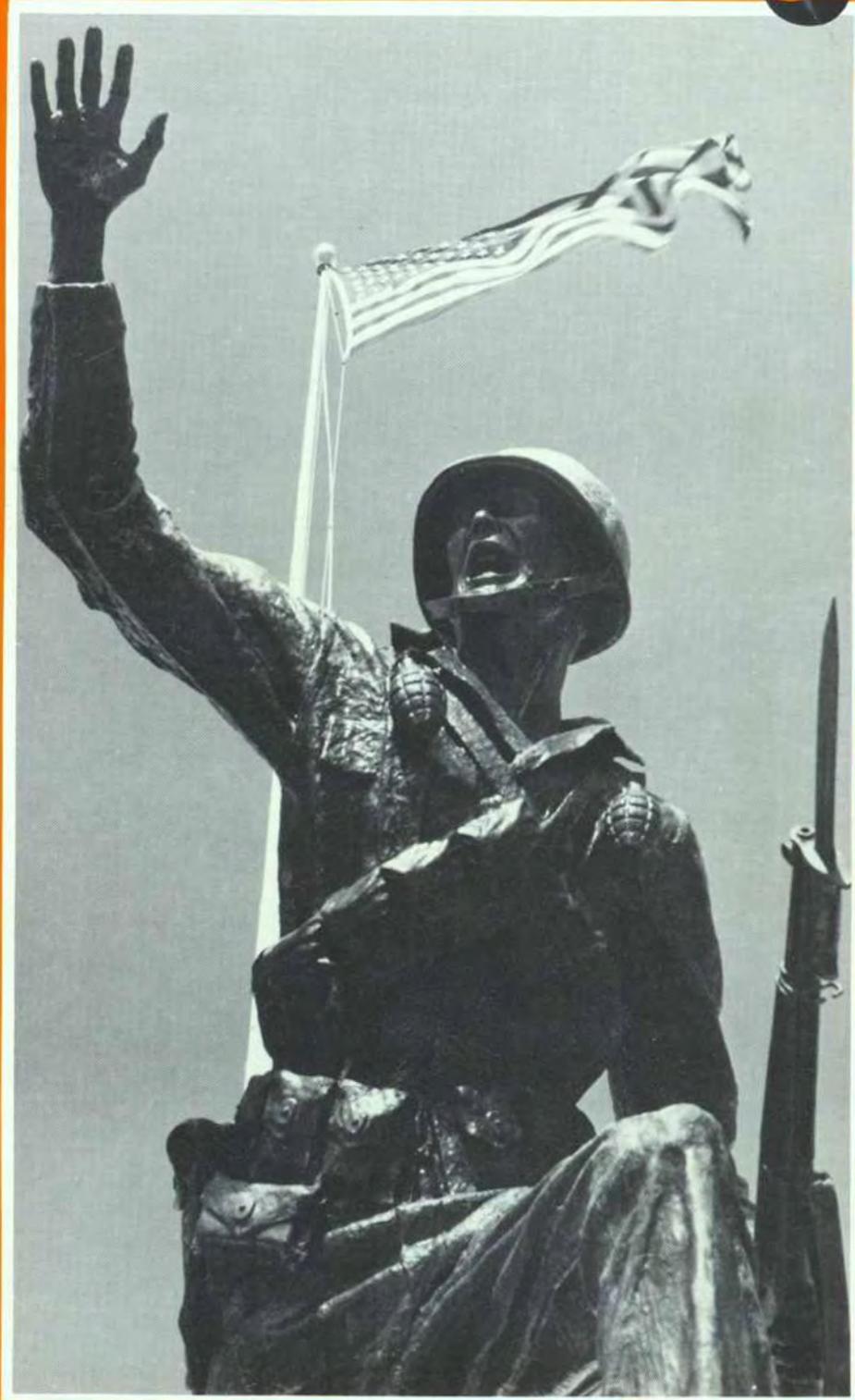


Infantry



Infantry

November-December 1989

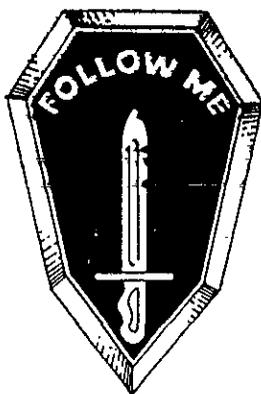
Volume 79, Number 6

PB 7-89-6

MICHAEL P. W. STONE
Secretary of the Army

MG MICHAEL F. SPIGELMIRE
Commandant, The Infantry School

ALBERT N. GARLAND
Editor, INFANTRY



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

By Order of the Secretary of the Army:

CARL E. VUONO
General, U.S. Army
Chief of Staff

Official:

WILLIAM J. MEEHAN II
Brigadier General, U.S. Army
The Adjutant General

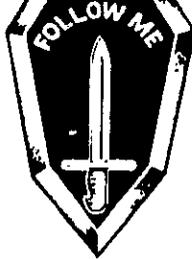
Distribution: Special

- 18 **KMAG AND THE 7th ROK DIVISION**
Lieutenant Thomas A. Hall
- 24 **NTC: Winning in the Engagement Area**
Lieutenant Colonel Robert J. Greenwalt, Jr.

DEPARTMENTS

- 1 **COMMANDANT'S NOTE**
- 2 **LETTERS**
- 5 **INFANTRY NEWS**
- 6 **PROFESSIONAL FORUM**
 - 6 **THE MISUSE OF DRUGS**
John M. Henderson
 - 8 **KILLING ENEMY ARMOR**
Major James B. Leahy, Jr.
- 11 **TEAM EAGLE**
Captain Mark J. Perry
Lieutenant Marc A. Sierra
- 13 **THE CASE FOR A UNIT HISTORIAN**
Lieutenant Eric W. Stinebring
- 14 **COOP: Commander's Organization Orientation Program**
Captain Mark W. McLaughlin
- 16 **48 HOURS: Fighting the Reserve Component Battle**
Captain German J. Velez
- 27 **PAST TIMES: Combat Notes and Jungle Training Notes**
- 32 **TRAINING NOTES**
 - 32 **NEW INFANTRY SQT PROGRAM**
Edson B. Harrington, Jr.
 - 33 **IOBC: Training Infantry Platoon Leaders**
Master Sergeant Charles G. Beer
 - 35 **OFFENSIVE RECONNAISSANCE PLANNING**
Lieutenant Colonel Howard W. Crawford, Jr.
 - 38 **DRAGON SUSTAINMENT TRAINING**
Staff Sergeant Don F. Metters
 - 40 **DUFFEL BAG DELIVERY**
Chief Warrant Officer Ray L. Snell
Donald E. Pippins
 - 41 **THERMAL GUNNERY TRAINING**
Captain Stephen E. Barger
 - 43 **TRAINING THE LIGHT DIVISION**
Phillip L. DiGeorge
- 45 **ENLISTED CAREER NOTES**
- 47 **OFFICERS CAREER NOTES**
- 49 **BOOK REVIEWS**

• *INFANTRY* is an Army professional bulletin prepared for bimonthly publication by the U.S. Army Infantry School at Building 1827, Fort Benning, GA. • Although it contains professional information for the Infantryman, the content does not necessarily reflect the official Army position, and it does not supersede any information presented in other official Army publications. • Unless otherwise stated, the views herein are those of the authors and not necessarily those of the Department of Defense or any element of it. • Official distribution is to Infantry and infantry-related units and to appropriate staff agencies and service schools. • Direct communication concerning editorial policies and subscription rates is authorized to Editor, *INFANTRY*, P.O. Box 2005, Fort Benning, GA 31905-0605. • Telephone: (404) 544-4951; AUTOVON 784-4951. • Second-class postage paid at Columbus, GA, and additional mailing offices. • POSTMASTER: Send address changes to *INFANTRY*, P.O. Box 2005, Fort Benning, GA 31905-0605. • USPS Publication No. 370630. ISSN: 0019-9532.



