when you may be led astray. You may see cold, wet, muddy troops coming in from a night field exercise at 0200 and say, "Hell, let's let 'em get a hot shower and some sleep; then we'll pull maintenance when it's light enough to see." And there are times just like that in war when a bloody

and shot-up company may be stalled in its assault, for the second time, halfway up a hill. You say, "Hell, they just can't do that again. Let's dig 'em in, pound that hill with Red-Leg, and ask battalion for reinforcements." If you love your troops, in the noble way that good leaders do, both these decisions, at the time, may seem to be just common sense. But both are taking the easy way out, and both violate the ultimate purpose of Army leadership.

Now you can, and should, argue this point. But if you're talking about leadership, there's no way you can win. The purpose of leadership is to accomplish a task. And in the final analysis, when the action shifts to the battlefield for which you are now preparing, mission must come first. As you lead, and as you build leaders, this law must be, flat-out, the cornerstone of your foundation.

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

COHESION

LIEUTENANT COLONEL CLARK C. BROWN

The importance of cohesiveness in a combat unit has been recognized for a long time. Nearly 2,400 years ago the Greek general Xenophon observed that the successful unit in a conflict is the one that "goes into battle stronger in soul." To have a soul a unit has to be more than just a loose collection of soldiers who are supposed to fight together if the need arises — it has to be close. It has to have what we now call cohesion.

If we analyze the term "unit cohesion," it appears to be redundant: "To cohere" means, literally, to cling together, and the word "unit" refers to individual parts that do cling together. Many of our infantry units during World War II demonstrated a great deal of cohesion and, therefore, were able to withstand extreme hardships and to accomplish almost impossible missions. But during the years since the end of World War II, the Army's units lost that special quality of closeness, and it now has become necessary to reintroduce the idea by talking about "cohesion."

But talking about cohesion is not enough. Somehow we must analyze what it is and then look at how we should go about achieving it.

Cohesion is difficult to define in a meaningful way, because it is made up of such intangible qualities as trust, confidence, and sacrifice, which are defined in terms of feelings, needs, and values. For these reasons it may be more helpful to describe a unit in which these intangible qualities are found.

In a cohesive unit a soldier shares a feeling of belonging to a group and accepts the unit's mission as his own. Each member takes pride in his job performance and sees his efforts as contributing to the unit effort as a whole. Each member is tightly bound with the others in feelings of reciprocal trust and kinship. Each soldier believes that his leaders really care about him. Each is proud of his membership in the unit, because he has earned it through difficult basic and unit training.

IN BATTLE

In battle this feeling of cohesiveness compels the soldier to fulfill his obligations to his comrades even at great risk to himself. No matter how long a battle lasts or how much destruction has occurred, the surviving soldiers will try to get the job done the best way they can and with whatever means they can find.

A soldier in such a unit will endure hardships and jeopardize his own safety for the welfare of his comrades, and he will do these things because he believes they would do the same for him. A Dragon gunner, for example, will sight his weapon for several seconds, exposed and under fire, because he is confident that his buddies will protect him.

Victory, then, is decided by soldiers who have the spirit and will — the soul — to go on despite the odds, and Army leaders must strive to develop

that degree of cohesion in their units. To do this, they must focus on major improvements in the three most important areas: mission training, standards of performance, and leadership.

Too often, though, soldiers have difficulty seeing the importance of their unit's mission and, consequently, of their own jobs in the unit, because they are not given the resources they need. "Doing more with less" has become a too-common phrase in the Army. Resource shortages bring about shortages in time, and time shortages cause poor planning and last-minute changes, which further deplete resources, and the cycle starts over again.

Combat realism in training is often subordinated to the practical realities of the current peacetime environment, such as the high costs of maneuver damage, shortages in gasoline, and the expense of high technology, ordnance, and supplies. But when a soldier turns to his leader for reassurance, he often finds a person who cannot offer an explanation for the way things are and one who probably even has some doubts of his own. But regardless of how logical and well-meaning the explanations may be for the unit's shortage, soldiers will evaluate their role and their unit's mission on the basis of their own perceptions and no one else's.

Even if a soldier can understand that training restrictions are unavoidable results of pressures from the outsi, e, he may not be able to understand his leader's lack of emphasis on solving such problems as camouflage and dispersion and chemical warfare training. He may feel deceived and cheated and may begin to doubt that his leader really cares about him. The soldier knows that these unsolved problems could quickly get him killed in combat; he is not a gullible fool.

This problem is complex, but it can be solved. First, a new method of operating within the Army is needed, especially for dealing with unit readiness. The Army should focus more on the squad and the platoon, considering everything from recruiting to weapon system procurement. A small-unit leader also needs more support from his chain of command if he is expected to conduct training, and he must be made to feel free to use his imagination in carrying out small-unit operations and adventure training.

Once its focus has been reoriented, the Army can start applying methods for developing cohesion — personnel stability, increased operating and training funds, improved equipment, and tougher training. The recent idea or keeping companies together for a three-year period is a good beginning, because it will emphasize personnel stability at company level and below and also because this effort may provide us with some fresh ideas on how to improve the small-unit cohesion we already have.

Another method of achieving stability may be to list all battalion-sized units by priority and to assign scarce resources only to high-priority units that can be kept at a level of readiness that is high enough to allow soldiers to practice their skills. Units that cannot be assigned enough resources should be deactivated or kept at cadre strength until sufficient quantities become available.

In addition, a better balance should be achieved between expenditures for operational readiness and for new equipment procurement. The resulting improvement in training would go a long way toward promoting unit cohesion. If a unit is to be cohesive, its soldiers must believe that high standards of personal performance are both necessary to accomplish the unit's mission and desirable for enhancing their unit's prestige. If they believe this, the soldiers will also believe that high standards of professional conduct are worthy of their personal sacrifices. Each person needs to feel pride in what he is and what he does, and this pride is further improved by his affiliation with a group that he considers a winning team.

Before a soldier can be proud of belonging to a unit, though, he must first feel that he has successfully negotiated a tough selection process that has done away with those who could not meet the prescribed standards. To build this individual and unit pride, the Army must start with a demanding period of basic training and then carry the same demanding standard into the rest of its operations. Basic, advanced, and unit training should become progressively tougher and more demanding on the soldier, requiring him to develop and maintain the strong personal discipline that he needs to foster pride.

Everything the soldier receives should be earned, and this should include branch insignia, medals, badges, promotions, and distinctive unit crests. As he works harder and earns more prestige, the tough regimen of unit training and testing should bring him even greater rewards: the intangible rewards of belonging, and the reciprocal affection and trust of the other members of what he perceives as the best unit in the Army. Without this pride in his unit, a soldier will not invest his efforts to set and achieve high standards of performance. Soldiers want to be a part of a winning team, and the Army can satisfy these ambitions by setting tough training and performance standards and by challenging its soldiers to meet them.

Tough unit training, then, continues to serve as a means of maintaining unit cohesion once it has been

attained. Since the goal of war can be described as causing the disintegration of an enemy's units, it is crucial that the Army train its units to resist disintegration. This will help build confidence and trust in the unit as a whole.

Once high performance standards and unit pride have been developed, one last item is required: a distinctive uniform. Proud soldiers want to be distinguishable as members of their units.

LEADERSHIP

Sound leadership is the cement that binds the other elements together to form a cohesive unit. In a cohesive unit the soldiers know that their leaders will see to their needs and share their risks. Seeing to their needs includes making sure they are well trained for their duties and are part of a unit of which they can be proud.

The crucial question of leadership is how to get good leaders and how to prepare them to lead the Army's small cohesive units. Today, there is little specific guidance available to our small-unit leaders that can help them develop unit cohesion. They are usually told to accomplish it but are seldom given the means with which to accomplish it. It is ironic that we expect the leaders with the least experience and the fewest resources to meet one of the Army's greatest leadership challenges.

To solve this problem, the Army must do two things: First, senior leaders must stop assuming that all young sergeants and lieutenants are leaders as soon as they are appointed and must do more to develop them into leaders. Second, professional development training and a leader's code of ethics should also be developed with small-unit leadership in mind. Some leadership is taught in Army schools, of course, but we must do much more. That training should teach more about group dynamics and principles of motivation, using historic examples found in such books as The Face of Battle and Men

in Arms. The objective of this leader-12 ship training should be to understand what makes people work together, what they expect of their leaders, and how leaders can create an environment that is conducive to building cohesion. We must also select the more promising leaders and make sure they are given leadership positions as early and as often as possible.

> Professional development schooling should support the professional responsibilities of the leaders and not the perception that a large number of commissioned and noncommissioned officers need college degrees. A code of ethics that outlines what is expected of leaders should be adopted as a guide.

> In the final analysis, I believe it is accurate to describe the leader that

most soldiers want as smart, flexible, caring, and brave. We should recruit and develop our leaders to match this description. Soldiers will put up with a lot of hardships if they believe that the tough "old sarge" and the smart "young commander" will take care of them and at the same time outwit and defeat an enemy.

A soldier will usually develop and emerge as a formidable warrior if he feels that he is well led, that he is valued as a respected member of a team, and that he has a vital job to

Military leaders must remember that their greatest weapon, even in this technological age, is the individual soldier. They must strive to develop and sharpen that soldier's skills. Leaders should work to

develop the American soldier's natural intellect and inventiveness. which have been labeled "Yankee mgenuity."

With good leaders and trained soldiers bound together in cohesive units, we can have renewed faith in our Army's competence to defeat all comers.



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Engineers and Infantry

COLONEL GERALD C. BROWN

In a recent issue of INFANTRY, Major John A. Bornmann, in "Ditch Diggers and Lead Slingers," concludes that engineers, to fight as infantry, must be heavily supplemented with combat systems and personnel. (See INFANTRY, November-December 1981, page 14.)

I disagree.

Certainly, when engineers must fight as infantry, the extra personnel and equipment that Bornmann recommends would help the effort. His list includes more Dragons, machineguns, TOWs, communication equipment, tanks or armored personnel carriers, artillery forward

observers, air liaison personnel, specialists in air defense, and scouts. But where is the maneuver commander supposed to get these resources to augment his engineers? Usually there are not enough of them for the units that are authorized to have them.

I believe that the engineer on the modern battlefield must be like the Minuteman of early American history. Whenever there was an Indian threat, or when the British were coming, the Minuteman would grab his musket from over the fireplace and join the fray. In short, in an emergency, the Minuteman responded as best he could with whatever he had available.

So it must be with combat engineers. Because they work on the battlefield where enemy contact is expected, they must be prepared to defend themselves at all times at their worksites, on the march, and in bivouacs. And they, too, must fight with the equipment and the supplies they have. In emergencies, when they are reorganized to fight as infantry and no extra resources are available, the engineers must still be ready to lay down their shovels, pick up their rifles, and man the ramparts. This they can do.

,ut fighting as infantry is only their secondary mission. What infantrymen really need to understand about engineers is the specific support they can provide on the battlefield in their primary role as part of the combined arms team.

Engineers bring to the battlefield a combat system that can help provide a maneuver unit with mobility, countermobility, and survivability. Only the maneuver commander can decide how to use his engineers at any given time, but to make the decision wisely he must take into consideration a number of things.

First, the commander should always include his engineers in his plans and decisions, requiring them to furnish estimates, analyses, and recommendations. And his plans for engineer operations should be developed along with his scheme of maneuver and his fire support plans, not later. The three must be coordinated, complementary, and mutually supporting.

During defensive operations, a maneuver commander's highest priority is usually countermobility, with survivability second, while in offensive operations mobility support is usually given the highest priority, followed by countermobility to foil counterattacks.

To stop or slow the enemy in the defense, engineers should be able to put in a system of obstacles and mines on any terrain that, when wellcovered by defending fires, will cost the enemy valuable time and heavy casualties to breach. The enemy may get a few limited forces through the obstacle system early by placing an assault bridge over a tank ditch, for example, or by breaching a lane through a minefield. But many of these early successes should be countered — the assault bridge knocked out or the minefield breach blocked by a disabled tank. Even if the obstacle breaches cannot be completely closed, the enemy attack will be seriously channeled, presenting a significant advantage to the defender.

The construction of obstacles and the placement of mines by engineers takes a lot of time, and maneuver commanders must provide them as much time as possible. Scatterable mines delivered by artillery or aircraft, on the other hand, can be emplaced rapidly to slow, disrupt, or even stop an enemy attack. The engineer should be the staff officer responsible for planning, coordinating, and recording all mine operations, which should include planning scatterable mine delivery systems for likely targets.

Once emplaced, obstacles and mines should be covered by fire. Therefore, the engineer should provide a copy of the obstacle plan to the fire support officer so that indirect fires can be preplanned to cover the obstacles and minefields. In this way, enemy elements that are stopped by the obstacles and mines can be effectively engaged.

Survivability work should also receive the commander's careful consideration. On the next battlefield, piles of dirt and holes in the ground will help soldiers to live longer and will keep their equipment and weapons from being damaged. But such work can easily consume all the available engineer support, so the commander must choose carefully what he wants to have dug in, and he should specify priorities for the work.

DIGGING IN

A commander should consider digging in his key command and control systems, lightly armored weapons, and vital supply points. His exact choices will vary with the situation, the mission, and the tactical plan. For example, in one instance he may decide to dig in his artillery to provide protection, while in another he may elect to have it move frequently to survive longer.

In a defensive situation, the commander will seldom know exactly how much time he will have before an attack, but he should use every bit of time he has — whether it is five minutes or five weeks — to prepare. By making good use of his engineer

resources, he can ensure that, with the passage of time, his defenses will become stronger.

A word needs to be said about digging in tanks and other armored fighting vehicles. The combined arms community does not seem to understand the value of hull down positions, even though an armored vehicle in a hull down fighting position is clearly less vulnerable to enemy fires than it is when standing exposed or moving. If a Soviet T62 tank fires on an M60A1 tank at 2,500 meters, for instance, it has a single-shot kill probability of .17 when the M60 is standing exposed, a .09 probability when the tank is moving, but only a .03 probability when the M60 is in a hull down position.

Some people argue that placing a fighting vehicle in a hull down position sacrifices its maneuverability. This is not true, or should not be, because a vehicle in a hull down position doesn't have to stay there any longer than its commander considers necessary. Heavy engineer earthmoving equipment can dig such a position in about twenty minutes.

Notwithstanding these statistics, armored vehicles should be dug in only in special cases and when there is plenty of time and extensive engineer support. Ordinarily, the most heavily armored weapon systems in a commander's arsenal should be very low on his priority list for additional protection. But in those cases where enough time and enough engineer resources are available, the maneuver commander should recognize the value of hull down positions and use them. Once the battle has been joined, certainly, armored vehicles must not be tied to those positions.

It should be noted that the engineers' ability to dig such positions will improve when the M9 armored combat earthmover (ACE) is issued to the field. Their present bulldozers are slow and vulnerable, but the ACE's mobility is comparable to that of other fighting vehicles, and its light armor will allow it to operate in forward areas under fire.

In the offense, to seize the in-



itiative, retain it, and ruthlessly exploit it, commanders must be able to maneuver rapidly about the battlefield to concentrate their combat power. This means their units must be able to cross all obstacles and minefields with little loss of momentum. The engineer element, therefore, must be able to breach minefields and remove obstacles, and it must have assault, gap-crossing equipment.

But the entire combined arms team is involved in mobility support, not just the engineers, and its effectiveness depends upon well-rehearsed battle drills.

Throughout the history of warfare,

the most successful commanders have been those who made the best coordinated use of all their available forces. Superior combat power generated by effective leadership will probably be the key to success on future battlefields, and engineers are an important part of that combat power. To command a combined arms team in combat, commanders must study the engineer system, master it, and train with it, as they also must do with their other supporting arms. Those who fail to do so will pay a high price for their shortcoming.

And when they have to, these same

engineers can fight as infantrymen. If they can get all the extra personnel, weapons, and equipment that Major Bornmann recommends, that's great. But if they can't, they can still fight, as the Minutemen did, with whatever they happen to have.

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Guard Your Time

MAJOR GARY D. MAYNARD

Limited time may be the biggest problem today's National Guard unit commander has to face. Traditionally, his training has included basic instruction in food service, supply and maintenance procedures, and leadership, as well as instruction in the areas of human relations and counseling. But it has not included training in how to control that most important resource — time.

The National Guard commander's mission of training and increased readiness is essentially the same one the commander of an Active Army unit has, but there is considerable difference between the two when it comes to the training time that is available. An Active Army unit trains an average of 240 days each year, eight hours per day, which amounts to about 2,000 hours a year. But counting weekend drills, annual training periods, and training development sessions, a National Guard unit can count on having only 320 training hours each year, which amounts to about one-sixth of the time available to the Active Army unit.

How does a conscientious National Guard commander overcome the limited amount of training time? The answer is simple: The majority of the key personnel in a National Guard unit must work overtime without extra pay to meet the deadlines and requirements.

There are certain time-management

principles a National Guard commander can use to help him accomplish his mission. The most important ones are these:

- Delegate Responsibility. A National Guard unit commander must delegate everything he possibly can to his subordinates. Although he must keep certain responsibilities and authority for himself unit fund, career counseling, and the like most of his duties can and should be delegated to his junior officers and NCOs.
- Set Priorities. A commander must set priorities and see that his subordinates understand them.
- Handle Paper Only Once. If a piece of correspondence comes across a commander's desk he should take care of it promptly and decisively. If suspense dates are involved, he must make certain they are met, but if a piece of correspondence does not need to be kept in the unit and if no action needs to be taken on it, then it should be discarded.
- Make Lists. Knowing that he has only one 16-hour drill period each month, he must structure his time in advance and should have the drill organized at least one day ahead. His lists should be arranged in chronological order, and the items on it should be ranked by their importance. He should encourage his subordinates to develop their own lists and to use them during the drill periods.

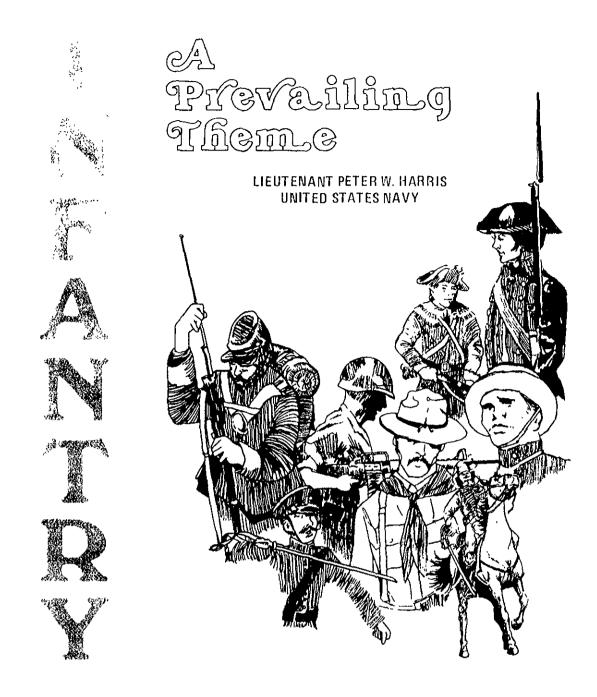
• Keep Meetings Brief. All his meetings should be kept short and to the point. Subordinate leaders, too, should be trained to conduct the business of the day without numerous or lengthy meetings. And the meetings that must be held should be conducted primarily to coordinate job assignments and training times.

Time-management should be made part of the training all National Guard unit commanders receive, and they, in turn, should use that training to develop the same skills in their subordinates.

If National Guard unit commanders will use the time available to them during weekend drill periods in the best way possible, and if they will accustom themselves to practicing good time-management principles, they can overcome the "limited time factor." In addition, they will be able to compete equally well with Active Army commanders in their concurrent missions and will be far better prepared to handle their duties if they are placed in an Active Army status.



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The Infantry has been around for a long time, longer than any other military arm, but it has not always been considered the Queen of Battle. In fact, over the centuries it has been alternately glorified and maligned, and its growth has been spasmodic rather than linear.

Various theories have been advanced to explain this cyclical development, but they have lacked a common theme. Some theories have held that the infantry simply shares the lot of the mass of the population at any given time, that only when man himself is afforded dignity by the social system is the infantry able to respond properly. Another theory is that the infantry is the democratic arm of the service and that wherever a democracy exists so does the man on foot

Other theories attribute the rise and fall of the infantry to pure military science: the cavalry and feudal knights caused the use of infantry to decline. Still others cite technological innovations — the sword, the longbow, the

pike, the rifle, and finally the machinegun — as the chief reasons for the various high points in the development c? the infantry.

But there has to be a great deal more to it than these theories suggest. An analysis of the infantry's peaks and valleys may lead to a prevailing theme that can be used to explain the process of its development and also to suggest its future usefulness.

The graph shown here is offered as a point of departure for such an analysis. Although some might argue about the battles, wars, and practitioners selected for it, as well as about the specific points assigned to them, the graph should prove useful to the discussion.

Records indicate that in the Assyrian Empire (1500-600 B.C., the low point of the curve) men on foot were clearly subordinate to charioteers, and that combat was often waged on an individual basis by mounted kings and nobles. Later the foot soldier was assimilated into the

Persian military forces, treated as a slave, and often fogged into battle

By the tifth century BC, though, the plight of the infantryman was rapidly improving. With the ascendence of the Greek democratic city-state the man of foot had become a "hoplite," who was a free man and an aristocrat, and also a citizen-soldier who created his own laws. He fought side by side with his fellow infantrymen in a unit known as the phalanx, a hedgehog formation that relied on moral and physical solidarity. Its tactical strength and significance were evident at Marathon where its shock power completely routed the Persian host.

But the phalanx was not without its weaknesses. Its inherent solidity made it difficult to maneuver and exposed its flanks to attack. The great Theban general Epaminondas understood this, and his resulting remedy, the oblique order, enabled his outnumbered troops to defeat it e Spartans at the battle of Leuctra.

Alexander the Great continued to improve the phalanx. After extending its range with a longer pike, he used it as a stable yet movable pivot upon which his cavalry could rapidly maneuver. Meanwhile, his light, mobile infantry served as the crucial hinge between the two forces and offered both protection and an offensive capability. The success of his war machine has been well-documented, and it may have reached its fruition at the battle of Arbela.

The infantry, though, had changed. It was no longer the hoplite who fought for his city-state or a member of the Sacred Band who swore allegiance to Epaminondas. Mercenaries had entered the ranks, and Greek civil wars ravaged the Aegean population. By the time Alexander died in 323 B.C., the phalanx was all but forgotten as

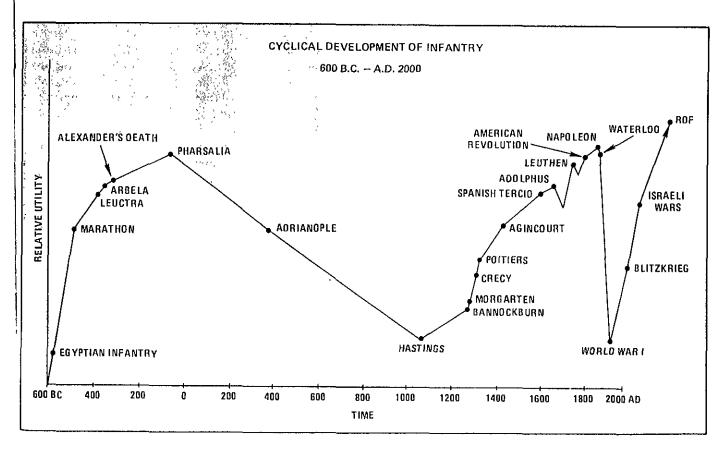
swarming horsemen fought for succession. It was not until the Roman legion manifested itself that the infantry once again came to the torefront.

The legion was an extension of the phalanx in flexibility. Composed of three lines of smaller groups called maniples, and made up of Roman soldiers exclusively, it was fused together by discipline, training, and exercise. It proved its worth in many a battle, perhaps most dramatically at Pharsalia, where Caesar demonstrated that a thoroughly trained and confident infantry could defeat a superior mounted force.

Infantry dominated Roman warfare for the next four centuries, even though fissures began to appear throughout the empire. Training and discipline in the legions were soon undermined by a less rigid entry procedure, which included the admission of alien soldiers. Weak and profligate rulers, furthermore, lacked the mobile reserves necessary to protect their garrisons from marauding barbaric tribes. When the Gothic cavalry finally charged at Adrianople, they met little resistance. Forty thousand men perished in what history has described as a vicious bloodbath.

Adrianople symbolized more than the fall of the western Roman Empire. As the curve indicates, the infantry declined into impotency for a thousand years. As man entered the Dark Ages, his military energy was diverted to the creation and organization of the cavalry. In fact, most historians agree that in the last half of the ninth century local levies of infantrymen were actually discontinued and replaced by horsemen. The man on foot was reduced to doing menial camp tasks and taking part in an occasional siege.

The foot soldier did receive some notice at the battle of



Hastings. Although the Norman knights completed the triumph of cavalry over infantry, they did so only after King Harold's housecarls had proved themselves worthy opponents. Indeed, it seemed that if the foot-soldier only had better weapons and tactics, he might rise once more.

His prayers were answered in the 14th century with the advent of the English longbow and the Swiss pike. Together, they represented what the infantry had been missing since its rout at Adrianople: the principles of missile and shock. The curve reflects the infantry's restoration as a decisive arm from that point on. English knights were routed by Scottish pikemen at Bannockburn, and Swiss peasant infantry smashed the Hapsburg cavalry at Morgarten. Several decades later, French chivalry assured itself virtual extinction at the hands of English archers at Crecy, Poitiers, and Agincourt. But, for all the success of these bowmen and pikemen, they suffered from an inherent and inevitable limitation: a lack of military balance. The archers needed protection, and the pikemen needed mobility.

The Spanish solved this problem by combining the two branches into a single tactical unit called the tercio. With the development of firearms, archers disappeared and the ranks were equally divided between pikemen and musketeers. While the pike was used to repulse a cavalry charge, the musket's firepower enabled the infantry to attack. By 1600, the Spanish infantry had become not only self-sustaining but the dominant influence throughout Renaissance Europe.

But just as the Romans broke the Greek phalanx into maniples, so the Swedish tactician Gustavus Adolphus broke up the tercio. His legions were composed of specialized units deployed in a checkerboard fashion with musketeers outnumbering pikemen three to two. He continued to improve the musketeers' firepower by reducing the depth of their ranks, lightening their muskets, and introducing uniform cartridges for them. He also believed that morale and discipline were basic ingredients for a strong army. By using his highly motivated infantry in combination with his artillery and cavalry, he created one of the greatest armies in history.

So great was his influence on the foot soldier, in fact, that after his death in 1632 the importance of the infantry declined, and cavalry once again ruled the day as Cromwell and Turenne trained their mounted troops to be the exclusive striking arm. It was not until a new weapon and a certain Prussian practitioner arrived in the middle of the 18th century that the infantry finally regained its dominance.

FREDERICK

The new weapon was the socket bayonet, and its subsequent use permitted the infantry of musketeers and pikemen to be combined into one cohesive unit. Frederick the Great came along and demonstrated how drill and discipline could transform this unit into an automaton of maneuverability and firepower. Indeed, under his instruction, the steps of loading a musket were



practiced in such endless detail that his men could fire five rounds a minute as compared to two or three fired by soldiers in other armies. In addition, he developed light infantry troops for scouting and skirmishing as well as horse artillery to provide added firepower. Discipline among his soldiers was so severe that he often boasted that they were more afraid of his officers than of the enemy. As a result, his troops were highly effective.

Frederick's greatest victory came at Leuthen when his oblique order shattered the entrenched Austrians. The battle remains an epoch in military history where masking, mobility, precision, and surprise were fully implemented. It also marked the final demise of cavalry because of Frederick's obsession with firepower. The horse had simply become too large a target for a well-trained infantry.

Ironically, the potency of firepower also changed the infantry, which had become vulnerable in its traditional phalangeal formations. Across the ocean, for instance, the precise drill and columns sometimes came up against American colonists who had adopted flexible Indian tactics to harass the rigid lines of the British.

The effect of the American Revolution on the legitimacy of linear tactics also had a profound influence on Napoleon, who immediately embraced this new strategy, effectively using skirmishers to prepare the final advance of his columns. But as the Napoleonic Wars drained the resources of France, and as Napoleon began to rely more on his artillery, the man on foot was again gradually pushed into the background.

The infantry continued this slide well into the 19th century. In Europe, conservative generals who could not shake off their parade-ground mentality watched helplessly as their conventional columns were decimated by superior firepower.

In World War I the infantry succumbed to a new weapon, the machinegun. No longer did the infantryman probe for open flanks when frontal assaults became useless. Instead, he dug in and merely occupied ground that the artillery had conquered. From medieval camp follower to housecart at Hastings to modern barrage.

follower, the man on foot had ultimately completed his cond cycle and reached another low point on the curve.

It was during World War II, Korea, and Vietnam that the foot soldier gradually became modern, mobile and mechanized. Along with the development of the German blitzkreig, he was being dropped by parachute, landed in special amphibious craft, and supported by low-flying tactical aircraft. Linear warfare was discarded for infiltration tactics, with platoons moving in assault echelon. He gained ground by using superior firepower and was often supported by tanks and artillery.

But the nuclear era did not make his war any less personal. Battles were still fought on his level, and it was ultimately his courage and his intuitive guile that produced final victory.

What conclusions can be drawn from the history of infantry as shown on the curve? Previous theories that have



explained the rise and fall of infantry neglected the art of war as it was conducted by its greatest practitioners, and this disregard has confused and clouded the issue. I see the common elements of the peaks and valleys in the development of infantry as being simply a case of leverage.

CHENG AND CH'I

The dominant and prevailing theme, then, in this rise and fall seems to be related to Sun Tzu's tactics of cheng and ch'i. The Chinese philosopher described the former as a holding power and the latter as forcing a decision by flanking or encircling. I contend that infantry has always

been essentially a cheng and that it has been successful only when accompanied by the ch'i. There have been isolated cases, of course, in which the cheng has been strong enough to exist without the ch'i — Swiss pikemen, for example — but usually the two must exist together. Alexander's army is a perfect illustration. While his phalanx (the cheng) gripped the enemy by the throat, his cavalry (the ch'i) would swing in with the knock-out blow.

In fact, the entire infantry curve can be viewed through this lens of fix and maneuver. When both were present, such as at Arbela and Austerlitz, the infantry gained decisiveness as an arm. When this maneuverability disappeared, infantry was less useful. The "troughs" of the curve created by Adrianople and by the Maginot mentality of World War I show that the infantry had lost its mobility and, with it, its ability to maneuver.

Skeptics would argue that this theory presupposes a supporting arm, whether artillery or cavalry, and that the infantry as a detached arm has little or no importance. But military analysts usually classify an offensive force as one that combines four elements — mobility, protection, striking power, and holding power. Clearly, cavalry and artillery can provide a strike capability, but the infantry with its inherent capacity for occupying a large area is indispensable in conquering an enemy. Furthermore, infantry that has been able to combine all four elements has been the most successful.



History has proved this point. The Greeks, with no artillery or cavalry, achieved near perfection at Marathon and Leuctra, both classic examples of cheng and ch'i, to gain leverage over an opponent. In more modern times the German blitzkrieg exploited the subtleties of Sun Tzu's tactics through deception and surprise. It successfully weakened the enemy with quick thrusts and finally maneuvered to shatter his will to resist. The combination of cheng and ch'i in this respect is more than a fix and maneuver game. It is a philosophy of the indirect approach, a conflict in which a unit never knows from which direction it is going to be hit next. It is this infinite ability to deliver combinations of punches that makes cheng and ch'i such a menacing threat. Warfare is no longer just physical; it has also become a mental and moral struggle.

I maintain that loyalty to these principles of deception and surprise has distinguished the great leaders of the past and made them artists rather than merely artisans of warfare. The points on the curve reflect this loyalty, and the lack of it. Napoleon's rise and fall, for example, is predicated primarily on the application of cheng and ch'i. In his early campaigns he cloaked his plans, generated misinformation, and followed up his dispersed components with tactical concentrations. It was only when he started to rely on his heavy artillery that he became rigid and predictable. As Wellington said of Waterloo, "Napoleon did not maneuver at all. He just moved rorward in the old style and was driven off in the old style." Napoleon's defeat was perhaps inevitable when he departed from cheng and ch'i.

Certainly technological and sociological developments have also contributed to the highs and the lows in the development of infantry. The advent of improved weapon systems, for example, has helped redefine the infantry's role in combat over the years. But, unfortunately, historians have tended to overemphasize the role of science and to completely ignore the operational side of warfare, and herein lies the problem. By neglecting strategy and tactics, they have given us a false representation of infantry's usefulness.

Despite these other influences, the philosophy of cheng and ch'i does seem to be the prevailing theme. It has been around for more than two thousand years, and whether fidelity to it at various times has been conscious or accidental, the infantry leaders who have incorporated its basic concepts have been the most successful.

IMPLICATIONS

But does this ancient philosophy of Sun Tzu's have any implications in modern combat? And if it is really a prevailing theme, will it continue to be valid in the future? The answer on both counts is a most emphatic yes. In fact, the concept is very much alive today, though disguised under a new label — maneuver warfare. It has sparked a new debate, in fact, on the employment of maneuver versus attrition. Which side will win in a showdown is naturally a question of primary concern.

But the answer seems clear. Since the average U.S. in-

fantryman can expect to go into battle outnumbered and, on a weapon-for-weapon basis, outgunned, it seems ludicrous to have him engaged in an attrition contest. Only the side with material superiority can afford to do that The Israeli campaigns against her neighbors certainly demonstrate this point quite convincingly.

Unfortunately, and although the Vietnam experience demonstrated the folly of attrition, the U.S. still seems to have delusions of material superiority. The fact is that most military analysts still cling to that old myth that hardware is first. Only when we return to Sun Tzu's concept of the direct and indirect approach can we understand that warfare is primarily a mental conflict and that to win without fighting is the essence of skill.

The U.S. response to the various threats it may have to face around the world is its Rapid Deployment Force (RDF), but its potential use remains a mystery. The Joint Chiefs of Staff are no doubt asking the same question that Alexander asked at Arbela and that Caesar asked at Pharsalia: How does an inferior force defeat a larger one? The answer is that it finds a way to distract the enemy and at the same time deliver a death blow to his flank or rear, which is the essence of cheng and ch'i.

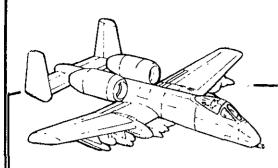
The present RDF, however, is incapable of executing such an offensive philosophy. What is needed is a small, agile, tactically capable intervention force, governed by a single, unified command supported by sea power and similar to today's U.S. Marine Corps. The battalions assigned would be the elite of the elite, a modern infantry with not only protection and mobility but a holding and a striking power as well. The foot soldier in its ranks would define a new apex on the curve and establish a whole new dimension in the development of infantry. Such a force would represent a hand-picked infantry that sought to revive the real infantry tradition of the phalanx, the legion, the tercio, the French column, and the art of maneuver warfare.

One thing remains certain. The passage of time may have revolutionized the battlefield, but infantry's presence and principles remain unchanged. When the smoke cleared from the bomb craters on the Ho Chi Minh trail, it was the American foot soldier who ultimately closed with the enemy and rooted out the obstinate defender.

In the future, as in the past, the infantry forces that adhere most closely to Sun Tzu's concept of cheng and ch'i will form new high points on the curve of infantry development.