Commandant's NOTE

MAJOR GENERAL MICHAEL F. SPIGELMIRE Chief of Infantry

EXCELLENCE IN WEAPON MARKSMANSHIP

In 1907, Lieutenant General Arthur MacArthur, then commander of the Pacific Division, established a School of Musketry for his Division at the Presidio of Monterey, California. The general had only recently returned from the Philippine Islands, where the Army had been engaged in counterinsurgency operations for a number of years, and where the Infantry's operations had disclosed a serious decline in its marksmanship skills. This decline was attributed to increased urbanization and the fact that city-bred Army volunteers were no longer as familiar with firearms as their rural predecessors.

Six years later, in 1913, the School, which had been quite successful in improving the Infantry's shooting skills, was moved to Fort Sill, Oklahoma, and in 1917 its name was changed to the Infantry School of Arms. By this time, the Army's senior Infantry leaders had come to realize that the blood-drenched battlefields of Europe required far more than just well-trained rifle shooters who could hit a target on the practice range; they also called for Infantrymen skilled in all combat conditions of modern warfare, as much at home with the enemy's various weapons and weapon systems as with their own rifles, hand grenades, pistols, machineguns, trench mortars, and trench knives.

A year later the School moved to Fort Benning and there its name was shortened to its present one—The Infantry School. From that day to this, the subject of Infantry weapons proficiency—not just rifle marksmanship—has remained a high priority in our programs of instruction.

Today, we at the Infantry School are placing increased emphasis on developing both individual and collective firing proficiency standards with all of our weapon systems, from the hand grenade to the 25mm gun of the Bradley fighting vehicle. We feel that Infantry commanders at the squad, platoon, and company levels must learn to develop their maneuver and fire plans to increase the effectiveness of the available weapon systems and to decrease the vulnerability of their units to enemy fires.

To accomplish this, our Infantry leaders must fully understand the capabilities and limitations of the weapons they have, and the proficiency of the soldiers who are to employ those weapons. Local defeats are almost invariably caused by ineffective fire. The lessons of history have shown that a unit's success in battle depends largely on the quality of its training and the quality of its leaders.

As I mentioned in an earlier Commandant's Note, we have integrated a "train-the-trainer" module into our leader courses. The aim is to make sure our Infantry units get knowledgeable leaders who can train and assess weapon proficiency tasks and effectively employ Infantry firepower. We offer a number of specialized courses such as a sniper course, a mortar platoon course, a TOW trainer course, and a Bradley master gunner course, which get at the essence of direct and indirect fire gunnery. We are also developing advanced courses of fire with higher standards for Infantrymen. These will be incorporated into our Infantry one station unit training programs and our training publications.

We recognize, however, that this goes only part way toward resolving the Army's marksmanship and weapon proficiency problems. What we need more than anything else is direct involvement by our field commanders.

Leaders need to stress the importance of marksmanship at all levels, from the top down. Units must implement individual and collective weapon proficiency training on a year-round schedule, and employ training devices during all phases of the program. For example, the Multi-purpose Arcade Combat Simulator (MACS) has been in use for several years, and the Infantry School is now helping units procure MACS as an interim measure until a new marksmanship sustainment device is fielded in 1990.

Commanders must also conduct and evaluate small unit collective live firing as often as a unit's resources will permit. Unit officers must actively participate in proficiency evaluations and must be thoroughly familiar with all the weapon systems in their units. (It is difficult to imagine an Infantry officer who does not jump at every opportunity to increase his mastery of his unit's weapons.)

Infantry officers serving on battalion, brigade, and division staffs should be required to demonstrate proficiency with their assigned weapons at least twice a year, if not more frequently. In future wars, there may well be as much action in the rear areas as there is at the front, so it behooves all staff members to cross train on and become intimately familiar with every weapon they can get their hands on. Cooks, bakers, clerks, and mechanics have been called on in the past to perform as Infantrymen, and they may well be called on in the future to do so again.

We must also allocate time to the hands-on study of foreign weapons. Our soldiers should become familiar with the basic weapons used by potential opponents throughout the world. If possible, they should be allowed to fire those weapons. In this way our soldiers will not only be able to use the weapons if they have to, but they will also know the different sounds those weapons make when compared with their own. This can be important in close-in fighting.

The Infantry School's wealth of instructional material and experience in doctrinal development is available to all Infantry units, no matter where they are stationed. The new version of Field Manual 23-9, M16A1 and M16A2 Rifle Marksmanship, was distributed to the field this past summer. It is designed to lead trainers through the process of planning, conducting, and evaluating performance-oriented marksmanship instruction. Other weapon and marksmanship manuals are also being developed.

Our goal is to train and field a professional Infantry force that is led by commissioned and noncommissioned officers who can command and train their units, and who will provide the concerned leadership and guidance our soldiers deserve.

Finally, at the Infantry School we are eager to learn from your experience so that we can disseminate successful training techniques throughout the Army and ensure that our doctrinal publications reflect the best thinking and judgment of all professional Infantrymen. We look forward to hearing from you.

INFANTRY LETTERS



UPGRADE BATTALION MORTARS

The article "120mm Mortar in Light Forces," by Richard E. LaRossa (INFANTRY, May-June 1989, p. 15-16), reflects a dangerous misconception of the needs of light infantry on modern battlefields. Mr. LaRossa's proposal essentially trades decreased range for increased explosive weight. It does not go far enough toward answering the problems light infantry fire support faces.

The M102 105mm howitzer does need to be replaced. The Army recognizes this and plans to buy the M119 105mm howitzer as an interim until a new lightweight 155mm howitzer is operational. The M119 can reach out to 19,000 meters with rocket-assisted projectiles (RAP) compared with the maximum range of 15,000 meters for the 102's RAP rounds. The lightweight 155mm howitzer will have an even greater range and a more powerful warhead.

Using the 120mm mortar in a field artillery unit would provide only one-fourth of the coverage of the M102 and would force the artillery to move closer to the fighting. The artillery would then be vulnerable to virtually all forms of artillery counterbattery fire and to being overrun by enemy assaults. It would also have to stay on the move to keep up with fast-moving attacks and would increase the crowding of the maneuver and staging areas close to the battle.

I don't believe that one battalion of 155mm howitzers, as Mr. LaRossa proposes, would be capable of handling the counterbattery desires of a division at war. Too, the large shipments of the Soviet-developed M120 120mm mortar to client nations could easily overwhelm the mortars deployed by all the U.S. light infantry divisions. Other nations, such as Israel and France, also sell

120mm mortars in great quantities.