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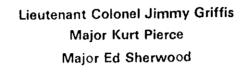


THE

MECHANIZED INFANTRY BATTALION TASK FORCE

IN

THE AIRLAND BATTLE





operating in a contaminated environment.

of far-reaching changes, not only in its organizational at all echelons to incorporate these considerations into structure - Division 86, for example - but in its adoptheir planning and training. Thus, in a defensive operation of major new weapon systems. The results will intion, the terrain that offers the best position in a nonfluence how the Army will fight. integrated environment may not be the best terrain on The AirLand battle concept is the Army's strategy for which to position units that face the threat of a nuclear or implementing these changes. It encompasses a battlefield on which integrated operations will be conducted a chemical attack. This may force the battalion to throughout its depth and extended deep into enemy-held prepare defensive positions in valleys, other low areas, or towns to place cover between it and the nuclear explo-The U.S. Army Infantry School is considering some sions or chemical agent. And positions that provide good protection against the effects of nuclear weapons may be

ideas for developing combined arms doctrine for the AirLand battle concept and, at the same time, is taking a number of steps toward implementing the concept. The ideas on both development and implementation focus on a mechanized infantry battalion task force and on how the integrated and extended aspects of the AirLand battle might affect it.

n the next few years, the Army will undergo a number

INTEGRATED BATTLEFIELD

A task force commander whose unit is committed to fight on an integrated battlefield will have many things to consider, some of them not necessarily new to him. He will still have to plan to disperse his forces over a wide area; he will still have to be able to concentrate his units quickly at the proper times and places; and he will still have to know how to use the terrain for its shielding effects and the weather to limit his opponent's vision. Similarly, his units will still have to know how to detect toxic agents and how to take the proper precautions for

What will be new is the need for him and commanders poor ones for gaining protection against chemical agents.

Plans must be made to move from these positions to better, more defensible terrain after the enemy has employed his weapons but before he closes for the attack. Of course, the task force must also be prepared to fight from its original positions if its opponents should launch an attack immediately after using a nuclear weapon or toxic agents, or if the terrain has been so altered by a nuclear blast as to make a move impractical.

The task force commander must also consider this possible alteration of terrain, because blast effects or contaminated zones can make good avenues of approach impassable, close roads and supply routes between battle positions, and completely alter fields of fire. Positions planned for combat support and combat service support units may also become unusable. Accordingly, the task force commander and his principal subordinates must be ready to make the necessary changes in their unit dispositions before the opposing forces get too close. Engineers must be used wisely because of the assistance they can



provide in digging in and in clearing obstacles.

To counter his opponent's weapon systems, the task force commander can take a number of actions before and during the battle. Deceptive measures are among the most important and must accomplish two things: they must deceive the enemy as to the intentions of the task force, and they must present a false picture of the units' actual dispositions. As his defenses are thinned out to obtain necessary dispersion, the commander must make the enemy believe that a strong, cohesive defense is still in place. Otherwise, the enemy may concentrate his forces and conduct a hasty attack. But in painting such a picture of combat strength, the task force commander must be careful not to paint such a rosy picture that it encourages the opposing force commander to use a nuclear weapon against him.

Further, all combat systems must be protected, particularly the task force's radios, wire nets, and computers, since these are most vulnerable to the electromagnetic pulse from a nuclear explosion. The task force's soldiers can also be ordered to wear all their protective clothing. While this clothing might diminish their in-

dividual performance, it does provide them a good measure of protection that could well mean the difference between winning and losing a battle.

At the same time, the commander should expect a nuclear or chemical attack against his units to cause a large number of personnel casualties and much damage to equipment, as well as psychological stress on an unprecedented scale. The evacuation of personnel casualties and the repair and replacement of equipment will require herculean efforts from all concerned.

If the task force does successfully withstand the blast effects from a nuclear explosion, it will then have to contend with radioactive fallout. The same will hold true for a chemical attack. Because platoons or companies may have to be taken from the front lines to be decontaminated, a process that could take several hours, it is safe to assume that, at times, units may have to fight with contaminated personnel and equipment before they can be withdrawn.

Plans for reconstituting the task force when the need arises must be made above task force level. The brigade reserve can be used to replace a forward unit, for exam-

ple, and that unit can then be moved to a reserve position where it can be reconstituted. The battalion can also help itself by using "straggler platoons" to reconstitute companies.

Although the integrated battlefield will be a challenge, to say the least, it should not be put in a "too hard to handle" box. Instead, how to handle it should be considered now and included in all operational planning and training programs.

THE DEEP BATTLE

The integrated battlefield can be thought of as having three complementary components: rear area combat operations, the close-in battle, and the deep battle. Battalions and brigades are normally most concerned with the close-in battle. Divisions and corps fight the close-in battle and the deep battle as part of a unified battle plan.

The goals of the deep battle are to take the pressure off the forces conducting the close-in battle, and to create opportunities for those forces to eventually initiate offensive operations. The objective is to take away some of the opposing force's combat power that might otherwise be brought to bear against the units conducting the close-in battle. Thus, deep attacks can be made against an opposing force's reserve or follow-on units, against its command and control facilities, or against its supporting infrastructure.

While the deep attack usually will be conducted with long-range weapons, including air interdiction sorties, ground maneuver units may conduct deep attacks, either by air assaults or by deliberate ground attacks by combined arms forces equipped with Bradley fighting vehicles and Abrams tanks. Thus, a mechanized infantry battalion task force could be sent around an opposing force's lines or through a gap in them to attack "soft" targets 10 to 15 kilometers behind the front lines. Typical targets would include artillery units, air defense weapons, logistical installations, and command posts. Limited attacks could even be made against maneuver units.

The deep attack itself will closely resemble a raid in that the attacking force should hit quickly, inflict the greatest possible damage, and get out before the opposing force can react. On rare occasions, plans could call for linking up with friendly units at a designated place after the deep attack force had carried out its mission.

Admittedly, the decision to commit a battalion task force to a deep attack could be a risky one. But the tremendous payoff that could result from a successful operation makes it definitely worth considering. It is an operation that is normally planned and controlled by division — the attacking task force must be augmented with enough combat support and combat service support assets to allow it to accomplish its mission and get back to friendly lines. These must include engineer, air defense artillery, and attack helicopter units.

If a decision is made to use a battalion task force in a deep attack, certain requirements must be met before it is sent off.

• The operation should be planned and controlled by

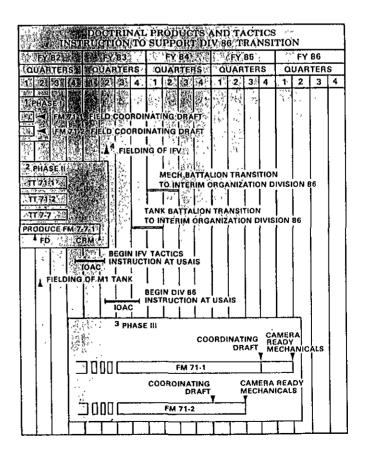
the headquarters of the division to which the task force belongs.

- Intelligence data must be accurate, detailed, and continuous.
- The terrain and weather must lend themselves to a deep attack.
- Fire support, from artillery units and from aerial elements, must be immediately available to the task force all the way to the objective.
- The task force must have plans for treating its personnel casualties since their evacuation might be difficult at best.
- Damaged or disabled vehicles, weapon systems, and other equipment will have to be destroyed in place, and the task force must carry along the necessary means to do the job.
- Detailed plans must be made for the task force to reenter friendly lines, either as a complete entity or broken into smaller elements.

IMPLEMENTATION

The Infantry School recognizes the importance of implementing the AirLand battle concept as quickly as possible. The dates for the introduction of the new family of fighting vehicles and the Division 86 organization, and for the preparation and use of new doctrinal literature are shown in the accompanying chart.

The development of the Bradley Infantry Fighting Vehicle (BIFV) and its introduction into the Army in early 1983 will form the centerpiece of the Infantry's con-



tribution to the AirLand battle. The Infantry School's BIFV training strategy has been developed to help units field the new vehicles.

The development of doctrinal literature to support that strategy is an important aspect of the School's overall program as well. Based on guidance in the Division 86 Transition Plan, published by Headquarters, Training and Doctrine Command (TRADOC), 8 April 1981, the Infantry School and the U.S. Army Armor Center (USAARMC) have jointly agreed to produce doctrinal publications in three phases.

Phase I includes reviewing FM 71-2, The Tank and Mechanized Infantry Battalion Task Force; FM 71-1, The Tank and Mechanized Infantry Company Team; and FM 7-20, The Infantry Battalion (Infantry, Airborne, Air Assault). The revision will be based on the changes in doctrine in the latest edition of FM 100-5, Operations (Draft). The manuals themselves will be based on the H-series TOE and on such current equipment as the M60 tank and the M113 armored personnel carrier. The manuals are to be fielded in coordinating draft form (soft cover) by April 1982.

Additionally, the Infantry School has sent Special Text 7-7-1, The Mechanized Infantry Platoon and Squad (BIFV), to all service schools and to selected field units and headquarters for review and comment. After the Active Army has converted to the Division 86 organization, all of these manuals will be used by the Reserve Components until they, too, have been reorganized.

During Phase II, the Infantry School will develop training texts (TTs) for mechanized infantry units, and the Armor School will develop training texts for armor units. TT 71-2, The Mechanized Infantry Battalion Task Force; TT 71-1, The Mechanized Infantry Company Team; and TT 7-7, The Mechanized Infantry Platoon/Squad will be fielded by the Infantry School before 1 July 1982.

These Phase II texts will expand on the Phase I publications to include doctrine for units organized under a Division 86 interim organization and equipped with either old or new equipment, or both. More specifically, these texts will tell a commander how to conduct a battle if his organization is equipped with M1 tanks and M2/M3 fighting vehicles, or with a mixture of M1 tanks and M113s or of M2/M3s and M60 tanks. FM 7-7-1, The Mechanized Infantry Platoon/Squad (BIFV), will also be fielded during this phase.

In Phase III, FM 71-2 and FM 71-1 will be developed

to provide the doctrine needed by units that are organized under the Division 86 scheme and completely equipped with the new systems. These efforts will begin in the latter part of Fiscal Year 1982, but drafts of the publications will not be fielded until the latter part of Fiscal Year 1983.

A second and equally important feature of the overall plan will be the introduction of the AirLand battle concept into the Infantry School's instructional program. The integrated battlefield is now being taught, and classes in the Division 86 organization and in the tactics associated with the BIFV have already begun. Specifically, the transitional mixtures of vehicles (M113/M60A3, M1/M113, M2/M60A3, and M1/M2) and the effects of these mixtures on task organization and tactical employment are being discussed, as well as the effects of the addition of a maneuver company and an antitank company in a Division 86 battalion.

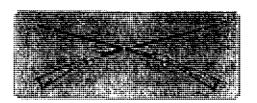
The Commandant of the Infantry School has also begun a program to disseminate information to the field on the doctrine and training needed to support the fielding of the new weapon systems, the Division 86 organizations, and the AirLand battle concept. The initial package in that information program, entitled "Dialogue 82," consists of television tapes and magazine articles such as this one.

THRESHOLD

In the months and years ahead, the Army will undergo many changes, and the Infantry School finds itself on the threshold of a major undertaking. Its initial task is to inform the infantry community on what is happening and to make plans that will help it implement the AirLand battle concept, field the new systems, and move into the Division 86 organization as painlessly as possible.

During the critical transition period ahead, infantry units must be ready to fight if they are called on. The Infantry School feels that the efforts it has begun will help infantry units everywhere to accomplish that goal.

THE AUTHORS, at the time they prepared this article, were serving as writers of the Infantry doctrine at the U.S. Army Infantry School. Colonel Griffis was chief of the Doctrinal Literature Division of the Command, Tactics, and Doctrine Department. Majors Pierce and Sherwood were senior project officers in that Department.



Mitack of A DESERT STRONGPOINT CAPTAIN WAYNE J. SABO CAPTAIN EDWIN L. KENNEDY, JR.

The Army's battlefield of the future may be anywhere in the world, and its units must be prepared to fight on it no matter what its terrain or its climate. At the moment, national interests have dictated that the Army pay particular attention to areas such as the Middle East where large desert areas exist. Accordingly, more and more of the Army's training efforts, particularly at the National Training Center at Fort Irwin, California, are being devoted to training units to fight in desert areas.

Unfortunately, one subject that is not usually discussed in either today's training literature or training programs is the proper way for armor and mechanized infantry units to conduct assault breachings of desert fortifications. And nowhere in that literature are there detailed descriptions of the kinds of fortifications that are most likely to be found in the deserts of the Middle East.

Although desert strongpoint fortifications have played an important role in several wars of the past, including World War II, they could usually be bypassed. But in more recent wars such strongpoints have become more important for several reasons: the extended ranges of antiarmor weapons, the predominance of open terrain, and the ability of the opposing forces to create mobile reserves. During the 1973 Mideast War, for example, strongpoints became an important consideration for the attacker, and some valid lessons have been learned from these experiences.

Two major types of strongpoint fortifications were identified during the early stages of that war. These featured a 360-degree defense, combined arms integration, extensive obstacle systems, and mutual support.

One of the two made only a brief appearance. It had a circular construction with a central command post and with trenches radiating from the center like the spokes of a wheel. These, in turn, led to semi-circular trench systems. The faults of this type of fortification became evident when it was found that the ground level trenches were poor locations from which to gain extended fields of fire, because they could be suppressed or isolated and then reduced. Besides, trench systems did not lend themselves to the terrain. The ground was either too hard or rocky for ditching machines or too soft and sandy to support trench systems.

It was because of the nature of the terrain that the other type of strongpoint fortification came into being. This was the *pita*, so-called because of its similarity to the round loaves of bread baked by the inhabitants of the Mediterranean area. It provided the answer to many of the problems of the other type of fortification, and it is the one that is in general use throughout the Middle East today (see Figure 1).

The pita is formed by bulldozing the topmost layer of soil from the inside and outside of a planned fortification to form a circular berm. The benefits are immediately apparent. Unlike the trench system used with the other type of fortification, the berm provides an excellent obstacle to vehicle movement and acts as an excellent firing platform. In fact, in relatively flat or open terrain the berm itself becomes the "dominant" terrain from which a defender can obtain excellent observation and fields of

fire. The berm's height — some three to five meters above the desert floor — also helps to negate the effects of heat haze in the summer by providing a raised firing platform.

The pita does have some weaknesses. Although its circular shape offers all around security, it also limits the number of weapons a defender can bring to bear on a particular field of fire. And while it can be quickly constructed, the basic pita does require a lot of labor and material resources if any kind of improvements at all are going to be made to it. For example, positions dug into the top of the berm and connected with trenches, overhead cover for those positions, bunker complexes, and obstacle systems will all call for the commitment of considerable numbers of men and amounts of material. Standard barrier and obstacle systems — antitank ditches, mines, protective wire — are used with each pita.

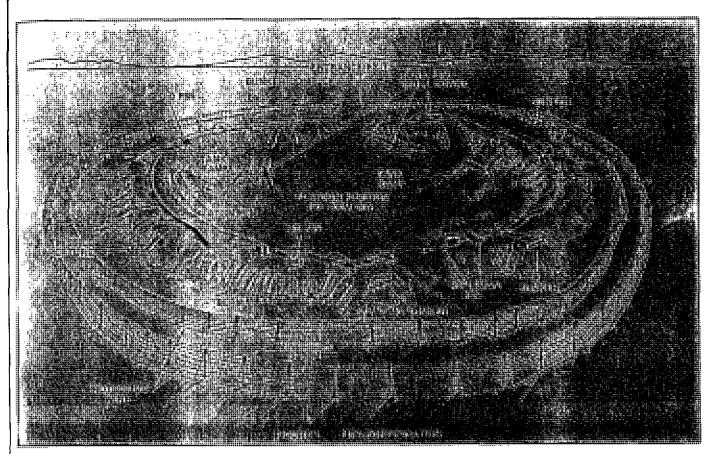
In addition to the system of protective wire and personnel mines that surrounds the pita itself, a series of major obstacles is normally placed across the armor avenues of approach to the pita (see Figure 2). Out 400 to 500 meters in front of the pita is the first of these — an antivehicle minefield 80 to 120 meters deep. This minefield protects the approach to an antitank ditch, which is designed to halt an attacker or to canalize him into the pita's crew-served weapons' fields of fire. Additionally, the berm on the far side of the ditch acts as an initial defensive position for infantry skirmishers.

A number of pitas are usually built at the same time one to two kilometers apart, and these are echeloned with some three to four kilometers between echelons. Each echelon is organized into battalion and company defense sectors, and the pitas within each echelon are mutually supporting. Second echelon forces may also provide supporting fires in depth to prevent the flanking or encirclement of a first echelon pita.

Although the positioning of pitas one to two kilometers apart may seem excessive for preventing infiltration by an attacker's infantry elements, their primary purpose is to form an obstacle to armor movement. The pita itself is a physical obstacle to mounted movement, because its walls are too steep for tracked vehicles to climb over.

The typical pita is organized around the combined arms concept of infantry and armor and is designed to facilitate the use of armored vehicles from within. Thus, tank firing ramps are usually built along the inside walls to permit the tanks to fire out of the pita from hull defilade positions. Antiarmor elements cover the armor avenues of approach from positions built into the walls of the pita. Antitank guided missiles (ATGMs) are located in firing ports in the berm and are usually provided with some kind of overhead cover. Mortars can be easily sited within the pita, where they are relatively safe from an attacker's direct fire.

Direct fire small arms positions are also usually placed in covered positions with firing apertures. Machineguns are most often given this type of position, while rifle pits are located along the top of the berm in a trench line. Recoilless weapons are put in firing positions along the



top of the berm to allow for their backblasts.

Pitas vary from platoon to company size, with the platoon size being the most common. The diameter of the interior of the platoon fortification ranges from 150 to 200 meters. One opening, for entrance and exit, located toward the defender's rear, is protected by weapon emplacements. Armored vehicles that operate initially outside the fortification can move inside to their prepared positions when the situation demands it. Bunker complexes for command and control and for troop quarters are built into the side of the berm. Supplementary positions are also constructed when there is time, and these allow the strongpoint's forces to shift around inside the pita without being exposed to an attacker's direct fires.

It was found during the 1973 war, and confirmed since then, that bypassing or neutralizing a pita is difficult at best, because an attacker is actually going up against a belt of fortifications. He must, therefore, force his way through each defensive belt, the first of which is generally the best prepared. Once he breaks through the first belt, he must then retain the initiative and, more important, the momentum of his attack if he is to overcome the second and third belts. But the task is not an impossible one. If the attack is forced home vigorously, pitas can be overcome and the defensive belts disrupted.