The artillery readily available to most nations has ranges that exceed 30 kilometers, greater than the range of the M198 155mm towed howitzers now being used by our light infantry divisions. Most nations also field multiple rocket launchers that provide extremely heavy and instantaneous fire support. This important capability has been missing from our light infantry divisions since their formation; the divisions must have it if they are to remain competitive. Unless the Air Force or Navy is directed to attack enemy artillery positions, using 120mm mortars to equip field artillery battalions would assure that enemy artillery could gain fire superiority.

I am struck by the impression that the 120mm mortar would be used primarily as an antitank weapon. (The author says, "Of primary importance is the 120mm mortar's potential as a deadly antitank weapon....") Our artillery battalions would then become specialized antitank battalions, and this is a poor reason for employing a 120mm mortar. The use of antitank artillery rounds remains the exception and not the rule. The difficulties in targeting moving tanks, the expense of ammunition, the limited training possibilities, and the countermeasures limit the utility of precision-guided munitions. I would rather see the Army develop a good re-

placement for the Dragon antitank missile.

The Army still needs a good 120mm mortar, but it should be deployed in place of the 81mm mortar at battalion level. If need be, the 81mm mortar could be retained alongside the 120mm mortar and used when the 120mm mortar could not deploy in the rough terrain light infantry battalions operate in. This would be rare, because the mortar platoon in a light infantry battalion still needs eight HMMWVs to deploy four 81mm mortars with shorter ranges. The 120mm mortars surely could be towed using HMMWVs. This would provide four mortars for each light infantry battalion, or a total of 36 120mm mortars.

The division artillery needs 155mm lightweight howitzers in each of the three artillery battalions that support the maneuver brigades. The general support battery could then be equipped to provide a multiple rocket launcher capability. The towed MLRS or the Israeli 160mm Light Artillery Rocket System would be excellent for this unit.

The time has come to stop decreasing our firepower to meet the Air Force's airlift capability and start developing the airlift transports to meet our firepower requirements. Also, transporting ammunition to artillery units in light infantry divisions on the battlefield must not be a problem. A UH-60 Black Hawk helicopter transport unit should be formed to ensure fast resupply of ammunition to any unit in the division. This unit should have about ten helicopters and should be dedicated to ammunition transport. This unit would not replace ammunition transport trucks, but would supplement them. (Of course, a whole book could be written on that subject.)

CHARLES J. HAAS
CPT, Military Intelligence
Fort Ord, California

POSTAL REGISTRATION

1. Date of Filing: 30 September 1989.
2. Title of Publication: INFANTRY.
3. Frequency of Issue: Bimonthly.
4. Location of Known Office of Publication: U.S. Army Infantry School, ATTN: ATSH-TD-M, Fort Benning, GA 31905-5593.
5. Location of Headquarters of the Publication: U.S. Army Infantry School, ATTN: ATSH-TD-M, Fort Benning, GA 31905-5593.
6. Publisher and Editor: Albert N. Garland, INFANTRY, P.O. Box 2005, Fort Benning, GA 31905-0605.

MAP COURSE DISTANCES

In "Map Course Distances" (INFANTRY, July-August 1989, pages 11-15), Major Charles F. Coffin III offers his idea of a better way to verify the accuracy of distances when setting up or running through an azimuth-and-pace land navigation course. He suggests that we teach soldiers to treat the distance between two points as the hypotenuse of a right triangle, then to use a geometric formula to arrive at that distance. He claims this is a more accurate method than others currently in use.

The shortest distance between two points is a straight line, not a right triangle. Take a strip of paper, align it with the two points, make your tick marks, and you have the distance between those points—just as accurately and far more simply than Major Coffin's method.

His method suffers the same source of perceived and real inaccuracies as any other method; it does nothing to alleviate poorly plotted points. It ignores the obvious: Map distances do not accurately equal ground distances. A soldier who walks up and down hills all day on a compass course will never agree on distance with someone who sits behind a desk and plots that same course using a calculator and a geometric formula.

Major Coffin's ultimate goal in all of this is to improve the instruction that leads to good land navigation skills among soldiers. Since he is currently assigned in a position where this skill is taught, I offer him the following suggestions. Teach your students the source of inaccuracies, not how to find precise distances or azimuths. They should mark their points and measure their distances carefully and use very thin pencils. If they understand where land navigators go wrong, they will learn to be more careful.

Teach them that land navigation requires judgment, not geometry. They will not follow an azimuth and pace to within five feet of a camouflaged case of MREs. Azimuth and pace will only get them closer to it. Terrain association, resection, the use of intermediate points to guide on, and an appreciation of the foliage in the area and the elevation they

traverse will also help them in their search for the correct location.

And never imply that the course is precise and perfect. The course is man-made, and man has yet to achieve perfection.

PATRICK J. CONLON
LT, Infantry
Fairbanks, Alaska

SOVIET INFANTRY

The informative article "Soviet Motorized Infantry" in the July-August 1989 issue of INFANTRY (pages 42-43) was a bit misleading in stating, "The Soviets do not field any light infantry units."

The Soviets do indeed field "light" infantry units. A valuable companion article might be written to cover the various motorized rifle units converted to "mountain" units, the dozen or so air assault brigades, the many airmobile battalions, and all of the smaller specialty units such as Ranger and commando.

WALTER D. MILLER
SSG, Ohio Army National Guard
Xenia, Ohio

LIGHT FIGHTERS

I read with interest the article by Colonel (Retired) Philip D. Grimm ("Infantry in Action: Saturation Operations," July-August 1989, pages 28-33). I was a member of Company A, 4th Battalion, 3d Infantry during that time and can vividly remember when he took command.

At first, many soldiers did not like the operational techniques employed, but after our first operation we could see real results, and we didn't lose people. Many of the soldiers were skeptical because we were short-handed, and they felt we couldn't fight without superiority in numbers. But Colonel Grimm's plan of engagement soon disproved this idea.

I am now a first sergeant in the 205th Infantry Brigade, which is the round-out brigade for the 6th Infantry Division in

Alaska. Colonel Grimm's plan is definitely "light fighter tactics," and the Army should look at it as such.

SCOTT E. THOMPSON
1SG, Infantry
St. Cloud, Minnesota

MECHANIZED AND AIRMOBILE

In "Airmobile Operations for Mechanized Units" (INFANTRY, July-August 1989, pages 40-42), Captain Mark W. McLaughlin reports the complexities of planning and executing his company's air assault operation during an ARTEP as an element of the 1st Armored Division's air assault training plan. His clear, concise report carries some cogent lessons and recommendations.

You may be sure that I read the article in great detail, because as a major with the 1st Armored Rifle Battalion, 6th Infantry, Combat Command "A", 1st Armored Division, I wrote "Airlanded Armored Infantry," which appeared in the January-February 1959 issue of *Armor*. (That's three decades long gone.)

I wrote that article to report the results of a troop test that had been put into the scenario for Exercise STRONG-ARM, conducted from Fort Polk, Louisiana, in May 1958. The stated object of the article was "to present, from the participant's view, an approach to conducting airlanded operations with the Armored Rifle Battalion.... For Armor and Armored Infantry commanders, present and future, the subject is worthy of continued study and experimentation."

In his foreword to my article, Colonel Delk M. Oden, who commanded Combat Command "A" during the test, wrote, "While our current *Armor* series manuals soundly state in general terms our capabilities for helicopter-borne operations, I am convinced that we must develop our actual readiness to perform such operations...."

Captain McLaughlin, still carrying the colors of the same infantry regiment in the same armored division, seemed to face many of the same considerations

and concerns for a complex operation that his predecessors had encountered back in the outer boondocks of Fort Polk.

But wait a minute! Captain McLaughlin's Company C, 7th Battalion, 6th Infantry, made an air assault by *computer simulation*. He writes:

Although we were unable to execute an air assault mission during the actual ARTEP, the simulation exercise validated the concept of an air assault by a dismounted company. The company and task force commanders were confident that, in an actual operation, such a mission would succeed. We did learn several important lessons from the simulation.

Long before the computer came along to enable The Great "Let's Play Like," the 1st Battalion, 6th Infantry actually and in person took 'em out of the tracks and put 'em in the choppers for three quick operations: A 12-mile lift at 0430 on 7 May to control a road network in a small town; at 1630 the same day, an 18-mile trip to seize a piece of critical terrain; and at a very dark 0230 on 9 May, another 12 miles for a road junction on the combat command's objective. (If you want some thrills and chills, try that night hop after only a minimum of training for both lifters and liftees!)

I do not want to appear as the armchair imposter who grumps, "You kids should have been there in the old days when we got out there and *did it!*" It is very likely that having our airlanded armored infantry experiment implanted in STRONGARM as an official test requirement gave us a rare training opportunity. We encountered command and staff problems that couldn't have been programmed into a computer, even if we had been blessed (or burdened) by one.

Regarding the basic troop leading procedures, I wrote, "In this period, Armor's well-known *deliberate planning, violent execution* may of necessity be amended to *violent planning, violent execution!*" All would agree that a present-day computer simulation would be superior to no exercise at all, and certainly Captain McLaughlin reported it in fine professional style.

What really grabs me is the feeling that there should be some means in the system that would make the experiences of the past more readily available to those who are, again and again, learning the same lessons the hard way. Or, in the case of computer simulations, maybe learning them the easy way.

I keep up fairly well with the service journals that deal with ground combat, and I didn't see an article on airlanded armored (mechanized) infantry during that 30 years between 1959 and 1989. Were there others? Have other units regularly conducted such air assaults in ARTEPs, whether computer simulated or real? I would appreciate being brought up to date by readers who have been there.

ROLFE L. HILLMAN, JR.
COL, U.S. Army, Retired
Arlington, Virginia

MILITARY HISTORY WRITING CONTEST

The Army's 1989 Military History Writing Contest is open to all students who attended officer advanced courses and the Sergeants Major Academy during calendar year 1989.

Entries must be previously unpublished manuscripts of 2,000 to 3,000 words in length (approximately 7 to 10 pages), typed and doubled-spaced. The papers should develop a historical theme related to military history. Documentation is required, but footnotes or endnotes do not count as part of the length requirement.

Some suggested topics are:

- The noncommissioned officer in peacetime or wartime.
- The black experience during the Civil War, the Spanish-American War, World War I, World War II, or Korea.
- Leadership training related to combat—for example, Ridgway in Korea.
- Training—for example, Civil War or other training programs in war or peace.
- Light infantry forces—development, training, employment.
- Mexican border operations, Indian campaigns.

- Unit cohesion and stress in combat.
- Fighting surrounded and winning—for example, the Ardennes or Vietnam.
- Logistics.
- D-Day and the invasion of Europe (45th Anniversary in 1989).

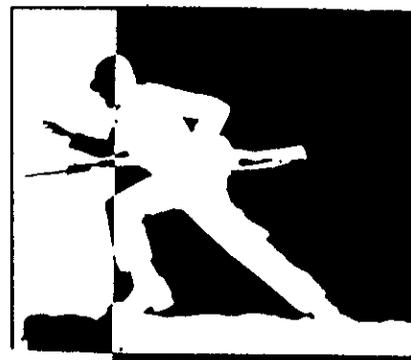
Entries for the 1989 Military History Writing Contest must be submitted by midnight 31 December 1989. They should include the title of the Sergeants Major Academy or advanced course the author attended, the course number, the dates attended, and forwarding address upon completion of the course. Entrants for 1989 should contact their command historians for assistance in writing their essays to conform with acceptable historical standards and methodology.

Two copies of the manuscript, along with any accompanying photographs, maps, or other graphics must be sent to U.S. Army Center of Military History, ATTN: Writing Contest, Washington, DC 20314-0200. For additional information, anyone who is interested may call me at AUTOVON 285-1279 or commercial (202) 272-1278/1279.

A panel of three military historians will judge each entry on the basis of usefulness to today's Army leader, originality; historical accuracy/documentation; and style and rhetoric.

The prizes will range from \$500 to \$100, or as the judges direct. Contest winners will be announced approximately 31 March 1990.

BILLY A. ARTHUR
Chief, Field Programs
Center of Military History
Washington, D.C.



INFANTRY NEWS



THE 1990 INFANTRY Conference will be held at Fort Benning 9-13 April 1990.

All correspondence concerning the conference should be addressed to the Office of Infantry Proponency, U.S. Army Infantry School, Fort Benning, GA 31905; AUTOVON 835-5023, commercial (404) 545-5023.

THREE NEW VIDEO TAPES produced by the Fort Benning Training Support Center (TSC) are now available:

- Ranger Challenge, video tape number TVT-7-19, length 16 minutes.
- Organic Nuclear, Biological and Chemical Equipment, video tape number 931-071-3226-B, 14 minutes.
- Expert Infantry Badge, video tape number 920-071-3181-B, 51 minutes.

The tapes are available in one-half-inch or three-fourths-inch formats.

To obtain one or more of them, complete DA Form 3903 and submit it to your servicing TSC or mail it to Commander, U.S. Army Infantry Center, Directorate of Plans, Training, and Mobilization, ATTN: TSC (Building 108, Services Branch), Fort Benning, GA 31905-5273.

Local TSCs will provide the blank tapes, but requests to Fort Benning must include the appropriate number of tapes.

THE INFANTRY ISSUES and Lessons Learned Analysis System has been updated and is ready for distribution. This computer software package is a collection of infantry-related observations and issues that give a user the benefit of the experiences of other infantrymen.

There are now more than 1,800 observations in the database that have come from various sources: the National Training Center, the Joint Readiness

Training Center, the Center for Army Lessons Learned (CALL), commander's comments, Infantry Liaison Team reports, exercise reports, Reserve Component evaluations, Combined Arms Training Activity newsletters, and the Army Safety Management Information System.

The software package can be run on IBM-PC-compatible computers with hard-disk capability.

Requests for copies should be sent, along with six 3½-inch or ten 5¼-inch diskettes to Commandant, U.S. Army Infantry School, ATTN: ATSH-ES, Fort Benning, GA 31905-5420.

THE NEW MONTGOMERY GI Bill (MGIB) will take the place of the Vietnam-era GI Bill, which dies 31 December 1989. The new bill will continue to offer educational benefits to eligible soldiers.

Although the new bill is primarily intended for soldiers who first entered active duty after 30 June 1985, Vietnam-era and later soldiers may also be eligible for MGIB programs.

More information on eligibility and application procedures is available from post education centers or offices of the Department of Veterans Affairs.

A NEW LEGAL GUIDE is now available to U.S. Army Reserve members. The *Commander's Legal Guide*, produced by the office of the Command Judge Advocate at the Army Reserve Personnel Center in St. Louis, answers the questions Reservists most often raise about the Uniform Code of Military Justice and other laws.