SUPPORT EQUIPMENT

Conducting an assault against such a defensive system requires meticulous planning and an abundance of special support equipment. Engineer support is especially critical. Unfortunately, some of the Army's present sup-

porting equipment leaves a lot to be desired.

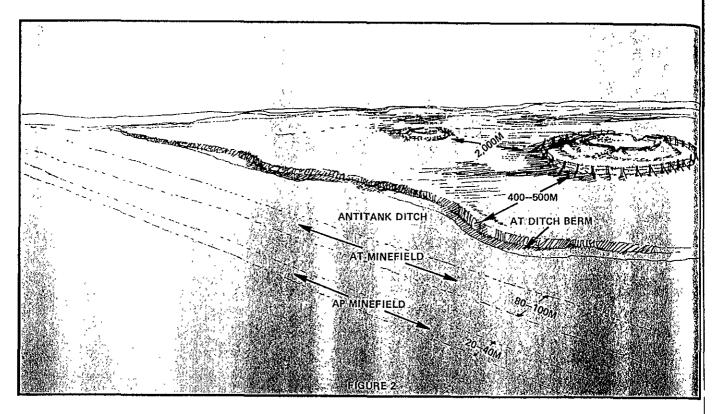
The projected charge demolition kit, M157 (a tank-emplaced bangalore torpedo), for instance, is bulky and difficult to handle and assemble under battle conditions. In fact, in a desert environment, the M157 is not a desirable system to use for breaching an obstacle.

The projected charge demolition kit, M173 (boat charge), is better for breaching, even though it, too, has some drawbacks — it cannot be pulled long distances, it cannot traverse rough terrain, and it is slow. But it is rocket projected, is easy to use, and does not require a lot of time to emplace.

Another problem the Army has not yet solved is locating and marking an opponent's minefields. Its present methods are slow and extremely hazardous for the soldiers involved. The developmental models of mineroller tanks now being used in Europe seem to provide the best answer to the problem, because they can move across open terrain quickly and can find as well as detonate mines. If these specially equipped vehicles can be procured in sufficient numbers for all units then the task of breaching minefields under combat conditions will be greatly simplified.

In addition, the Army still needs more and better assault bridging equipment and combat engineer vehicles (CEVs) to assist its units in crossing such obstacles as antitank ditches and wire entanglements. The only items of assault bridging equipment either now in the Army's inventory or projected for the near future are the present armored vehicle launch bridge (AVLB) and its replacement, the BR80.

Some small items of special equipment that can be used by infantry assault units can usually be acquired more



easily or can be fabricated at the unit level. These include scaling ladders, wire cutters, bangalore torpedos, and lane-marking poles and tape.

After the equipment needed for an assault has been gathered and prepared, the assault unit, if possible, should hold a rehearsal over ground that is similar to that around its objective. Mock fortifications and ditches should be built to familiarize the leaders and the troops with their specific tasks. The distances and fortifications should resemble as closely as possible those that will be encountered.

Additional quantities of ammunition must also be arranged for. Indirect fire support will play an important role in any attack against a pita system, and suppressive fires as well as obscuration fires can determine the success or failure of an assault. Sustaining an effective smoke screen between the pita and the friendly forces, for example, can require ammunition in amounts not usually carried in a basic load.

The attacking force should be organized according to function. Thus, support, breaching, and assault elements should be organized for, and assigned, specific missions. The breaching element should consist largely of infantrymen to take care of any of the opposing force's soldiers who might be deployed on the berm of the antitank ditch to delay the attacker's advance. The assault element, too, should contain mostly infantrymen so that it can assault and clear the pita itself. The support element, primarily armor units reinforced with ATGMs, should engage any antiarmor weapons and exposed armored vehicles, and exploit the successes of the assault element.

Since pitas are built to be mutually supporting, the approach to any one of them should be as much as possible to the side that masks the fires from a supporting

pita. If this is not possible, the pita should be approached from the closest position that provides cover and concealment.

This is how a mechanized infantry company as part of a larger force, with a tank platoon, engineers, and three minerollers attached, might go about attacking and reducing a platoon-sized pita. It must be assumed, of course, that other pitas in the defensive system will be under attack at the same time

The attack should be conducted rapidly to achieve surprise and to prevent the enemy from employing his mobile reserves. Artillery fire should initially suppress and destroy the infantry around the antitank ditch and its berm. Support elements that are providing overwatch should engage antitank weapons and exposed armored vehicles when the assault begins.

The company team's task organization would probably look like this: the three mineroller tanks, one with an M173 demolition charge, in the lead, followed by an engineer M113, the company team commander in another M113, a mechanized infantry platoon in four M113s, an AVLB, a CEV, two more tanks, and, finally, two more infantry platoons, each with four M113s.

Movement into the actual assault phase would be conducted with the mineroller tanks leading. The two tanks without the M173 charge would move forward, keeping about 100 meters between them. The tank with the M173 would follow centered and 100 meters behind the leading tanks. This tank should carry the tank platoon leader as well as an engineer to operate the demolition charge. In the meantime, direct and indirect suppressive and obscuration fires would be falling on and around the team's objectives as well as on the other pitas in the system.

When one of the lead mineroller tanks encounters the

edge of the opposing force's antitank minefield it should hait, a member of its crew should dismount to mark the edge of the field in an appropriate fashion, and the tank with the M173 should be brought forward to that tank's position. The engineer should then disconnect the M173 by activating a quick-release charge, and after the tanks have moved away, should fire the M173 from inside his tank.

The two mineroller tanks should move immediately into the breached area following a staggered path until they reach the antitank ditch. Even as the tanks work their way through the minefield, the team's engineers should move in behind them to mark the edges of the breach. After the engineers have reached the antitank ditch, they should take up positions from which they can give fire support to the infantrymen.

The leading infantrymen should follow closely on the heels of the engineers. Initially, one squad's vehicle as well as the platoon leader's vehicle should remain at the entrance to the breach to provide overwatching suppressive fires. Two squads should then be sent through the breach to cross the antitank ditch by using their scaling ladders. One squad should begin clearing a portion of the antitank ditch berm to the left of the entry point, the other the portion to the right to eliminate any enemy infantrymen who are defending forward of the strong-point.

Once the berm has been cleared, the AVLB should be brought forward and its bridge emplaced so that the attached tank platoon can cross. The other infantry platoons should follow, while the CEV should begin to fill the ditch with soil from the berm.

At the pita proper, any wire obstacles that have not been destroyed by artillery must be breached by the leading infantry platoon to provide lanes for the personnel and, if possible, for the vehicles. Because the area between the close-in protective wire and the pita's berm is generally mined with antipersonnel mines, the last 20 to 25 meters must be traversed by the infantry mounted on M113s or tanks, or the minefields must be breached with bangalore torpedos.

Each of the two infantry platoons should create its own lane through the final obstacles if possible. They should attempt a mounted assault by driving through the wire and the antipersonnel minefield. Once they reach the pita's berm, the carriers should be parked with their front ends toward the berm, and the infantrymen should leave them by using the cargo hatch, then going over the deck and off the front slope to avoid the remaining mines.

The assaulting platoons should enter the pita at a single point. The point of entry into the pita should have, initially, a three-man element from each platoon armed with LAWs or Vipers and machineguns to provide suppression inside the pita and to destroy any armored targets.

The squads within each platoon — organized into three-man clearing and security teams — should then begin a systematic clearing of the pita's trenches, bypassing and securing bunker complexes until the mop-up

phase. Each of the clearing teams should be armed with grenades, rifles, and one M203 grenade launcher, with the soldiers rotating duties as they move along. Back-up clearing teams should follow the lead teams closely and should take over from them if they suffer casualties or run low on ammunition. All of the other elements of the company team should lend support with overwatching suppressive fires.

The clearing teams should be closely controlled so that they will not fire on each other, particularly as they begin to converge at the far side of the pita. It is important, too, that the other elements of the company team know where the clearing teams are so that they will not fire on them. One technique that can be used is to have the forward clearing teams carry distinctive pennants on poles to show their exact locations.

When the pita has been cleared, the overall commander of the operation — probably a battalion or brigade commander — must decide if the situation calls for a rapid exploitation by his armored forces or if more pitas have to be cleared by his infantry units. If possible, he should consider shifting to a lateral attack to roll up the flanks of the entire defensive area. Underlying his decision would be the absolute need for this force to maintain its initiative and momentum to keep the opposing force off balance.

This proposed method of assaulting a pita strongpoint fortification uses equipment now in the Army's inventory, including minerollers being issued to units in Europe. Task organizations and the actual conduct of the assault can easily be adapted to different situations in different environments using the same equipment.

One remaining task is to stimulate thought and discussion among professional soldiers regarding different techniques that might be used to conduct mounted assault breachings, especially in the desert. Such thought and discussion should lead to the development and publication of detailed information on these techniques.

And given adequate doctrine on the subject, the Army's mechanized infantry and armor forces should be able to conduct better and more realistic training. This, in turn, should enable these forces to handle strongpoint fortifications in the desert or anywhere else.



CAPTAIN WAYNE J. SABO is a tactics instructor at the U.S. Army Infantry School. A 1972 ROTC graduate of the University of Illinais, Chicago Circle, he has attended the Infantry Officer Basic and Advanced Courses and recently completed the Israeli Armored Corps Commander's Course He has served in several assignments with the 2d Armored Division, including company executive officer, scout platoon leader, and battalion motor refferer.



CAPTAIN EDWIN L KENNEDY, Jr., is now assigned to the Doctrinal Literature Division of the Command, Tactics, and Doctrine Department of the Infantry School. A 1976 graduate of the U.S. Military Academy, he also has attended the Infantry Officer Basic and Advanced Courses and the Israeli course. He has served as an antitank platoon leader, an S-3 Air, and a mechanized infantry rifle company commander with the 1st Infantry Division



crossing the Rolle

In early March 1945 almost any tactical situation map of the Western Front in Europe would have painted a rosy picture for the Allies. All along the Rhine River, German forces, weakened by their losses in the Battle of the Bulge and by the transfer of troops to meet the rising Russian threat on the Eastern Front, were withdrawing to the east bank of the Rhine, destroying bridges behind them.

On the Allied side, forces were strung out all along the west bank of the Rhine. The United States Ninth and Canadian First Armies had linked up near Wesel and Dusseldorf in the north, the First U.S. Army was approaching Remagen, the Third U.S. Army was heading for Frankfurt, and the Seventh U.S. and First French Armies were moving toward Stuttgart and Worms.

Through a German error the Ludendorff Bridge at Remagen was still intact when elements of the U.S. 9th Armored Division arrived and seized it before it could be blown. Its seizure was one of the biggest coups of the war, because it gave the Allied forces a highway across the Rhine. Not since 1804, when Napoleon's forces crossed the river to defeat the Austrians at Ulm, had an invading army crossed it.

But this was by no means to be the only crossing of the Rhine. Preparations were under way up and down the river for the establishment of other bridgeheads. In the end, the job of conducting the first assault crossing fell to the 5th Infantry Division. The Red Devils of the 5th Division got the job because they had the best record for river crossings in the Third Army, having conducted a total of 30, with five of them being assault crossings.

Elements of the division reached the Rhine in the vicinity of Oppenheim on 21 March and began deploying on the west bank. By the morning of 22 March the bulk of the division had arrived. All the division staff needed at this point was two or three days in which to plan a crossing. What it got was only a few hours, because the Germans were already diverting troops from the American bridgehead at Remagen to meet the new threat posed by the Third Army. Every hour's delay, therefore, reduced the chances for a successful crossing. No one knew this better than the Third Army commander, General George S. Patton, Jr. Patton also knew that the British 21st Army Group in the north was about to try an assault crossing of the Rhine. In deciding to rush the 5th Division's crossing, Patton may have been partly motivated by a desire to be first. In any event, on the morning of 22 March, he ordered the crossing to take place that night.

There were endless details to be worked out. Assault teams had to be assembled, armed, and equipped; boats had to be obtained and brought forward to the crossing site; artillery support had to be organized; guns of all calibers had to be brought up and emplaced; and troops, equipment, and supplies had to be scheduled for movement.

This is where the division's experience in river crossings paid off, because a miracle of planning took place in the few hours that were available. The final plan called for the initial crossing to be made by the 1st and 3d Battalions of the 11th Infantry. The 10th and 2d Infantry

Regiments would follow in that order, and these would be followed by the 90th Infantry and 6th Armored Divisions. The 4th Armored Division was prepared to strike behind the 5th's bridgehead.

Tremendous quantities of bridging and ferrying equipment were brought up by engineer units and special port battalion personnel. Supporting artillery units were massed in firing positions. The firing plan called for nearly 200 concentrations to cover the far shore from the water's edge to several hundred yards inland, concentrations on all roads and trails leading to the bridgehead area, and heavy concentrations on several towns in the surrounding areas. But none of these were to be fired except on call.

CROSSING

At precisely 2145 hours, Companies I and K of the 3d Battalion, which were to spearhead the crossing, moved down to the river bank. Before them the engineers had laid out the assault boats, and the assault teams carried the boats to the river, launched them, and climbed aboard. The night was cloudy as the troops began paddling across the 800 yards of water, fighting the current. Not a shot was fired from the far side. (See accompanying map.)

Company K's boats reached the far bank first, and as the first infantrymen scrambled ashore, a group of seven surprised Germans rose before them and promptly surrendered, even agreeing to row themselves unescorted across the river to captivity.

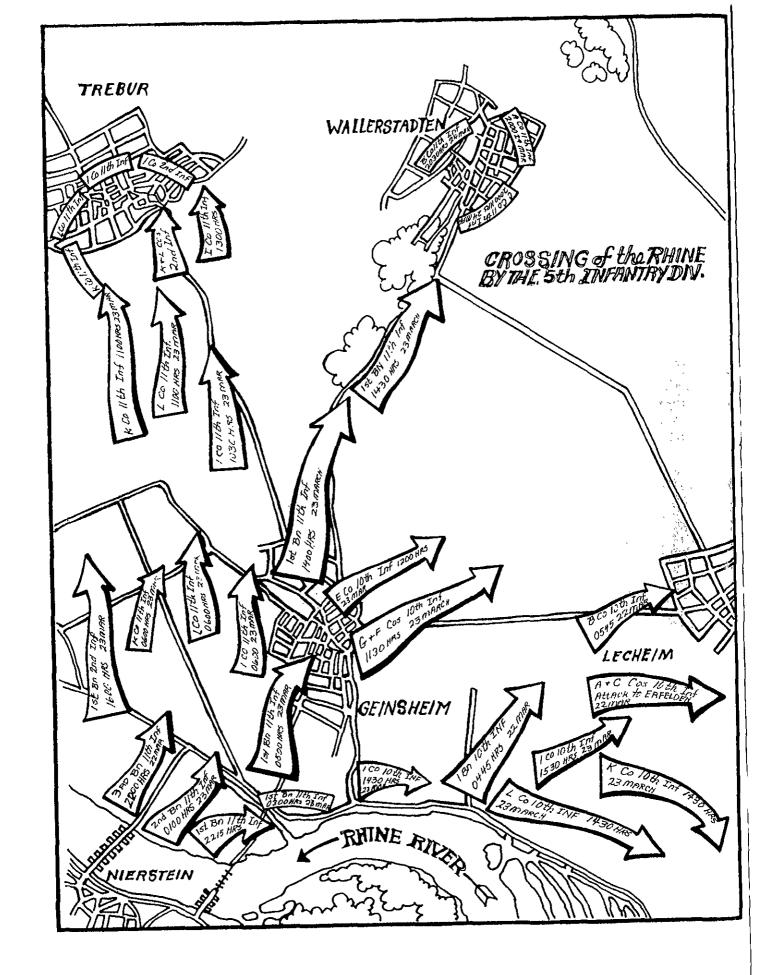
Company I was still crossing when heavy firing came from the right flank where the 1st Battalion's troops were crossing 700 yards downstream near Oppenheim. As the company's boats neared the east bank, its troops were also fired on, but the Germans were firing blindly, and the company suffered no casualties. But when Company L crossed minutes later, the German fire increased and several soldiers were hit.

Meanwhile, Companies A and B of the 1st Battalion were paddling into increasingly heavy machinegun and small arms fire in their sector. As their boats beached on the far shore and the troops scrambled ashore, German fire increased.

Company A met violent resistance in clearing out several buildings on its right flank. Twenty Germans were captured and 14 killed. By midnight, the entire 1st Battalion was across the Rhine, and the troops continued to clear pockets of resistance.

While the 1st Battalion was having trouble securing its sector of the bridgehead, the 3d Battalion tried to extend its sector about a thousand yards to the north. By midnight, too, the entire 3d Battalion had crossed over, with only Company L receiving heavy small arms fire during the crossing. Company K began clearing the left half of the 3d Battalion's river area while Company I moved south toward the 1st Battalion on its right flank. Company K sent two platoons north to secure the southern tip of a small airfield, which they did by 0400 hours.

Despite several small German counterattacks in the 3d



Battalion's sector, the 11th Combat Team began to take form as artillery liaison and forward observers crossed over. Troops of the 2d Battalion, who had been held in regimental reserve, began crossing shortly after midnight.

EXPLOITATION

At 0155, 23 March, the bridgehead was considered sufficiently secure, and the three battalions of the 10th Infantry began crossing near Oppenheim. Once across, they moved out immediately toward Leeheim on the southern flank of the bridgehead. Companies A and C of the 1st Battalion made contact at 0245 and moved eastward toward Erfeldon. Although Company C was fired on, the troops advanced with deadly marching fire, and soon most of the opposing Germans had been captured.

By 0655, the last battalion of the 10th Infantry was across, and as the two regiments fanned out in the bridgehead, U.S. Navy units brought up landing craft and put them in the river. Combat engineer battalions constructed four ferries and began building a treadway bridge. By 0700 hours, one ferry was working and the landing craft were scuttling back and forth across the river carrying supplies.