The guide is available to commanders from the Office of the Command Judge Advocate, ATTN: DARPA-ZJA (Project North Star), 9700 Page Blvd., St.

Louis, MO 63132-5200; AUTOVON 693-7908/7909, or commercial (314) 263-7828.

THE U.S. ARMY OFFICER Candidate Alumni Association met in Columbus, Georgia, recently to renew old acquaintances and share experiences. The participants ranged from graduates of Class 1, which graduated on 27 September 1941, to graduates of Class 5 of 1984.

Among other activities, the group toured the OCS Hall of Fame and the National Infantry Museum and participated in a business meeting.

During the business meeting, a new constitution and by-laws was adopted, and the Association's name was changed to The Infantry Officer Candidate School Alumni Association.

The members also resolved to establish the Jess W. Walls Distinguished Officer Candidate Award to be presented by the Association to one graduate of each future OCS class. Colonel Jess W. Walls, a member of the first OCS class, distinguished himself in numerous assignments before becoming the first OCS graduate to command The School Brigade at Fort Benning. He also has been instrumental in organizing and operating the Association.

Regular membership is open to graduates of the OCS at Fort Benning and Fort Riley, Kansas. Associate membership is open to graduates of other OCS programs and to other persons who have made and will continue to make significant contributions to the OCS program. Annual dues are \$10.

Anyone who is interested in joining the Association may contact the Secretary, The Infantry OCS Association, P.O. Box 2192, Fort Benning, GA 31905.



The Misuse of Drugs

JOHN M. HENDERSON

The use of "performance-enhancing" drugs by soldiers has become a concern to the Army's commanders and medical personnel alike. Leaders at all levels therefore need a more complete base of knowledge regarding such drugs and their possible abuse by soldiers in their units.

No drug is completely without risk. Even aspirin, an effective drug that has been known for more than a century, can have undesirable effects. But since the benefit-to-risk ratio for aspirin is high, it is prescribed with near impunity. The same cannot be said for most other drugs. The risks soldiers take if they use some drugs are significant. In fact, the end result of self-prescribing can be premature death.

Apparently, though, soldiers who are sufficiently motivated to perform well in physical activities will explore any available means of improving that performance. These means include ergogenic drugs.

Ergogenic drugs are any substances used to gain an edge in performing a physical act. Using these substances—whether they are legal or not—is called "blood doping," or simply "doping." One definition of "doping" is "the administration of any substance foreign to the body or of any physiologic substance taken in abnormal quantity or taken by an abnormal route of entry into

the body with the sole intention of increasing performance."

Most of these substances are legal prescription and over-the-counter drugs produced by reputable pharmaceutical companies. But some of them are illegal; that is, they are either illegal to possess or illegally manufactured. Finally, some of the "doping" substances are legal drugs, obtained legally, but used in a way that the manufacturer never intended.

RISKS

Soldiers of all ranks, MOSs, branches, races, and ages, and even their family members, have approached medical personnel concerning the value of doping agents and methods of using them. Although most of the substances they ask about are quite legal and inexpensive, they are also easily misused and offer more risks than benefits.

The accompanying chart shows some examples of drugs that can be beneficial if used as intended but that also have possibilities for abuse:

- Stimulants such as those listed may be obtained over the counter or by prescription. In addition to stimulating the brain's center for wakefulness, however, they also stimulate the heart and can cause irregular beats and rhythms.

They can put the user at risk for heat injury.

- Anabolic steroids are easy to obtain by prescription from a physician, but they can also be obtained from illicit sources such as fitness gyms and nutrition "experts." These drugs cause high blood pressure, heart disease, and acne. In men, they can reduce the size of the testicles; reduce sperm production and lead to impotence; enlarge the breasts; cause premature baldness; stunt the growth of bones; and inflame the prostate gland. In women, they can cause a deepening of the voice, excessive facial hair growth, and abnormal menstrual cycles. In both sexes these drugs can cause an increase in aggressiveness and sexual appetite, which could result in aberrant sexual and criminal behavior. After using anabolic steroids, the user can develop a profound depression, and could be suicidal.

- Diuretics are used to reduce weight quickly and also to reduce the concentration of drugs in the urine (as a "masking agent" for those drugs). By causing abnormal water loss, a diuretic can cause dehydration, heat injury, excessive loss of body salts such as potassium, and abnormal heart rhythms and muscle contractions.

- Narcotic pain killers produce a sensation of euphoria and a false sense of invincibility and athletic prowess.

COMMON ERGOGENIC AIDS

EXAMPLE (Generic Name/Trade Name)	MANUFACTURER'S INTENDED USE	ADVERSE EFFECTS IF MISUSED		
Stimulants				
caffeine/Vivarin	To stay awake.	All stimulate heart and cause irregular beats and rhythms. User risks heat injuries.		
amphetamine/Dexedrine, Obetrol	To control appetite.			
ephedrine/Broncotabs, Primatene	To control asthma.			
isoproterenol/Medi-Haler-ISO	To control asthma.			
methylphenidate/Ritalin	To control hyperactivity.			
phenylpropanolamine/Entex, Contac	For colds.			
phentermine/Fastin, Ionamin	To suppress appetite.			
Anabolic Steroids				
metandienone/Danabol	All of these increase the synthesis of protein and lean muscle mass, which is said to improve strength and endurance.	High blood pressure, heart disease, acne; abnormal sex characteristics, premature baldness; increased aggressiveness and sexual and criminal behavior; profound depression.		
nanrolone/Durabolin				
stanozolol/Stroma				
testosterone/Malogen				
methyltestosterone/Andriol				
oxandrolone/Anavar				
oxymetholone/Adroyd				
Diuretics				
furosemide/Lasix	Eliminate fluids from the tissues in certain conditions.	Dehydration, heat injury, excessive loss of body salts (potassium), abnormal heart rhythms and muscle contractions.		
spironolactone/Aldactone				
chlorothalidone/Hygroton				
bumetanide/Bumex				
acetazolamide/Diamox				
ethacrynic acid/Edecrin				
Narcotic Pain Killers				
codeine/Codipertussin	Euphoria, false sense of invincibility and athletic prowess; inability to recognize injury; physical and psychological addiction.			
dihydrocodeine/Synages				
nalbuphine/Nubain				
pentazocine/Talwin				
trimeperidine/Demerol, Mepergan				
opium/Paragoric				
oxycodone/Vicodan				
Non-Narcotic Pain Killers				
aspirin			Stomach upsets, ulcers bleeding, nausea, and changes in behavior.	
acetaminophen/Tylenol				
difenhydramine/Dolobid				
ibuprofen/Motrin				
indomethacin/Indocin				
sulindac/Clinoril				
naproxen/Naprosyn				
Beta Blockers				
nadolol/Corgard	Lowers blood pressure.	All limit heart's ability to respond to work loads; can limit the way body fuels are used; and may increase heat injury.		
pindolol/Visken				
atenolol/Tenormin				
propranolol/Inderel				
timolol/Timoptic	Lowers heart rate. Controls glaucoma by lowering the pressure in the eye.			

This list is not complete, and the examples cited are in no way meant to be pejorative. See article text for additional discussion of possible abuses.

Since these drugs raise the pain threshold, the user may not recognize an injury and, as a result, may sustain a more serious injury. The user may further risk injury if he perceives a dangerous situation as safe. These drugs are addictive physically as well as psychologically. All of them can be obtained by

prescription or purchased on the streets.

- Non-narcotic analgesics can cause stomach upset, ulcers, bleeding, nausea, and changes in behavior.

- Beta blockers can produce a calming effect and reduce tremor or trembling. These drugs limit the heart's ability to respond to work loads; can

severely limit the way body fuels are used; and since they limit the body's ability to respond and adapt, may increase the risk of heat injury.

Some of the other drugs that are available and subject to abuse include the following:

- Ginseng. Harvested as a root, taken

in the form of a tea, it is claimed to enhance strength and sexual prowess.

- Amino acid supplements (processed protein, plant and animal). Although touted as a way to increase bulk, they have no advantage over a well-planned diet.

- Plant steroids. Various plant parts, touted as the "safe alternative" to anabolic steroids, offer no benefit.

- Mega-vitamins. Soldiers may take these on the assumption that if a little is good, a lot is better. Actually, though, water-soluble B and C vitamins taken in excess are excreted in the urine, doing neither good nor harm. On the other hand, fat-soluble A and D vitamins can be stored in harmful concentrations.

- DMSO. An anti-inflammatory cream, it is claimed to be safe but has not been approved for human use. It can decrease the pain from over-used soft tissue, but it has not been proved safe for the liver and kidneys.

- Cold capsules. Preparations such as Sudafed, Actifed, Entex, and Triaminic are used by some to help them sleep, by

others to stay awake, and still others to curb appetite.

This is a very short list of some of the substances available to and, unfortunately, used by our soldiers in the hope of improving their performance.

How well do the drugs work in fulfilling those hopes? Many of the claims made for over-the-counter and off-the-shelf training aids are unfounded; they may be advertised under personal testimonials or unpublished studies. Most drugs do have a placebo effect; that is, part of the reason a drug user feels the intended effect is that he expects to feel it. In the case of some of these drugs, however, there is a noticeable improvement in performance.

The ethical and moral issues in the use of ergogenic aids in a peacetime Army that is training for modern battle have not been considered here. Nonetheless, because of the widespread use of drugs by the general public—whether these drugs are legal or not—the Army should develop more awareness of them and educate its leaders and soldiers to

become more intelligent and healthier consumers.

Several sources of information and assistance are available to all soldiers and their leaders: Master Fitness Trainers, family physicians, brigade surgeons, the U.S. Olympic Committee's toll-free drug hotline (1-800-223-0393), and sports medicine physicians (board-certified family physicians who are trained in sports medicine). In the Army, sports medicine physicians include Major John Reasoner (Eisenhower Medical Center, Fort Gordon); Major Bill Roundtree (Martin Army Community Hospital, Fort Benning), Major Wade Lillegard (Madigan Army Medical Center, Fort Lewis), and me—Dr. John M. Henderson (6262 Hamilton Road, Columbus, GA 31995-9517; office (404) 324-6661, home (404) 568-3548.)

Dr. John M. Henderson recently completed an assignment at Martin Army Community Hospital at Fort Benning, Georgia, and has now returned to civilian practice.

Killing Enemy Armor

MAJOR JAMES B. LEAHY, JR.

As a member of the Army's Armor/Antiarmor Mobile Training Team, I learned (during visits to many of our Army's divisions, separate brigades, and major command headquarters) that many infantrymen and other combined arms leaders are still rigidly fixed to the principle of TOW missile employment that says "use standoff." This principle, which is typically perceived to mean "engage at maximum range," is applied to other weapons as well. It requires another look.

In an article in INFANTRY's January-February 1989 issue ("Weapon Position-

ing: The Circular Technique," pages 11-14), Lieutenant Colonel Pierce T. Graney and Dr. Robert H. Sulzen describe a shift in our defensive doctrine away from the concept of engaging an enemy force at maximum range and briefly provide some good reasons for it.

I would like to expand upon some of the issues and employment considerations they raised, placing particular emphasis on the TOW but also addressing the Bradley's 25mm gun and the M60A3 and M1 tanks' 105mm main gun (or 120mm for the M1A1).

(While all the information in this article is unclassified, I encourage infantry and combined arms leaders with SECRET or higher clearances to read (S) Training Circular 90-16, Antiarmor Operations on an Integrated Battlefield (U), Coordinating Draft, dated June 1988. As a result of responses from the field and information developed since the draft was published, the manual is scheduled to be distributed in February 1990.)

When the basic TOW missile was brought into the inventory nearly 20 years ago (1970), its primary target was

seen as a Soviet main battle tank carrying a main gun that delivered reasonably accurate aimed fire out to about 2,000 meters. The TOW, on the other hand, promised a high probability of hit (PH) and probability of kill (PK) out to 3,000 meters, which was then its maximum flight range.

The concept of using this difference in ranges, or TOW standoff, to kill tanks can be compared to the strategy a man might use for boxing against an opponent whose arms are only two-thirds as long as his—that is, keep himself far enough away so that the other fighter can't hurt him, while using his own longer reach to hurt his opponent.

That seems simple enough, but today, other factors have come into play:

Loss of Range Advantage. To expand on the boxing analogy, our enemy's arms are getting longer and his punches quicker. The November 1988 draft of Field Manual 100-23, Soviet Organization and Equipment, for example, cites the fielding of the AT-8 Songster anti-armor missile, which can be fired from the main guns of the Soviets' newer tanks such as the T-64Bs and the T-80s, and which reportedly has a range of 4,000 meters, some 250 to 1,000 meters greater than that of our different models of TOW missiles. (See table for a description of our currently fielded TOW missile systems and their primary characteristics.) The AT-8 is also reported to have a supersonic flight speed. This simply means that if a TOW gunner engages a Soviet tank that has this missile-firing capability at or near his TOW's maximum range and is detected, he may be hit by an AT-8 before his TOW missile can reach the target tank.

Enemy Suppressive Fire Capability. The Soviets continue to enjoy significant quantitative advantages in fire support, and they can bring massed fires from mortars and artillery to bear on identified antitank guided missile (ATGM) positions. Not incidentally, such positions are among the highest target engagement priorities for Soviet suppressive fires.

The sooner he can identify our ATGM positions, therefore, the sooner

we can expect not only indirect suppressive fires with high explosive rounds, but also obscuration fires of smoke and HE designed to cut down on our ability to acquire and engage targets. Using thermal sights can help reduce the obscuration problem, but not all our ATGMs can be tracked through smoke.

Likelihood of Frontal Engagement. Since the introduction of armor on the battlefield, we have seen repeatedly that the longer the range to a target, the greater the likelihood that the target will be engaged somewhere in its 60-degree frontal arc. This is the area where tanks have the most armor protection, of course, and are thus the hardest to kill. The recent fielding of tanks equipped with explosive reactive armor, which covers primarily a tank's 60-degree frontal arc, makes the problem of killing tanks even harder.

Lower Probabilities of Hit and Kill at Extended Range. In laboratory environments, many of our systems maintain a very high PH out to extended ranges. In the real world, however, several factors come into play that can cut down on our gunners' ability to acquire and hit targets.

For one thing, the image a target presents at three kilometers or beyond is tough to acquire and track, even with 12- or 13-power magnification. At that

range, the crosshair in a TOW sight often covers a large part of an armored vehicle target, especially if the vehicle is already partially masked by the terrain. Tracking is also often made tougher by heat shimmer rising from the ground's surface, or by blowing dust or smoke.