Meanwhile, with all but sporadic resistance broken in its sector, the 1st Battalion, 11th Infantry had continued moving inland toward Geinsheim, which was one of the division's primary objectives. It was still dark. The axis of advance was the main road leading to Geinsheim.

Heavy small arms fire flared as the assault companies advanced. Flares burst overhead, and these were followed almost immediately by heavy concentrations of German mortar fire. The shelling grew more intense as German artillery fire fell among the U.S. troops, forcing them off their course.

Caught in the open and unable to find cover or to advance in the face of the heavy German fire, the men in Companies A and B milled about and suffered a number of casualties. But they soon rallied behind their leaders and moved forward in a determined assault that scattered the resistance. Their advance proved timely, because moments later heavy concentrations of German shellfire fell in the area they had just left.

A little later, the German infantry counterattacked from Geinsheim. Company B caught most of the action, exchanging rifle fire, rifle grenades, hand grenades, and even bazooka fire with the Germans at close range. Supporting fires from the 19th Field Artillery Battalion helped the defense, and at 0400 the Germans broke off and withdrew.

Around 0530, the two companies resumed the attack on Geinsheim, following the retreating Germans who partially blew a canal bridge near the town while withdrawing. During this period, the German air force was active over the bridgehead. German planes dropped bombs along the river bank and attempted to strafe troops and installations, but were driven off by antiaircraft fire.

Company B's troops met intense resistance as they

neared Geinsheim. Small arms fire slowed their advance. Once again using marching fire, the Americans routed the German defenders along the canal, firing directly into their positions and sending them scurrying. As the Americans neared Geinsheim, they heard a welcome rumble. Supporting armor had crossed the Rhine and was rolling toward them.

At the same time, the 10th Infantry was expanding the bridgehead to the south, clearing several miles of the eastern bank and taking 73 prisoners while driving toward Erfeldon. The 2d Battalion pushed on toward Dornheim, which it cleared by 2030, and the 1st Battalion began passing through to attack Berhach.

Elsewhere in the 10th Infantry's area the 3d Battalion jumped off at 1300 in a southeasterly direction, and by 1630 Company L had cleared a pocket of resistance in the bend of the river formed by the Rhine's former and present courses. By this time, too, the 1st Battalion of the 2d Infantry had crossed the Rhine in landing craft piloted by the Navy, had passed through the bridgehead established by the 11th Infantry, and had continued the attack to the north, capturing the town of Astheim. Two hours later, its 3d Battalion had crossed and had moved toward Trebur to relieve the 3rd Battalion of the 11th Infantry.

Thirty-six hours after the initial crossings, the division's bridgehead was five miles deep and seven miles wide and, in addition to the three regiments of the 5th Division, held two regiments of the 90th Infantry Division, a tank destroyer battalion, a tank battalion, and numerous artillery battalions. Elements of the 6th Armored Division were also across. The Rhine bridgehead was a success.

Casualties had been lighter than expected. Heroism had been commonplace. Crossing the Rhine without artillery preparation or area reconnaissance had been a calculated gamble that paid off, largely through the efforts of the infantrymen of the 5th Division.

The most prized accolade for the division came from General Patton when he wrote in November 1945:

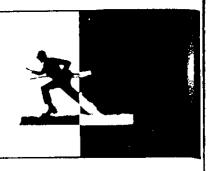
Throughout the whole advance across France you spearheaded the attack of your corps. You crossed so many rivers that I am persuaded many of you have web feet, and I know all of you have dauntless spirit.

Despite its hasty preparations, the 5th Division's crossing of the Rhine River turned out to be one of the smoothest river crossings the division had ever conducted.



WILLIAM COLON has been interested in military history since World War II, when he served with the 5th Infantry Division. He participated in three of the 5th Division's six assault river crossings, was wounded twice and was awarded the Combat Infantryman's Badge. He retired from the Department of Defense in 1979 after 33 years of military and civil service.

TRAINING NOTES



The Counterattack

CAPTAIN CHARLES S. HAFFENDEN

Although our doctrinal literature is filled with material on the subject, the counterattack is one of the most neglected aspects of defensive planning at the small unit level. It is difficult to pin down the reason for this. Perhaps it is because small unit leaders are not trained to think of the counterattack as being a decisive part of defensive combat. Or perhaps they do not realize that a counterattack is really an attack by fire or by fire and maneuver conducted in the course of defensive combat to destroy enemy units, to relieve pressure on an engaged unit, or to regain terrain so the coherence of the defense can be restored.

Counterattacks fall into two broad categories — deliberate and local — depending on the echelon at which they are conducted.

A deliberate counterattack is normally assigned to the reserve force of a brigade or higher unit. This force, usually of task force size or larger, has the combat power to conduct deliberate counterattacks and also the planning and command and control assets to carry out its attack with a good chance of success.

A local counterattack, on the other hand, is performed by a unit that is

committed to the defense — but not in reserve — within an area of responsibility and under the command of a single commander. In other words, a local counterattack is the job of a defending battalion, company, or platoon.

A unit leader should not regard counterattack planning as something separate and distinct from his defense planning. It is, in fact, a continuation of his defense planning that seeks eventually to use an offensive action to put more teeth in his defense.

Counterattacks, by definition, are attacks that have clearly defined, limited, and realistic objectives, and they must be planned as early as possible so that they will be as effective as possible. In addition, early planning can reduce the risks to the counterattacking force, it can ensure that the objectives will be consistent with the overall defensive concept, and it can mean that opportunities to execute the counterstroke will not be missed. A final advantage of early counterattack planning is that the leader can use the same factors and deductions from his analysis of METT (mission, enemy, terrain, and troops available) that he used during his estimate of the situation for the defense. For example, when comparing the possible courses of action to each other and to the enemy's most likely courses of action, the defending commander should try to answer the following questions:

- Do the objectives of the positions chosen for the counterattack force conform to the intent of the overall mission?
- Who is or will be available to conduct a counterattack? If there is no reserve available within the unit, who is most likely to be least committed to the fight and, therefore, best able to disengage and counterattack?
- What size enemy force can the available counterattack force take on successfully?
- How much time will it take for the counterattack force to move from its assigned location and engage the enemy once the order is given? What can the enemy do in that time?
- Knowing about how much time it will take for the counterattack force to move and engage, what is the latest possible moment at which the counterattack can be ordered and still have a good chance of succeeding?

The final counterattack plan should contain the same details as an attack plan. In brief, these include:



objectives, direction of attack, line of departure, assault positions, fire support and coordination, subunit missions, service support, and command and signal.

TWO CONCEPTS

Also implied in the definition of a counterattack are two very basic concepts of maneuver: a counterattack by fire, and a counterattack by fire and maneuver. The intent of the defensive mission determines which one will be used.

In a defense that is designed to destroy an enemy force, counterattacks by fire are probably best. In this concept, units maneuver to more advantageous positions from which they can place fire on the enemy. In most situations, this will be the most common form of local counterattack. Although counterattacks by fire can be used to relieve pressure on an engaged unit, they are not intended to regain terrain.

If the objective is to regain decisive terrain, counterattacks by fire and maneuver should be used, because with these a unit can close with and destroy an enemy force.

Once a counterattack plan is prepared, it should be rehearsed both in daylight and in darkness. If a rehearsal is not possible, a complete leaders' reconnaissance should be made.

Among the most difficult decisions a unit commander may have to make during a battle is whether and when to order a counterattack. At battalion level and lower, the unit commander should base this decision primarily on his own personal knowledge of the battle and only secondarily on reports he receives from his subordinates. He must decide whether the momentum of an enemy's attack has been spent to the extent that a counterattack has a reasonable chance of succeeding. The best indications that an enemy force has reached the limit of its advance are when it begins hasty defensive preparations and when there are

no follow-on enemy units in the area. The defending commander must also try to get as much intelligence as he can about the locations and expected arrival times of enemy reinforcements so that he will know how much time his counterattacking force will have to complete its mission before those enemy units reach the field.

A decisive element in the defense, therefore, is the advanced planning for offensive local counterattacks to exploit enemy weaknesses and vulnerabilities when they occur. This is what will enable a defending unit to seize the initiative, go over to the offensive, and defeat the enemy.

CAPTAIN CHARLES S. HAFFENDEN is a 1976 ROTC graduate of Vanderbilt University and has completed the Infantry Officer Advanced Course He has served as a rifle platoon leader, heavy mortar platoon leader, and battalion S1 with the 8th Infantry Division and is now a company commander in the 197th Infantry Brigade

Spot Reports

CAPTAIN RAYMOND W. LEVESQUE

Various sophisticated intelligence-gathering systems are finding their way onto the modern electronic battlefield. But these systems are of little direct value to the battalion commander; he can only hope that the information they generate will be passed down to him when he asks for it. Unfortunately, though, in a fast-moving battle such information will usually arrive too late to be of much use to him in his tactical decision-making.

Today's commander must rely, essentially, on spot reports from the same intelligence-gathering sources his predecessor in World War II had — his front line troops and attachments, his scout platoon, and his fire support officer (FSO) — with some help, perhaps, from some attached ground surveillance radars (GSR) from the division's Combat Electronic Warfare Intelligence (CEWI) battalion.

The most important of these sources to the battalion commander (or the commander at any level), and the most often overlooked, is the front line soldiers. They, better than anyone else, can supply the commander with accurate and timely information on the location and activity of the enemy in all kinds of weather.

These soldiers must be trained to provide accurate, continuous spot reports to the chain of command on their contact, or lack of contact, with enemy forces during the course of their assigned mission.

Many units teach soldiers the SALUTE format as a basis for sending spot reports — size, activity, location, uniform, time, and equip-



ment. Although this method is well suited for reminding a soldier of the information he should report after a patrol, it is not the best one to use in sending concise radio reports.

A more efficient format, which can be used to supplement SALUTE and to speed the processing of spot reports, is SEAL (size, equipment, activity, and location). A spot report based on this format conveys the necessary information briefly and in the proper order — for example, "two T62s moving west, vicinity PK 347293." (Time is not included because at company level the time is immediate, and the battalion S2 can affix the time when he receives the report. The time is noted, though, when there is a delay between sighting and reporting the enemy.)

Activity is a very important but often overlooked part of the spot report. It cannot be assumed that if no activity is reported the enemy is doing nothing. To the company commander or the platoon leader, it may be obvious that the enemy tanks are stationary. But to a battalion commander, who may be in another company's sector, or to the S2 in the TOC it will not be. For these reasons, the disposition of the enemy tanks must be noted.

If activity of any kind goes unreported, the information, or lack of it, can easily be misinterpreted. If Company A reports three T62s moving at location X without giving their direction, and Company B reports three T62s at location Y, the S2 may plot two enemy platoons on his map where only one exists.

Above all, spot reports must be sent immediately. When dealing with actions at battalion level, the commander must know immediately what is to his front.

The other important sources of intelligence for a battalion commander are his scout platoon and his FSO. The scout platoon is especially important in an armor battalion where there are no attached infantry units. The platoon is responsible for locating the enemy and for forwarding reports, and it is the only unit in the battalion whose primary function is to gather information.

The battalion FSO is always available to the battalion staff, and he can provide a wealth of information to the S2. Although a company commander may forget to send a spot

report, he will invariably call for fire when he sees the enemy.

The FSO will become even more important as TACFIRE gets to the units. With TACFIRE, the S2 can step into the FSO's M577 and get an accurate printout showing the locations and types of targets that have been fired upon. Such information is invaluable because it shows trends in enemy movement and may fill the gaps in skimpy spot reports.

If the individual soldiers in the front lines are trained to use their eyes and ears properly and to send accurate, complete, and timely spot reports, this vital information will be available to those who need it.

A commander is not likely to lose a battle because of too much information, but he may lose it because of too little.

CAPTAIN RAYMOND W. LEVESOUE recently completed an assignment as editor of Military In telligence magazine and is now attending the Defense Language Institute in preparation for an assignment in Panama. He is a 1978 ROTC graduate of the University of Arizona and has at tended the Tactical Intelligence Officer Course and the Tactical Surveillance Officer Course

CAMMS

LIEUTENANT COLONEL WILLIAM L. HOWARD

The Computer Assisted Map Maneuver Simulation (CAMMS) system has proved to be one of the best methods of training battalion and brigade staffs in the Army, especially those in the Reserve Components.

The Army has used map maneuvers in training for some time, but before the advent of computers the work had to be done manually, which took a lot of people and a lot of time. Controllers and reactors were needed to feed canned messages to the unit that was playing; then they had to wait around while the unit went through its staff actions, planned some course of action, and issued its orders. The reactors who represented subordinate units would then respond, usually from a playbook. In some of the high level and more sophisticated map maneuvers, more people had to be employed to derive relative combat

power figures and to roll dice to determine a random number and the outcome of the battle. Often some of these people were eliminated to save money, and then realism was lost.

The introduction of the computer, with its ability to perform complex mathematical operations at high speeds and to store and retrieve data, has reduced the number of people and the amount of time needed to conduct a map maneuver and, at the same time, has increased realism. Usually, a main computer is tied into the training area by telephone lines and remote terminals. The computer has several programs, including some that do mathematical calculations and others that simply update a data base.

The CAMMS system is most effective when used in a multi-battalion exercise. Such an exercise requires a large room to serve as a control and main battle area, separate rooms for each group of company commanders, and a room for each battalion staff.

In the main control area a large scale map is set up, and unit markers are placed on it to represent enemy and friendly forces. These markers all have a computer code that identifies the type of unit, its organization, and its equipment. These units are moved by table controllers who also serve as platoon leaders. Connected with their company commanders by telephone lines, they report the condition on the map board. The company commanders, in turn, are linked to their battalions by radio, while the battalions are linked to their brigade headquarters, which is usually controlling the exercise, by telephone. The brigade headquarters is best situated next to the map so that the



Given the computer hook-up, CAMMS can be played on any large-scale map.

staff can compare what is actually happening on the ground with what is being reported. In this way the brigade can determine problem areas in its subordinate units.

Once the system has been set up and the player personnel are in position, the map maneuver begins. It is usually determined in advance whether the battalions will be attacking or defending. A brigade level order is issued and the battalion staffs perform their functions.

As the staffs and commanders complete their estimates and issue orders, subordinate units move their unit markers on the control boards. Enemy units also begin their movement in accordance with published OPFOR doctrine. As the leading elements close with each other, the table controllers decide when they are in range of each other and begin the conflict by entering the unit computer codes and other pertinent factors, including terrain and weather, into the computer. The computer program moves the information through a series of mathematical equations and determines the outcome of the conflict. Casualties are assessed and situation reports are generated and given back to the table controllers. In addition to giving spot reports to player units, the computer can call up an administration and logistics data base for both sides and subtract losses from that base. Unless the unit S1s and S4s take action to replace the losses, their units will very quickly run out of ammunition, fuel, people, and equipment.

Realism is most apparent at the battalion level where most of the work done by the staff is based either on reports from the field or on orders from above. But the computer does not make any decisions for the commander, nor does it do the work of the staff officer. It simply eliminates the requirement for a large number of people who might be considered little more than clerks and mathematicians.

The major disadvantage of the manual map maneuver lay in the fact that when the writing staff got tired and stopped writing messages the exercise usually came to an abrupt end. Besides, there was no way that a writing staff could accurately forecast a unit's reaction to any given event.

With CAMMS, these problems have been solved, because the exercise is self-sustaining. Once the units are given the initial order, it is up to them

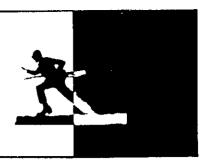
to plan and to move. As friendly and enemy units come in contact and fight, the computer generates the messages, the staffs respond, and the situation can be influenced in many ways. These variations make the exercise more flexible since there is no p-proved solution, only what is actually happening on the board.

The main benefit CAMMS offers to Reserve Component units is an opportunity for their commanders and staff officers to conduct realistic combat operations within the confines of their armories, to see the results of their planning, and to work closely together. It has also increased the units' awareness of the capabilities and limitations of Soviet weapons and equipment as well as their own.



LIEUTENANT COLONEL WILLIAM L. HOWARD is a 1964 ROTC graduate of the Citadel and has completed the Command and General Staff College He has served as a Technical Intelligence Team leader in Vietnam and in numirous assignments with Le 100th Division (USAR)

ENLISTED Career notes



PERSONNEL CHANGES

Several key positions within the Infantry/Armor Branch have changed hands recently. First, LTC Richard C. Pahland has replaced LTC Tommy F. Grier, Jr., as Branch Chief. In ad lition, MSG Tyrone D. Haigh has taken MSG Jerry L. Rock's job as Senior Infantry Career Advisor; SFC Robert J. Hayes, Jr. and SFC William Crabill have replaced SFC Roger L. Miller and SFC William A. Riggins as Professional Development NCOs; and SSG(P) Gregory V. White has taken SFC Michael Engle's place as ANCOC Manager.

CHECKING OMPFs

It is not necessary for a soldier to review his Official Military Personnel Fire (OMPF) every time he gets an EER or a letter of appreciation, or even every year, for that matter. Although virtually thousands of OMPF transactions are made each year, there may be little change in the average file. But a soldier should review his OMPF when he becomes aware that his records are to appear before a Department of the Army selection board (at least 120 days before the board is scheduled to convene) or whenever there has been a material change to his records, such as one directed by the Army Board for the Correction of Military Records or the Department of the Army Suitability Evaluation Board.

Any soldier who wants to review his OMPF should write to Commander, U.S. Army Enlisted Records and Evaluation Center, ATTN: PCRE-RF-I, Fort Benjamin Harr son, IN 46249. Only written requests, complete with name, social security account number, and the address to which the microfiche copy is to be mailed, will be honored. There is no charge for this service.

DA FORM 2-1

Under the provisions of Paragraph 5-3, AR 640-2-1, Military Personnel Offices must prepare and forward to the Infantry/Armor Career Branch a complete copy of DA Form 2-1 for each Infantry soldier in the ranks of staff sergeant and platoon sergeant. This is done upon completion of the soldier's annual records review, which is accomplished during his birth month.

The current DA Form 2-1 is the primary tool assignment managers and career advisors use to make assignments that best meet a soldier's career needs and preferences and also the needs of the Army. It contains information on that soldier that exists nowhere else, such as, his

- Assignment history.
- Previous duty positions.
- Military and civilian schools attended,
 - Current height and weight.
 - Aptitude area test scores.
 - Overseas tours completed.
 - Assignment limitations.
 - Location of dependents.
 - · Awards and decorations.
- Additional Skill Identifiers and Skill Qualification Identifiers.

Soldiers and MILPOs alike can help see that assignments are made on the basis of current information by forwarding their updated DA Forms 2-1 to MILPERCEN.

CORRESPONDENCE

receives a lot of correspondence every for.

day from MILPOs and individual soldiers. Much of this correspondence is addressed incorrectly or does not provide enough information.

Each piece of correspondence should include at least the soldier's Social Security number, his complete name, and his five-digit MOS code.

The correct address of Infantry/Armor Branch is:

DA, MILPERCEN ATTN: DAPC-EPK-I 2461 Eisenhower Avenue Alexandria, VA 22331

ENLISTED PREFERENCE STATEMENT

Each soldier must submit an Enlisted Preference Statement (DA Form 2635) to his career branch within 30 days after his promotion to staff sergeant. AR 614-200, which requires this submission, also provides for the voluntary submission of a statement at any time following promotion to staff sergeant when an item of information on the previous form

This form contains information on the soldier that is not available on other forms in his file, such as:

- His preference on duty position (troops, staff, instructor, ROTC, ARMR, Full Time Manning, first sergeant).
- The service schools he would like to attend (Drill Sergeant, Recruiter, First Sergeants Course).
- His unique assignment considerations (Joint domicile, sole parent, special dependent care requirements).
- The number and ages of his dependents.
 - His typing ability.
- Remarks concerning specific The Infantry/Armor Branch assignments he wants and is qualified

Even though preferences are the primary subject of conversation between soldiers and their career managers, the preference statements now in their Career Management Individual Files (CMIF) range in age from one to nine years.

It is important, therefore, for each soldier to influence his own assignment process by making sure a current DA Form 2635 is on file with his branch. Every item of information on the form helps his assignment manager and career advisors to provide him with one of his first three

choices of assignment, and it does so before the assignment process begins rather than after, which is very important. It helps, too, if one of an Infantryman's first three choices is a command with a large Infantry population where more soldiers in different ranks and with different Infantry MOSs are needed.

Each soldier should route his completed and signed preference statement through his PAC and MILPO so that his assignment preferences can be recorded on his DA Form 2 and on his Enlisted Master File as well. In

this way every assignment consideration related to him can be reviewed in conjunction with his DA Form 2-1 Personnel Qualification Record and OMPF microfiche. The result should be the best match of his preferences and the Army's needs.

Although files on soldiers in the first five pay grades are not maintained at MILPERCEN, their preferences are available through each Enlisted Master File, which is updated when the soldier screens and updates his DA Form 2.

RESERVE COMPONENT NOTES

More than 6,500 ROTC cadets are now taking part in the Simultaneous Membership Program (SMP), which means that they are also members of Army National Guard or Army Reserve units. But there still seems to be some confusion about the rules of this program.

Under the SMP, high school students may enlist as potential SMP participants in Guard or Reserve units and attend basic training during the summer. Enlisted soldiers who are already assigned to selected Reserve units may qualify for simultaneous membership if they have four or more years remaining on their enlistments. The SMP is also open to college students with or without prior military service.

SMP enlistees may be eligible for the ROTC Advanced Course as early as their freshman year in college. After enrolling in Advanced ROTC, the cadets receive drill pay from their Reserve Component units in the rank of sergeant (unless they have reached a higher grade) in addition to the \$100 monthly subsistence allowance they are entitled to as Advanced Course cadets.

When they have completed Advanced ROTC, these cadets can receive early commissions and serve as second lieutenants in their Guard or Reserve units while completing

their degrees. After graduation, they are slated for either Active or Reserve Component duty, depending upon the needs of the Army.

Some participants mistakenly believe they are guaranteed duty with selected Reserve units for the entire term of their military obligations. But, as Total Army assets, they are assigned accordingly, unless they have Guaranteed Reserve Forces Duty (GRFD) contracts.

Another relatively common but incorrect assumption about GRFD contracts is that they can be broken. Cadets who have these contracts are never involuntarily ordered to active duty, but they can volunteer for active services and thus void their contracts.

SMP members also report some confusion about how to credit their enlisted duty toward their overall length of service.

Once they have been commissioned, SMP participants cannot count as creditable service the enlisted duty in Reserve Component units they performed while they were Advanced Course cadets. But if they remain in an enlisted status (are not commissioned) after they complete the ROTC Advanced Course, that time is creditable. Of course, those who are commissioned get to count the time they spent in commissioned

status for pay purposes. Whether SMP members are commissioned or not, their enlisted duty before they entered the Advanced Course can be counted when computing length of service.

Reserve Component unit commanders also frequently have questions about the program, specifically, how to manage SMP cadets.

SMP participants should be treated as officer trainees and should be given duties normally required of second lieutenants, with individual training plans developed for each of them. While it is expected that they will also be exposed to the full range of duties performed by lower-ranking enlisted soldiers, the emphasis should be on their development as officers. Counseling and instruction in the leadership roles of officers is considered a major part of their training.

SMP members may attend both their unit's Annual Training and ROTC Advanced Camp during the same summer, but if the dates for the two conflict, the cadet must go to the Advanced Camp.

The intent of the program is to have SMP cadets commissioned early so they can serve as officers in Reserve Component Units while finishing their degrees. This means that it is especially important for their units to train them properly.

OFFICERS CAREER NOTES



BRANCH CHIEF'S NOTES

As we travel around the world visiting Infantrymen, and as you visit us at Infantry Branch, we always seem to be working on ORBs, forms, and records. That will never change, breause we will always be responsive to your needs, and you must be vitally concerned also.

The key people in this process are you, your commander, and your servicing Military Personnel Office. You should always review your Officer Record Brief (ORB) for accaracy. Don't wait for the annual audit to know what is printed on it. The other important record is your P-fiche (performance fiche). Your ORB and your "fiche" are the two documents that appear before promotion and selection boards. Do not wait until a week before your board convenes to tell your MILPO that there is some erroneous data in your records. It will be too late. Remember also that your "fiche" contains your official photograph, and you should make sure it is accurate and up to date.

The series of articles that follows may be helpful. First, there is a schedule of branch advanced courses. Commanders can help us identify outstanding Infantrymen to represent the Infantry community at the other branch schools by making an entry on their OERs, or by calling or writing Branch with a recommendation.

A second article discusses the preference statement, which many refer to as the "dream sheet." I can assure you, though, that each statement is reviewed upon receipt by your assignment officer, and your preferences are entered on the left-hand side of your paper CMIF. It is also used by your assignment/professional development officer in making

your Infantry assignments.

Those of you who have been selected for promotion by recent boards will be managed in your promotable grade, and it is time for you to let us know your goals and objectives, both short and long term, so we can work with you. You should keep abreast of such personnel developments as the regimental system, combat arms detail, promotion by specialty, and promotion by floors. In fact, these would make excellent topics for officer classes or commander's calls.

If you are involved in a PCS move to or from overseas assignments or to schools this summer, take the opportunity to stop by Branch and discuss with your assignment officer the major things you want us to consider as we begin the assignment process. We can also discuss what you should try to accomplish during your upcoming three-year tour. Finally, you should read our 1982 Infantry Branch Newsletter for professional development considerations.

COL JAMES A. SULLIVAN

KEEPING RECORDS

Each year as the promotion and selection boards prepare to convene, concerned officers rush to get their records in order. Invariably there is a great deal of confusion regarding what should be in these records and how it should get there. It is important, therefore, for each officer to understand his personnel records and what he needs to do to keep them up to date.

These records include:

• Field 201 File — Military Personnel Records Jacket (MPRJ). Maintained by the local MILPO and

used by the unit personnel office.

- Career Management Information File (CMIF). Maintained for personnel actions by Infantry Branch and used for assignment and professional development.
- Official Military Personnel File (OMPF). Maintained in MILPER-CEN by the Records Services Branch, PERSINSD, and used by promotion and selection boards.

Two items found in both the CMIF and the OMPF — the officer record brief (ORB) and the microfiche — are critical to both assignment and promotion functions.

An officer's ORB includes several items that he should check periodically to be sure they are up to date: Civilian and military education levels, assignments, and physicals (height and weight).

An officer should go to his MILPO to review his ORB yearly during his birth month, and he should correct any discrepancies through the MILPO.

The other important item in the files, the microfiche, has two parts, a performance fiche and a service fiche, and sometimes a third one as well, called the restricted fiche, with the following contents and uses.

- The performance fiche contains an official photograph, evaluation reports, awards, decorations, letters of commendation, Article 15s, courts martial, letters of reprimand, course completion certificates, and college transcripts. It is used by selection boards, career managers, and the Army Board for Correction of Military Records (ABCMR), and for other personnel actions.
- The service fiche contains the accession package, promotion orders, extension of service agreements, RA appointments, and other data required for service computation. It is

used by career managers, by the ABCMR, and for service computation. It is not normally seen by selection boards.

• The restricted fiche contains denied OER appeals, courts martial with no finding of guilty, wholly-set-aside courts martial or Article 15s, and ABCMR case documents. It is seen only by the individual concerned and the ABCMR. It is not released to selection boards or other agencies without special permission or a written request from the individual concerned.

The photograph in the performance fiche is especially important. A photograph is required within 60 days of promotion to first lieutenant and every four years thereafter (every three years for colonels). It should be noted that boots are not authorized for wear when the official photo is made (see AR 640-30 for details).

The OMPF also needs to be checked, and an officer need not make a special trip to MILPERCEN to do so. He can obtain a free copy of his microfiche and his most current ORB by writing: DA, MILPERCEN, ATTN: DAPC-POR-RS, 200 Stovall Street, Alexandria, VA 22332.

Officers are encouraged to visit their MILPOs and to submit changes through their personnel officers. Anyone who encounters difficulty in getting items on his record corrected should forward his request along with substantiation to Infantry Branch, and we will assist him.

Any officer who wants to visit MILPERCEN instead to review his records should call the Records Service Branch (AUTOVON 221-9618, Commercial 202/325-9618) 72 hours before his visit so that his official file will be available. No appointment is necessary for the visit itself.

TELEPHONE DIRECTORY

An internal reorganization of telephone lines occurred recently in Infantry Branch. To ensure that you reach the appropriate assignment section and to avoid unnecessary delays,

please use the following numbers when calling your assignment officer.

Branch Chief	AV221-0207/0208/7823
LTC SC11/Command	0209/0317/7823
LTC Other Specialty/I	ROTC 7823/0209
LTC SC 54	0317/0318/0207
CPT & MAJ SC 54	0317/0318
MAJ SC 11	0318/7823
MAJ Other Specialty	0317/7823
CPT O/S Advance Co	urs e 0207/0209
CPT Other Specialty	0207/0208
CPT CONUS Nomina	tive 0207/0208/0209
LT SC11	0207/0209
LTs Accessions	0208/0209
Branch Representative	AV 835-3611/4381
Ft Benning	

Each assignment cell's telephone lines are on a rotary system. Therefore, if you get a busy signal, wait a few minutes and try again, because all lines to that cell are being used at that time.

OFFICER ADVANCED COURSES

The schedule for the combat arms officer advanced courses for Fiscal Year 1983 are listed here along with an address and point of contact for each course. Fifteen Infantry officers will attend each of the Armor Officer Advanced Course classes, six will attend each of the Field Artillery classes, and one will attend each of the Engineer classes. In addition to these, two Infantry officers normally attend the Marine Corps' Amphibious Warfare Course at Quantico, Virginia, which begins each year in August.

The selection of an officer to attend any of these courses is made on the basis of his potential for promotion and of the date he will be available for reassignment. An officer is eligible to attend an advanced course any time between his third and eighth years of active duty. He usually attends after his initial assignment and before he is assigned to command, but it is not unusual for an officer to have commanded before he attends the course.

Each officer should receive his request for orders (RFO) four to six months before his class begins. Enclosed with the RFO will be an advanced assignment packet, which is

vital in making the officer's next assignment. Each officer is notified of his next assignment by letter about two months before his advanced course begins.

Officers of branches other than Field Artillery must report for the Artillery course three weeks before the start dates shown so that they can attend an intensive course in gunnery techniques. The report date for each of the other courses is ahout four days before the class begins.

IOAC				
Class	Start	Completion		
No.	Date	Date		
83-1	31 Oct 82	24 May 83		
83-2	23 Jan 83	28 Jul 83		
83-3	10 Apr 83	13 Oct 83		
83-4	5 Jun 83	12 Dec 83		
83-5	7 Aug 83	28 Feb 84		

U.S. Army Infantry School Fort Benning, GA 31905 AV: 835-3611/7359 (CPT Mick Bednarek)

	AOAC	
Class	Start	Completion
Number	Date	Date
83-1	7 Oct 82	3 May 83
83-2	11 Jan 83	15 Jul 83
83-3	12 Apr 83	14 Oct 83
83-4	26 Jul 83	17 Feb 84

U.S. Army Armor School Fort Knox, KY 40121 AV: 464-6329/5045 (CPT Joe Tombrello)

FAOAC					
Class	Start	Completion			
Number	Date	Date			
83-1	11 Oct 82	5 May 83			
83-2	24 Jan 83	28 Jul 83			
83-3	17 Apr 83	20 Oct 83			
83-4	14 Jul 83	9 Feb 84			

U.S. Army Field Artillery School Fort Sill, OK 73503 AV: 639-2951 (CPT Danny Walling)

	EOAC	
Class	Start	Completion
Number	Date	Date
83-1	18 Oct 82	10 May 83
83-2	22 Nov 82	14 Jun 83
83-3	24 Jan 83	28 Jul 83
83-4	14 Mar 83	15 Sep 83
83-5	23 May 83	30 Nov 83
83-6	27 Jun 83	19 Jan 84
83-7	8 Aug 83	1 Mar 84

U.S. Army Engineer School Fort Belvoir, VA 22060 AV: 354-2184/1048 (LT Christine Lee)

OFFICER PREFERENCE STATEMENT

An officer's preference statement is his most important link with his assignment officer, and he reduces his chances of going where he wants to go if he fails to get a current preference statement in his file.

A current and detailed preference statement tells the assignment officer immediately what the officer wants to do (professional and personal considerations), what position he now holds, how to get in touch with him (home and duty telephone), and something about his family (personal data). It is hard to believe that any officer would want his assignment officer to make a decision without this information.

The reverse side of the preference statement explains how to fill out the form, but here are a few additional tips:

Under the section entitled "Macom/Activity/Location," an officer should list as many locations as he prefers. He should not limit his selection to three locations just because three spaces are provided on the form. This is particularly important if his first three choices are Forts Carson, Lewis, and Ord. This is not to say he shouldn't request these locations, but he should understand that most infantry majors also request them and that he needs to give the assignment officer more flexibility in making his assignment.

Under the section entitled "Duty Assignment," Army priority assignment choices (ARR, ROTC, USMA, and DA Staff) should be included. By not indicating any preference with respect to these assignments an officer may be avoiding reality. If it is his turn for an Army priority assignment and he has failed to state a preference, he may be assigned to one without regard to his desires.

Career aspirations should be listed under the section called "Professional Development Comments." For example, if a major is interested in battalion command, he should request assignments that will improve his chances and include any comments that he feels are pertinent to managing his career.

Under "Personal Considerations," any personal problems he may have should be listed; for example, if an officer has a legitimate personal hardship, he should request a compassionate assignment in accordance with AR 614-100, or apply for assignment consideration under the Handicapped Dependents Program.

As a general rule, an officer who wants an overseas tour should see that his preference statement reaches MILPERCEN nine months before the desired report date and, for a CONUS assignment, six months before the report date.

Otherwise, the suggested times for submitting the statement are:

- When the Personnel Qualification Record (DA Form 2-1) is initially prepared.
- About 9 to 12 months before completion of an overseas tour or a stabilized tour within CONUS.
- About one year after reporting to a CONUS station on a non-stabilized tour.
- Within 60 days before beginning a course of instruction at a CONUS PCS service school, a civilian institution, or training with industry.
- Nine months before completion of an initial utilization tour and at any time thereafter when preferences change for a commissioned officer who has received his graduate degree through a full-time Army program that requires a utilization tour.

Officers who have obtained their degrees from other sources (on their own or before commissioning) are also invited to indicate such preferences. After studying DA Pamphlet 600-3 (Officer Professional Development and Utilization), the officer should specify in Item 12 of the Officers Assignment Preference Statement where re-utilization tours are desired. This statement will include the type of assignment he prefers (for example, laboratory assistant, procurement, R and D staff officer) and, if he knows them, the agencies or headquarters to which he wants to be

assigned periodically throughout his remaining years of service.

Each officer should keep a copy of his most recent preference statement to make sure he can recall what the last preferences he forwarded to MILPERCEN were.

Infantry officers should forward their preference statements to HQDA, DAPC-OPE-I, Alexandria, VA 22332.

LAW SCHOOL CANDIDATES

The Office of the Judge Advocate General (OTJAG) is now accepting applications for the funded legal education program. Under the program the Army may send up to 25 Active Duty commissioned officers to law school at Government expense. The officers selected will remain on active duty while attending law school.

Officers who are interested should review AR 351-22 (The Judge Advocate General Funded Legal Education Program) to determine their eligibility. The program is open to officers in the ranks of second lieutenant to captain with at least two but not more than six years of service at the time the legal training is scheduled to begin.

Anyone who is interested and eligible should immediately register for the June or October offering of the Law School Admission Test (LSAT) and follow the application procedures in the governing regulations. Completed applications must be sent through command channels to arrive at OTJAG not later than 1 November.

CAPTAINS TO EUROPE AND PANAMA

The Army National Guard (ARNG) Captains to Europe Program, which offers extended active duty tours in Europe to ARNG captains, was recently expanded to include tours in Panama as well.