Maintaining a steady track on a target for periods of 10 to 12 seconds is well within the capability of most TOW gunners, but remaining steady and on the target for 20 seconds (almost the maximum flight range for 3,750-meter missiles) is a lot harder.

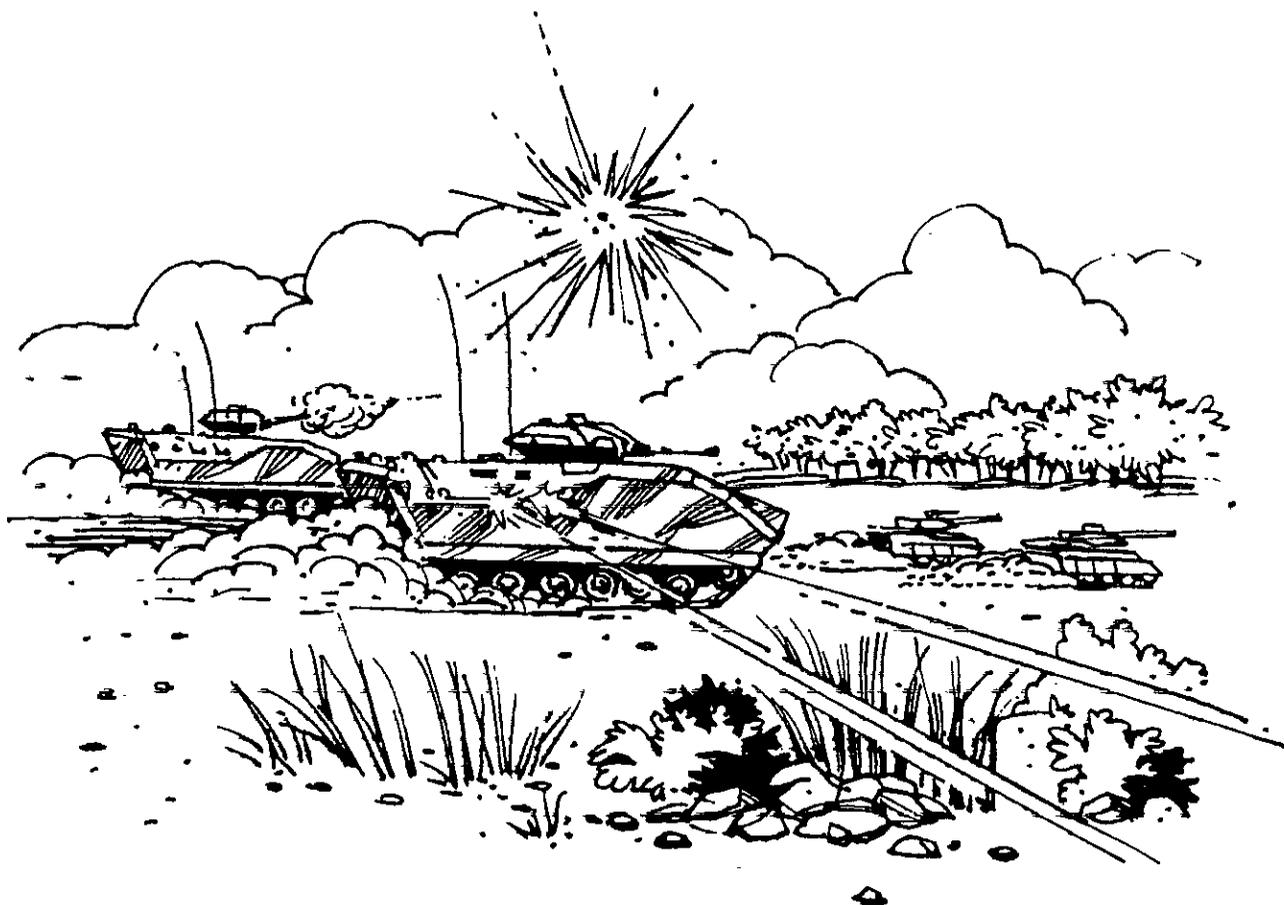
The TOW missile does not fly a straight line from launch to target. Rather, the launch motor propels the missile from the launcher, then the flight motor kicks in and eventually burns out. Once the flight motor stops, the missile is coasting. In fact, the missile oscillates up and down and, even if the crosshairs are steady on a target, requires a continuous series of corrections from the guidance system. At extended ranges, these corrections are slower and larger, and thus decrease the likelihood that a missile will hit the target where the gunner wants it to hit. When PH decreases, therefore, the chance that a commander will get the one-shot kill that he wants also decreases.

Loss of Surprise or Massed Fires. If we identify our positions for the enemy

Fielded TOW Missile Types

Type	Designator	Max Flight Range (Meters)	Warhead	Comments
Basic TOW	BGM 71A	3,000	5-inch unitary	
Basic TOW	BGM 71A-2	3,000	5-inch unitary	1
Basic TOW	BGM 71A-1	3,750	5-inch unitary	
Basic TOW	BGM 71A-3	3,750	5-inch unitary	1
Improved TOW	BGM 71C	3,750	5-inch unitary with probe	
Improved TOW	BGM 71C-1	3,750	5-inch unitary with probe	1
TOW 2	BGM 71D	3,750	6-inch unitary with probe	1,2
TOW 2A	BGM 71E	3,750	6-inch tandem with probe/tip charge	1,2,3

1. MOIC (Missile Ordnance Inhibit Circuit), which prevents fly-back of a missile in the event of a broken command link (wire).
2. Electronic countermeasure resistant when fired through TOW 2 launcher/subsystem.
3. Probe tip charge designed to defeat explosive reactive armor boxes, allowing main 6-inch warhead to work on basic hull armor.



by opening fire at extended ranges, we may lose two important, related advantages. First (assuming that we've done a good job of killing the enemy's reconnaissance elements), by identifying our positions, we give the enemy the option of maneuvering against us. Second, we lose the value of surprise, massed fires.

Taken individually, any of these factors may count against the traditional principle of using standoff and engaging at maximum range with the TOW system. Their combined effects, however, are so potentially crippling to our ability to mass combat power on an attacking enemy that we simply *must* change the way we routinely employ TOW missiles against enemy tanks.

I am not saying, of course, that a gunner should *never* engage targets with TOWs beyond two kilometers or so. But we as leaders need to recognize the problems that come with extended range engagements and the fact that these problems could be even worse if our

targets should be modernized Soviet tanks.

It is equally important for leaders to realize that the maximum ranges of other vital weapon systems, such as the Bradley's 25mm gun and the tanks' main guns, are also affected by the variables of target type and target aspects.

The 25mm gun on the Bradley, for example, is a versatile weapon that can accomplish several tasks with its two types of ammunition. Its high explosive incendiary-tracer (HEI-T) ammunition provides good suppressive fires and a limited kill capability against lightly armored vehicles. And its current armor-piercing discarding sabot (APDS) round is capable of defeating armored infantry personnel carriers and fighting vehicles, but within certain limitations.

Recently fielded armor improvements to the Soviet BMP family of infantry fighting vehicles, for example, may well cut down on the distances at which a Bradley can penetrate a vehicle's

frontal 60-degree arc with its current sabot rounds. (Bradley infantrymen need to know, however, that promising work is being aimed at developing a more effective 25mm sabot round.)