The program gives ARNG captains

Officer Notes

valuable training experience with the 44 Active Army and also an opportunity to support the Active Army with their knowledge and expertise. In addition, the Guard will benefit from the experience these captains bring back to their states.

> Qualified applicants are selected on a "first come, first served" basis. There are now 122 ARNG captains from 36 different states on tour in Europe, but there are still positions to be filled. European tours vary from 20 to 30 months in length and will not be extended. This policy gives more personnel the opportunity to participate.

> To be eligible for a tour in Europe, a captain must have less than four years in grade, at least one year of ARNG unit experience before applying, and qualification in one of the following specialties: 11-15, 25, 48,

49, 52, 53, 71-74, 91, 95, or 97. If possible, he also should have completed the advanced course and have a baccalaureate degree.

The selected captains will be assigned to brigades, battalions, or companies and will perform duties commensurate with their grade and specialties.

There are now seven available tours in Panama, four in Special Forces and three for foreign area officers (Latin American), varying from 24 to 30 months in length.

Those who are selected for tours in Panama must be qualified in one of these two specialty areas and must have less than four years in the grade of captain. They must also have had at least two years of ARNG unit experience immediately preceeding the submission of the application.

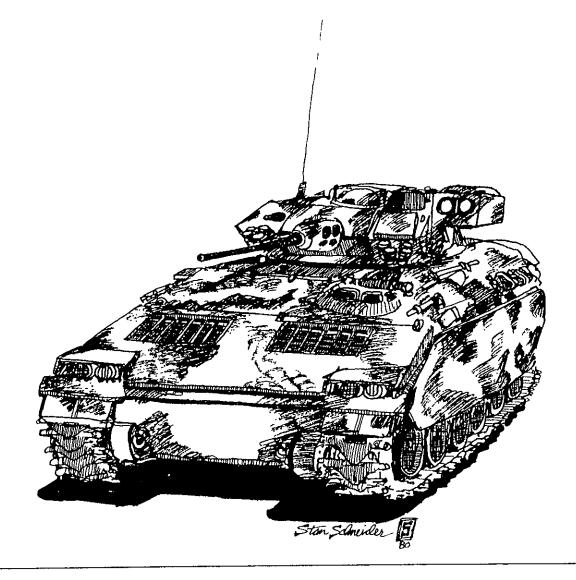
First lieutenants who are eligible

for promotion to captain before their entry on active duty may also apply for tours in either location.

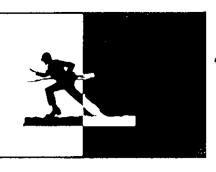
Since none of these tours will be extended, the National Guard Bureau will continue to accept applications even after the positions now vacant are filled. The program is a continuing one and will be offered to as many Guard personnel as possible

CLARIFICATION ON CGSC

The item in INFANTRY's March-April 1982 issue on a change of policy concerning CAS³ and CGSC equivalency for Reserve officers was premature. Action on the announced change to AR 135-155 has been postponed and may not be implemented before 1984.



BOOK REVIEWS



The Battery Press of Nashville, Tennessee, is planning to reprint our two Vietnam cra books — INFANTRY IN VIETNAM and A DISTANT CHALLENGE. We published the first of these in 1967, the second in 1971. The Press expects to bring out INFANTRY IN VIETNAM this September and A DISTANT CHALLENGE early in 1983. We will let you know more of the details in our coming issues.

We continue to receive many fine books. Here are several we recommend highly:

• ROYAL UNITED SERVICES INSTITUTE AND BRASSEY'S DEFENCE YEARBOOK, 1982 (Pergamon Press, 1982. 379 Pages. \$25.00, Paperbound). This exceptional handbook on military affairs, in its 92d year of publication, contains a number of articles of particular interest to today's infantryman. The two by Ian V. Hogg should be read. One of these is on weapon developments, the other on infantry support and fighting vehicles.

Hogg doubts that the selection of 5.56mm as the NATO standard caliber is a good thing. He feels this decision was nothing more than answering "the siren call of technological wizardry which seems to have more appeal than cold tactical sense." He also believes that "present-day attitudes seem to favor seizing on a novel weapon and bending the Army's tactics to suit, rather than deciding what the tactics are to be and then bending the technology to fit the perceived task."

Hogg expresses an equally strong view about the current generation of infantry fighting vehicles. The last paragraph in his piece on vehicles is worth quoting:

"Looking around the world's

APC/MICV scene at the moment, one thing seems to be apparent, and that is the paralysis in infantry thinking which has been brought on by the advent of mechanization. Unless and until the infantry makes the basic decisions on what size the infantry squad is to be, how they are to be used in conjunction with armor and what their tactical role is to be, then there is no hope of producing a satisfactory vehicle to carry them in their chosen role. Every MICV so far seen (in the West at any rate) seems to exhibit far too many elements of compromise. If only somebody, somewhere, would bang on his desk and say 'This is how my infantry will operate, this is how they will be armed and this is how they will be transported ...', then we might get an answer. It might not necessarily be quite the right answer, but it will be a good deal more right than some of the suggestions presently being touted."

• HOW TO MAKE WAR: A COMPREHENSIVE GUIDE TO MODERN WARFARE, by James F. Dunnigan (Morrow, 1982, 442 Pages. \$14.50). This book represents a lighthearted and simplistic approach to war, to the people who fight wars, and to the results one can expect from them. Well known for his work in historical simulations, the author uses his facile pen to paint war as some sort of huge game, played by the notso-bright for the most obscure reasons. Would you like to be a general? You can, the author believes, if you read his book. Would that the real world could be handled so easily!

• THE EISENHOWER DIARIES, edited and introduced by Robert H. Ferrell (Norton, 1981, 445 Pages, \$19.95). Off and on from 1935 to ear-

ly 1967 the late President and former supreme Allied commander in Europe during World War II kept a personal diary. Many of the entries are intensely personal, others are factual accounts of particular happenings. Together, the entries give us another view of the man sometimes regarded as simple-minded and shallow in his thinking. They show Dwight Eisenhower to have been ambitious, shrewd, intelligent, and moral. The editor, a professor of history at Indiana University, has added introductory sections where needed and a host of explanatory notes.

• THE HISTORY OF AMERI-CAN WARS FROM 1745 TO 1918. by T. Harry Williams (Knopf, 1981. 439 Pages. \$20.00). T. Harry Williams, who died in 1979 before he could complete his planned volume on all of America's wars, was a great classroom instructor at Louisiana State University from 1941 until his retirement just months before he died. This book, which would have been only a portion of the one that was planned, rings with his classroom presence -- sharp-tongued, quickwitted, imposing (even though he, himself, was a slight man). What Williams does here amply fulfills much of his stated objective: to write "an account of our wars from the colonial period to Vietnam, comprehensive enough to give a wellrounded picture, it is hoped, and yet succinct enough to fit into a single volume." This is a good, modern introduction to our early wars, and could certainly serve as a textbook for an introductory military history course.

• SECRETARIES OF WAR AND SECRETARIES OF THE ARMY: PORTRAITS AND BIOGRAPHI- CAL SKETCHES, by William Gardner Bell (Center of Military History, United States Army, 1982, 176 Pages. \$12.00). Although this book has had a long gestation period, it has been worth the wait. This is the first time any book has ever cataloged all of the Army's secretaries and recorded their contributions. It also traces the development of the particular office from the Revolutionary era to the present, and gives the location of the Army's headquarters from Fraunces Tavern in New York City to the Pentagon. Each of the one-page personality sketches is accompanied by either a full-color portrait or photograph and an accompanying note on the artist or photographer. The author is a former editor of AR-MOR magazine, a man of excellent taste, and a member of the Army's military history office for some 25 years. He is now preparing a similar volume on the Army's military leaders.

 MODERN AMERICAN AR-MOR: COMBAT VEHICLES OF THE UNITED STATES ARMY TO-DAY, by Steven J. Zaloga and James W. Loop (Stackpole Books, 1982, 88 Pages.). This is an excellent reference book, one that includes not only numerous photographs but detailed line drawings of the main types of vehicles as well. One of the book's strong points is its use of solid historical data to trace the development of many of the Army's present day vehicles, and the authors' willingness to go back in time to discuss such earlier vehicles as the M26 Pershing, the M75 and M59 armored personnel carriers, and the M67 mechanized flame thrower.

• MONTY: THE MAKING OF A GENERAL (1887-1942), by Nigel Hamilton (McGraw-Hill, 1981. 864 Pages. \$22.95). The dust jacket proclaims this book to be the definitive study of Bernard Law Montgomery's early life and military career through the battle of Alamein. Unfortunately, it is not definitive, but it is definitely detailed. The main subject never comes into clear focus, because the author never lets us really see the man

about whom he is writing. In fact, he spends so much time "whitewashing" Montgomery's warts that he ends up doing Montgomery a great disservice. Montgomery was one of England's great wartime battlefield commanders; he was also an outstanding trainer of troops, perhaps the best that England has ever developed. He knew the British soldier better than most of his contemporaries did and he gave those soldiers the kind of leadership they wanted and needed. But he was an extremely controversial military man, and it is doubtful that he deserves all of the accolades Hamilton heaps on him. The subject deserved better at the hands of the author, and one can only hope that Hamilton's future volumes on Montgomery will be better done.

Now, here are some of our longer reviews:

THE PAPERS OF GEORGE CATLETT MARSHALL: "THE SOLDIERLY SPIRIT," DECEMBER 1880 - JUNE 1939. Edited by Larry L. Bland (The Johns Hopkins University Press, 1981. 742 Pages. \$30.00). Reviewed by Major David R. Kiernan, University of South Carolina.

This is the first of an intended six volumes that will include not only George C. Marshall's personal and official letters but also extracts from his speeches, statements, and tapes.

Marshall was truly a "man of letters," and the editor and his associates have succeeded in capturing the elusive spirit of this very complex citizen-soldier. This first volume, in fact, provides an insight into the character of an unusually great American who, as a professional soldier, could design bellicose contingencies and, with equal ability, insure a magnanimous peace.

General Marshall kept no diary. Therefore, the reader must appreciate the editor's challenge in attempting to

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.

select those items that are most representative and accurate. The editors have provided a refreshing respite from the usual "kill and tell" genre of recent military memoirs. The reader is rewarded by their efforts.

INSIDE THE SAS. By Tony Geraghty (The Battery Press, 1981. 249 Pages. \$17.95). Reviewed by Captain F.R. Thomas, 8th Canadian Hussars.

"Who Dares Wins" is the motto of Britain's Special Air Service (SAS). Its World War II exploits such as the destruction of almost 400 German aircraft in the Western Desert made the motto a particularly apt choice. It would appear from the SAS solution to the Iranian embassy hostagetaking incident of 1980 in London that these words still have relevance for today's troopers.

In his book, Tony Geraghty covers the activities of this elite British unit from 1950 to 1980. SAS activities during these years have not always been widely publicized for a number of reasons, many of which the author makes clear. The book illustrates that the effectiveness of intervention forces does not necessarily depend on either their size or their firepower.

Of particular interest to INFAN-TRY readers with Ranger or Special Forces experience should be Geraghty's chapter called "How to Select an Elite." The SAS seeks soldiers with initiative, self-discipline, independence of mind, ability to work without supervision, staming, patience, and a sense of humor. Because SAS members work in teams of four under conditions of intimacy, the overriding criterion for selection is whether an SAS instructor could "live with" the individual under observation.

Geraghty does not conclude his book in the usual sense of the word, because he feels that the SAS "is dynamic" and that its history is not ended. He predicts that the SAS story will continue to unfold as in the past largely out of the public eye. His book cannot help but interest tho e

who are involved with the rapid deployment force that is now being created by the United States military establishment.

APPOMATTOX COMMANDER: THE STORY OF GENERAL E.O.C. ORD. By Bernarr Cresap (A.S. Barnes, 1981. 418 Pages. \$15.00). Reviewed by Benjamin F. Gilbert, Professor of History, San Jose State University.

Although the author is a descendant of General Ord, he has been objective in this study of an important but overlooked American soldier. Those who know about Ord are usually familiar only with his California career and his role in the Civil War. This entertaining biography covers virtually all aspects of Ord's career.

Ord was born in Cumberland, Maryland, in 1818. He received his military training at West Point between 1835 and 1839. Shortly after his graduation, Ord was assigned to the Third Artillery, which was then serving in Florida. He soon found himself fighting the Seminole Indians in the Everglades. Ord took part in several dangerous expeditions and won a reputation for enduring hardships.

In 1842, he was sent to Fort Macon in Beaufort, North Carolina, which he found to be dull duty — he always preferred action. In 1844 he was assigned to an artillery unit at Fort McHenry, and when the Mexican War broke out his unit was ordered to California. To Ord's chagrin, the fighting in California was over by the time his unit landed and he settled down to a routine existence at Monterey.

During the 1850s he fought in the Indian wars in Oregon and the Washington Territory. Despite his Southern birth and his pro-slavery sympathies, Ord remained loyal to the Union during the Civil War.

Early in the war he was promoted from captain to general and eventually rose to command an army and a military department. He was considered aggressive, fearless, and skillful in managing troops. Ord was one of the best assault leaders in the Union Army, and he aptly demonstrated this proficiency during the closing days of the war at Appomattox.

With the coming of peace, Ord was made responsibile for occupying the former Confederate capital, Richmond. He maintained a policy of leniency and won the respect of the Virginians. Later, he became the military governor of Arkansas and Mississippi and in 1868 was put in command of the Department of California.

Prior to his retirement from the Army in 1880, Ord commanded the Department of Texas, where he left a legacy of peace along the Mexican border. During the last few years of his life, he represented U.S. railroad and oil interests in Mexico.

The book has extensive footnotes, an extensive bibliography, four Matthew Brady photographs of Ord, and eleven maps that illustrate the Civil War battles in which Ord participated. It should appeal to readers who are interested in the Civil War and to those who like to read good biographies as well.

UNITED STATES-SOVIET RELATIONS IN THE ERA OF DETENTE. By Richard Pipes (Westview Press, 1981. 227 Pages). Reviewed by Captain Don Rightmyer, USAF Directorate of Soviet Affairs.

Dr. Richard Pipes was formerly a professor of history at Harvard University and director of the Russian Research Center there from 1968 to 1973. Today he serves as chief expert on Soviet affairs for President Reagan's National Security Council.

The author's best known, and perhaps most controversial, article—"Why The Soviet Union Thinks It Could Fight and Win A Nuclear War," published in 1977— is included in this collection of his writings. It also includes seven other essays written by Pipes over a period of years.

The essays chiefly illustrate the

theme of detente and how it is viewed and pursued by the leaders of the Soviet Union. This isn't an isolated look at semantics, because Pipes lays the foundation for understanding Soviet policy by examining Russian and Soviet history, foreign policy, ideology, and global strategy.

The essays are well-written and certainly thought-provoking. Many may disagree with the author's conclusions about the motivation and perceptions behind Soviet actions, but readers should consider them and arrive at their own decisions about the USSR today.

HANNIBAL: THE GENERAL FROM ROME. By Ernle Bradford (McGraw-Hill, 1981. 223 Pages. \$14.95). Reviewed by Leroy Thompson, Festus, Missouri.

Unlike many ancient military historians whose training in the classics makes it difficult for them to write in English without sounding ponderous, Ernle Bradford combines sound scholarship with enjoyable prose in this book. Too many writers, when dealing with Hannibal, get wrapped up in his tactics at Cannae or Lake Trasimene while ignoring his great strategic and diplomatic skills, but Bradford treats all aspects of Hannibal's genius. He also avoids the pitfalls of marvelling at the crossing of the Alps while ignoring Hannibal's far more impressive accomplishment of keeping what was basically a mercenary army supplied and cohesive while campaigning constantly for 15 years in enemy territory.

Although Bradford's analyses of Cannae, Lake Trasimene, Trebia, Zama, and other battles are very good, his work is at its best when he covers the grand strategy of the Punic Wars and tries to discover what made Hannibal such a great general.

Interestingly enough, Bradford finds many parallels between the lives and skills of Hannibal and Scipio, who was to prove the Carthagenian's nemesis. If one has time for only one work on the Punic Wars, then this is a good choice.

ROMMEL: BATTLES AND CAMPAIGNS. By Kenneth Macksey (Mayflower Books, 1979. 224 Pages. \$14.95). Reviewed by Alexander S. Birkos, Mount Shasta, California.

Ever since the 1950s there has been a steady stream of books and films about Erwin Rommel, who by now has attained near demi-god status as a World War II military leader. But his worshippers will not like what Kenneth Macksey has to say about their hero in this frank reappraisal of the man and the general.

The author, a specialist in armored warfare, traces Rommel's career, leadership, and abilities as a commander from World War I to the time of his death in 1944. Rommel comes in for some rough treatment at Macksey's hands.

To Macksey, Rommel was often lucky and too often took credit for work done by his subordinate commanders and staff officers. Macksey believes that Rommel's rough treatment of his junior officers, his open contempt for the Italians, his poor handling of the North African campaign, and his unnecessarily poor relations with Field Marshal Kesselring were the real reasons why he was relieved of his command in 1943, not his poor health.

Although Rommel was sometimes lucky and sometimes a bold tactician, more frequently he was rash in his handling of his troops and fortunate in avoiding being captured. He fared badly when he met a competent opponent such as Auchinleck but looked good when he faced an incompetent such as Richie. His personal traits left much to be desired, and he was not above finding scapegoats to cover his own mistakes. One of Macksey's strongest suggestions is that Rommel should never have been advanced beyond corps command.

For anyone who has been long exposed to the Rommel myth, this book is heady stuff. Military historians and professional officers alike will find Macksey's analyses of Rommel's battles incisive and lucid. This book certainly belongs on the shelf of anyone who has an interest in the history of

World War II and in military leadership.

SEA POWER AND STRATEGY IN THE INDIAN OCEAN. By Alvin J. Cottrell and Associates (Sage Publications, 1981. 148 Pages). Reviewed by Dr. Joe P. Dunn, Converse College.

The three essays in this slim volume, another product of the prestigious Georgetown University Center for Strategic and International Studies address the necessity of improving American power projection in the Indian Ocean and the Persian Gulf.

Professor Godfrey Kemp begins with a historical survey and a philosophical discussion of the role of seapower before outlining the dangers of the Soviet challenge to traditional American access to the Gulf area. Robert Hanks and Alvin Cottrell focus on the Straits of Hormuz chokepoint in their detailed depiction of the potential instability and the political-military threats in the area.

Finally, Moorer and Cottrell discuss United States naval requirements for stemming the erosion of area stability and the protection of regional lines of communication. They call for an expansion of the U.S. facilities in Diego Garcia, Kenya, Somalia, and Oman, and for political and military support for Pakistan and Saudi Arabia.

Although the book reiterates familiar themes and breaks no new ground, it is interesting, timely, and worthwhile. Laymen will find it useful,

THE EVOLUTION OF WEAP-ONS AND WARFARE. By Trevor N. Dupuy (Bobbs-Merrill, 1980. 350 Pages). Reviewed by Lieutenant Colonel R.J. Rinaldo, Armed Forces Staff College.

This book is a one-volume distillation of a wealth of knowledge about war by the author of scores of books on the subject and the co-author of The Encyclopedia of Military History.

The author's knowledge, as presented here, lends perspective to the way war has evolved over the centuries. With that perspective, the reader gains fresh appreciation for the complex task of integrating weapons, organizations, and tactics to obtain victory over an opponent.

Dupuy explains why these parts of the military equation have not always added up well. And the generals are not always at fault. Governments, for example, sometimes retrench from military spending following a conflict and this leads to a decline in warmaking developments. At other times the interactions of personalities, peoples, armies, and weapons result in almost unbeatable fighting systems such as Genghis Khan's hordes or Adolf Hitler's Nazi war machine.

The book is not limited to the highlights of military history or to the famous and infamous captains of war. It takes us from primitive times through the nuclear era and covers nearly every important personality and military and social innovation that has had an effect on the conduct of war.

The overall result is useful to the military professional, and the latter parts of the book particularly so. In his last five chapters, Dupuy lays out his reasoned opinions about lethality through the ages, tactics, military history and theory, the timeless verities of combat, the principles of war, and the importance of new ideas in warfare as opposed to new things.

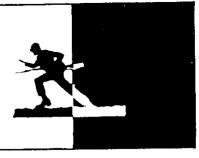
A close reading of its contents should provide much historical background and an analysis for understanding today's defense problems as well as some paths toward solutions.

RECENT AND RECOMMENDED

THE 1st SS PANZER DIVISION IN THE BATTLE OF THE BULGE. By Steven Kane. International Graphics Corporation, 1982. 36 Pages. \$3.50.

TOY ARMIES, By Peter Johnson, Doubleday, 1982, 144 Pages, \$22,50.

INFANTRY LETTERS



IDEAS IN PRACTICE

Dear Sir,

Your January-February 1982 issue of INFANTRY was, as usual, excellent — two articles, especially.

In "A Bilateral Staff" (page 11), Major Walter Mather outlines an organization which, if not formally recognized by the Army, is at least informally practiced by a large number of combat and combat support battalions in the field.

The idea of using the XO as the Deputy Commander for Logistics and the S3 as the Deputy Commander for Operations verifies the importance of these two areas of concern for any operation. The supervision of these functions becomes even more critical in the support battalions where trains areas are prevalent and where support to forward units is likely to be extended over very large areas. Especially when the unit operates with a TOC and a jump TOC, which is normally well forward in the area of the engaged units while the trains are nearer the support area, no one person can coordinate and supervise both areas, and the need for the bilateral staff is clear.

In another article in that issue Captain Walter Shrepel discussed the battalion officer school (page 34). In my last unit the rule of the day was to train, educate, and evaluate the junior officers, and to my way of thinking there can be no better system than one that involves all of the senses in the program — the brain, the hands, the ears, the eyes. In fact, this type of school is not restricted to military units; it can also be used to help train young executives for business firms.

There may come a time when we will see officer SQT or promotion lests. Until that time, the least we can

do is to make sure junior officers have all the advantages we can offer by training and preparing them for higher levels of responsibility. Let's make the battalion officer school mandatory for everyone. General Meyer, where are you?

Thank you for a great magazine.

JOHN D. SPENGLER MAJ, Field Artillery Terre Haute, Indiana

TRAINING'S THE ANSWER

Dear Sir,

I have carefully studied the article "MC-1 Parachute," by Lieutenant C.T. Payne (INFANTRY, November-December 1981, page 9), and the letter in response to it from Captain C.M. Leavelle (March-April 1982, page 49), and I would like to join the argument.

First, my qualifications to argue. I am a senior qualified parachutist with many years in jump status, including participation in eight mass tactical jumps with the MC1-1, with four of those as jumpmaster. As a qualified instructor for this parachute, I helped qualify Company C, 1st Battalion, 504th Infantry (Airborne) as the first company-sized unit to fully qualify with the MC1-1.

Not once during any jump on which I was jumpmaster, using either the T-10 or the MC1-1, did anyone get hurt or experience a midair collision. Why? Training!

First, my unit underwent extensive and repetitive training quarterly on the basics of parachuting, including equipment preparation, packing, and rigging, in-aircraft procedures, exits, canopy control, and parachute landing falls. Also included was an extremely detailed jumpmaster briefing covering each type of aircraft and canopy that could be used on an airborne operation.

Second, my unit tried to ensure that each mission jumpmaster briefing was again extremely detailed but tailored to the specific mission. This again helped train the jumper.

All my experience was before the testing and full introduction of the MC1-1B canopy with the anti-inversion net, and before the past and present programs to more rigidly control exit interval and jumper staggering. Therefore, I ask Lieutenant Payne and others to review their basic airborne refresher training. We as leaders owe it to the airborne soldier to be as well trained for the air mission as for the ground mission. These better trained soldiers will have fewer mishaps.

WALTER D. CROLEY CPT, Infantry San Juan, Puerto Rico

BAYONET TRAINING

Dear Sir,

Reference the news item on bayonet training in your January-February 1982 issue (page 3), in the picture the soldier appears to be executing a jab. I don't know how they teach it now in training, but the magazine well and pistol grip on the rifle are turned down.

When I was a bayonet instructor on Parris Island, we taught Marines during recruit training to turn the magazine well and pistol grip to the right. This way the flat edge of the blade would be inserted between the ribs of an enemy and up through the heart

As an infantryman, I think that there is too little emphasis on bayonet

training. I am not an expert on the subject, but I am proficient in the five killing blows, blocks, and parries the Marine Corps teaches its recruits, and this tip might help.

ROBERT S. GERARD S/SGT, USMC Camp Pendleton, California

ARNG MOS TRAINING

Dear Sir,

I take exception to Major Clifford Baker's letter in the March-April 1982 issue of INFANTRY (page 51) concerning Army National Guard MOS training.

MOS qualification in our unit is handled differently and in a far more meaningful manner than in the one he describes. (Bear in mind that Adjutants General control the Guard units far more than ARNG regulations do.)

In our unit, on-the-job experience or on-the-job training (OJE/OJT) is not used for MOS qualification; only supervised on-the-job training is allowed. In some cases, per regulations, some correspondence course training (also supervised) and formal schools are also required.

Our program is based on the Battalion Training Management System, as well as on the training SOPs from brigade, battalion, and our own company. Critical task lists for MOS qualification are submitted by platoon and section leaders and approved by the company commander. This is not an administrative burden for the commander, but rather the centerpiece of his individual training program.

Furthermore, we specifically set aside time and qualified personnel to conduct MOS qualification during drill weekends, and we purposely integrate the critical tasks required for MOS qualification into all collective field training. The entire chain of command, from commander to first-line supervisor, gets involved in this effort.

By assigning tasks as "homework"

and then using the BTMS pre-test and post-test method of instruction during drill weekends, we can cover many more subjects to the prescribed standards in much less time. Finally, quality assurance tests (QAs) are conducted by the commander, the full-time training staff, and the platoon and squad leaders to ensure proficiency. At that point the MOS is awarded and MOS sustainment takes over.

Trainers Guides are used to develop critical task lists for MOS qualification, along with job books, the realities of unit equipment, and available training areas and unit experience.

Our system seems to be working well, although additional guidance from the battalion level on minimum required tasks is expected. The key to a working program, however, is direct involvement by the chain of command.

MICHAEL D. ORTON SFC, Oregon ARNG Medford, Oregon

SQUAD TRAINING

Dear Sir,

I read the article "Individual Training," by Captain Warren Wilson, in your March-April 1982 issue (page 36) and was disappointed by the generalization concerning the way squad leaders use their training time.

The author states that he found, in his unit, that squad leaders used the lack of training time as an excuse for their own inadequacies. He then went on to tell how he had taken the opportunity to implement a program of training his soldiers in individual training.

As an infantryman, my concern is not with the program but with the method that was used to correct the problem. True, some leaders may use lack of time as an excuse, but this is generally not the case. Why is it difficult to schedule formal training for the basics that build the strength for the unit? If a battalion commander

controlled the hourly breakdown of the training schedule and told his company commanders to train their companies during delays on the firing range, during time left over after short training days, and during pauses in the action on FTXs, could they be expected to accomplish the task? Company commanders expect to be given adequate time and resources to train their units. We as squad leaders expect the same to train the individual soldier. Why does it stop at our level? Individuals die in combat, not companies. We want development and supervision, not criticism.

If a deficiency does occur in individual training throughout the company, it is most likely a problem with the entire company's training chain. It means the platoon sergeant has failed to train, supervise, and counsel the squad leaders; that the first sergeant has failed to do the same with the platoon sergeants; and that the officers have failed to implement and supervise the total training program. We must return the responsibilities and the trust to these positions instead of ignoring them with programs that dodge the problems in the supervisory levels. If a poor leader is allowed to remain in the training chain, his subordinates will not be developed properly, and his unit will be trained poorly.

The formal training schedule must include time to train leaders, individual soldiers, and units. Only then will the FTXs be worthwhile training experiences. The system is designed to work with each member of the training chain having his own span of control. If a member of the chain cannot handle the responsibilities that his position calls for, let's try to develop him. If this fails, let's indicate it on his evaluation report and find someone who can handle it.

DAVID R. LITTLEJOHN SSG, USA Brigham Young University Provo, Utah

FARTH IN M16

Dear Sir,

After reading Mister Embry's letter on the M16 rifle (INFANTRY, March-April 1982, page 52), I must speak my piece. No need to beat about the bush — I think it is one of the best military rifles in the world today, if not the best.

To begin with, let us clear up the argument that the M16 breaks easily and jams readily. Far from breaking easily, the M16 is as durable as any other military rifle. In its almost 20 years of service the M16 has never expe ienced any type of breakage problem. Even the problems of Vietnam were not the result of breakage. As for jamming, that problem was corrected more than 12 years ago, and it was not a problem inherent in the weapon. Documentation can be obtained from Senate subcommittee reports on the M16 and reference can be made to many sources, notably Smith's Small Arms of the World 1977.

Mister Embry's contention that the AR180 and the Ruger Mini 14 are superior to the M16 really raised my eyebrows. The Ruger, a favorite of American "civilian commandos," has been tested by several countries and found suitable only for police

work. The AR180 was tested and found to be unreliable, both in functioning and in parts breakage.

For 16 years now I have been a serious student of twentieth century military history and a collèctor and shooter of military small arms. My faith in the M16 comes from extensive research, comparison, and personal experience. For the past ten years I have served as an infantryman in Ranger, Airborne, and straight leg infantry units, and the M16 has proved to me to be a deadly, reliable rifle. I would want no other weapon for combat.

I will gladly take on all comers on the subject.

SSG SCOTT COOPER Kensington, Connecticut

JUNE, NOT JULY

Dear Sir,

In his review of Die Schlacht um Moskau, by Janusz Piekalkiewicz (INFANTRY, March-April 1982, page 47), Wolfgang Gerhardt states that Hitler attacked the Soviet Union in July 1941. In fact, Unternehmen Barbarossa began on 22 June 1941. By 1 July German forces had taken Minsk, Lvov, Brest-Litovsk, and

Riga (Latvia) from the Russians.

My grandfather was a Flak battery commander in the Luftwaffe and has told me of the tension and action of the Russian invasion in June 1941.

ERHARD F. KONERDING Wesleyan University Middletown, Connecticut

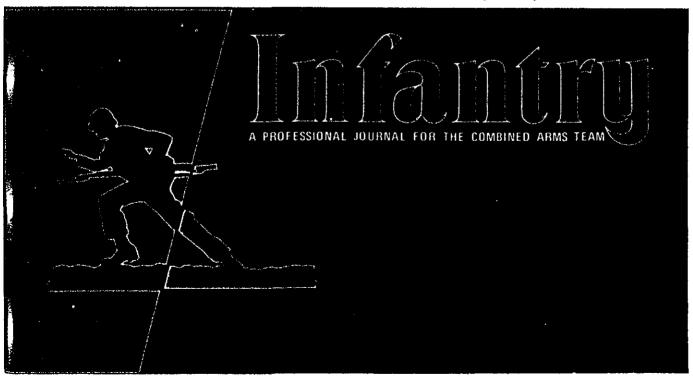
EDITOR'S NOTE: Mister Konerding is right, of course. We knew better.

LOCK, STOCK, ETCETERA

Dear Sir,

On the continuing M16 controversy, the fact that a defense such as Mister Osborne's (INFANTRY, September-October 1981, page 22) seems necessary should be a warning sign. And if its reputation is underserved, why are all the modifications being made, which are to give us the M16A2? These modifications include a burst-fire lock to replace the fully automatic operation; an unbreakable nylon stock and grip; a heavier barrel with a shorter twist and muzzle brake; and new sights.

That's quite a package. In fact it amounts to the replacement of the entire rifle — lock, stock, barrel, and sights. Even the cartridge is to be replaced by the NATO SS109.



Whether we admit it or not, we are, 52 in fact, now in the process of replacing the present M16 with a new rifle, but the only candidate being considered is the M16 itself. This is absurd when there are many other good rifles that deserve consideration the 5.56mm rifle that Fabrique Nationale produces, for example, as a companion piece to the light machinegun we've adopted.

> The FN rifle would give U.S. forces a common design of weapons at platoon level; it would open up the possibility of common infantry weapons among NATO countries: and it would relieve us of the burden of writing articles to convince the troops, against settled tradition and their own better judgment, that the M16 is really an excellent infantry rifle.

> If we can afford to rework the M16 from buttplate to muzzle brake, we can afford to look at something else.

WILLIAM BEFORT Moscow, Idaho

SHUFFLING AUTHORS

Dear Sir.

In the article "One-on-One Train-

ing" in your May-June 1982 issue (page 30), the name of David L. Hannaman should have been listed first in the byline, because he was the primary author of the article as well as the one who originally conceived and developed the training techniques discussed.

While this might seem like a minor point, it does clarify things and give appropriate credit to Mister Hannaman.

JOYCE ARDALE Army Research Institute Alexandria, Virginia

EDITOR'S NOTE: We mistakenly converted the authors' names to alphabetical order in the byline and further erred in scrambling the biographical data at the end of the article. Thanks to ARI for straightening us out.

FIXED BAYONETS

Dear Sir,

It is hard to take your magazine seriously as a professional journal when you publish articles as poorly researched and illogical as the one on bayonet training by Mister Garzone (INFANTRY, March-April 1982, page 34).

The author shows a definite lack of scholarship when he says that "During World War 1 .. an infantry assault with fixed bayonets was the only way ground could be gained." This implies that no ground was gained without the bayonet. Bayonet or no bayonet, no ground was being gained except through extreme carnage. Machineguns and artillery were the problem; that's why we have tanks today instead of high teehnology bayonets.

I also like the thought that the primary goal of bayonet training is to teach aggressiveness. I would suppose that the real objective is to teach soldiers to kill people with it.

That the Infantry Training Brigades can devote nine precious hours pandering to the myth of the bayonet is extraordinary, because soldiers are still not trained very well to use the thing it is attached to — the rifle — to hit targets out to 460 meters. This distance, ironically, is also the length of the new bayonet assault course.

CHARLES L. TALLMAN CPT, Infantry Newport News, Virginia



From The Editor

WE NEED EACH OTHER

More than 480 commissioned and noncommissioned officers, both Active Army and Reserve Component, responded to our 1982 reader survey (sent to some of the infantry companies on our free distribution list) and we appreciate it. Assuming they are a representative sample, we trust that they speak for the rest of you at company level.

We were happy to note that more than half of you read "most of each issue," that more than half use INFANTRY in preparing reports of training materials either "frequently" or "sometimes," and that almost all rate the writing style of the articles "generally clear and easy to understand." These are all major goals of the staff — to see that the magazine is readable, so that it will be read and then used as it is intended to be used.

Most of you also either "leave it in the dayroom," "keep it for unit reference," or "pass it on." That's good, too, because the idea is to give as many of you as possible a chance to see and use each issue.

To get you to use the magazine, though, we know that we must give you the information you think is most useful. The specific subjects the respondents would like to see covered more often in INFANTRY are the following:

- Tactics (60%).
- Weapons and equipment (50%).
- Training techniques (50%).
- Leadership and command (45%).
- Combat developments (42%).

A substantial percentage also would like to see more on military history, maintenance and logistics, and intelligence and electronic warfare.

But you are more than the readers and users of the magazine; many of you are also the writers. So, if you have had some special training or experience in one of the subjects mentioned, please let us hear from you. Although we do have to be selective about the articles we accept because of the limited number of pages we have, your manuscript will receive careful editorial consideration, and what you have to say may help another infantryman in another unit.

To those who request that we publish INFANTRY more often so that we can print more articles, we must say that's not possible right now. (With the budget cuts we're all getting, we're happy to have what we have.) But we are taking some steps to make up for the eight pages we lost recently by making the best possible use of the ones we have left. We can't make the magazine solid type, though, or we'd lose you all, so we try to make it attractive at the same time by including some art work.

Finally, in every survey we have ever conducted, at least one of you has offered a suggestion as to what we should put on the back cover, and we were not disappointed this time. But, for now at least, PLAYBOY will have no competition from INFANTRY.