A Bradley gunner can still kill these newer vehicles, though, by using a combination of flank and rear shots, engaging at ranges closer than 2,200 meters, and firing more rounds into the target.

Many of the variables that work against TOW employment at extended ranges also apply to our tanks' main guns.

First, as good as our tank target acquisition equipment is, it suffers from some of the same limitations that affect the TOW daysight and the thermal sight.

Second, while it is true that explosive reactive armor offers little protection against kinetic energy (sabot) rounds, the frontal 60-degree arc of modern Soviet tanks is believed to be so tough to penetrate that even our current tank

main gun sabot rounds will have trouble getting one-shot kills at extended ranges. Here again, we face the historical fact that the greater the engagement range, the greater the likelihood that we'll be shooting at the 60-degree frontal arc of such vehicles.

The shorter employment ranges and the other compensating tactics and techniques mentioned above will allow us to overcome this deficiency without having to wait for the new and better ammunition that is already being fielded.

Finally, it is important to remember that the Soviets have not completely fielded their most modern tanks and infantry fighting vehicles. Most of their equipment, like ours, is fielded over a period of years.

Nevertheless, even our infantry and combined arms leaders who now face those front line Soviet divisions with the most modern equipment can still kill Soviet armor with the weapons they have today. To do so, however, they must have a good understanding of the

capabilities and the limitations of their own weapons and must employ them accordingly.

Major James B. Leahy, Jr., enlisted in the Army in 1972, and was commissioned in Infantry from OCS in 1978. He was formerly assigned to the Infantry School, where he served as a tactics instructor, doctrine writer, and project officer. He is now attending the Command and General Staff College at Fort Leavenworth.

Team Eagle

CAPTAIN MARK J. PERRY
LIEUTENANT MARC A. SIERRA

The time has come to reconsider the current modified table of organization and equipment (MTOE) for a Bradley infantry fighting vehicle battalion.

The J-edition MTOE has three main deficiencies: First, it creates an awkward and excessively large headquarters and headquarters company (HHC). Second, it leaves the Echo Company (the antiarmor company) with reduced resources and few unique missions. Finally, it gives the battalion commander no significant, cohesive force with which to fight the reconnaissance and counter-reconnaissance battle.

The solution to all three of these problems lies in restructuring the HHC and the Echo Company by removing both the scout and the mortar platoons from the HHC and attaching them to Echo Company to create a "Team Eagle."

Under the J-edition MTOE, the number of personnel (339) alone can force even the most energetic and capable of HHC commanders to spread himself too thin. Too, the company's structure in itself creates a conflict in missions for

the commander. In a garrison environment, for example, he is involved in daily mission-support activities that are essential in keeping both the battalion headquarters and his company functioning, while in the field he is the commander of the field trains. In both cases, his primary mission is support. With the scout and mortar platoons under his command, however, he is responsible for combat elements as well.

GUIDANCE

Although these platoons are usually led by two of the battalion's more capable senior first lieutenants, both still need guidance in planning and executing their training programs in garrison and in executing their combat mission in the field. Removing the scouts and the mortars from the HHC would not only help reduce its size to a more manageable level, it would allow the HHC commander to concentrate his full attention on his support functions. At the same time, it would place the scout and

mortar platoons in a combat organization whose commander could more properly supervise and guide their activities.

Meanwhile, with the introduction of the Bradley infantry fighting vehicle (BIFV), the Echo Company's assets were reduced from 20 improved TOW vehicles (ITVs) to 12, with the number of M113s remaining constant at four and the number of soldiers down to 65, a considerable reduction in resources.

The fact that the BIFV is also equipped with the TOW missile system has had a significant effect on the number and the types of missions an Echo Company can reasonably be assigned. For instance, in a movement to contact conducted by a task force equipped with M1 tanks and BIFVs, the Echo Company's ITVs might reduce the force's speed and mobility while no longer offering the unique addition of firepower that they once did.

As a result of the changes in his company's size and mission, the Echo Company commander is now in a position to assume additional responsibilities. Since he is concerned solely with

combat missions, controlling the scouts and the mortars would cause no conflict of priorities. The addition of these elements would bring the Echo Company's strength to approximately that of a rifle company; thus, command and control would not be a problem.

The strongest argument in favor of the creation of a Team Eagle is that it would give the battalion commander a significant, cohesive force with which to fight the reconnaissance battle. To demonstrate the way the current MTOE limits a battalion's ability to fight that battle, we need only look as far as the National Training Center (NTC).

Most units begin their NTC rotations with the scouts as the only element committed and trained for reconnaissance. After its first engagement or two with the opposing force, a unit almost always finds itself losing that battle—the scouts are either spread too thin to be effective or they are destroyed piecemeal. The results of losing this phase of the battle are disastrous.

In an attempt to correct this situation, a battalion will usually begin to place its BIFV or tank platoons forward to work with the scouts. Then, although there are enough forces forward, those forces are generally ineffective. Command and control is poor because, with two and sometimes three platoon leaders forward, no one is in overall command of the elements. The best a battalion usually achieves is to place the scout platoon leader in charge, under the direction of the S-2. Even in this situation the platoons are still dependent logistically on their separate company teams, and with the exception of the scouts, they probably have been instructed to retain as much combat power as possible.

Conflicting priorities are a natural product of this situation. A common example might run as follows: Team Tank is given the mission of defending BP 23. Within a few hours, an additional tasking comes down to provide a tank platoon to work forward with the scouts. At this point, Team Tank is torn between fighting two battles at once, one defensive and the other counter-reconnaissance. No matter what arrangement is used, under the current MTOE it will be an ad hoc organization

and any success it may achieve will be due more to chance than to design. This would not be the case with a Team Eagle.

A Team Eagle—three ITV platoons, the scout platoon, and the mortar platoon—would give the battalion commander a force both strong enough and cohesive enough to fight and win the reconnaissance and counter-reconnaissance battle. Obviously, this team has both the numbers and the firepower to accomplish the mission, and the ITVs



and the scout BIFVs would complement each other. The ITVs could cover the high-speed avenues of approach, and the scouts could concentrate on the dismounted or more difficult avenues; or the ITVs could remain static and the scout BIFVs could rove. Also, the mortars could support by fire, enabling the team to engage targets effectively without revealing its location.

No matter which specific technique was used, the entire team, especially the ITVs, would always have to be employed well forward because of the ITV's speed and maneuverability disad-

vantage in relation to both the M1 and the BIFV. This applies equally to offensive and defensive missions.

An example of the way this forward deployment in the offense might work would be as follows: The scouts would provide the covering force. The ITVs, mortars, and perhaps a tank platoon would form the advance guard. The BIFVs, with their speed and maneuverability, could move forward in bounding overwatch, while the ITVs continued to move in traveling overwatch. This would compensate for the difference in speed between the two types of vehicle.

The scouts would identify enemy positions either by visual observation or by coming under fire, at which point they would "hand off" targets to the ITVs. The ITVs and tanks, supported by the mortars, would suppress and fix the enemy positions through long-range fires. The scouts would continue to probe to the flanks. At this point, the battalion commander would have received firm reports of the enemy positions, would have fixed them with long-range fires and, most important, would have accomplished this without having his primary maneuver units decisively engaged. He would have retained his freedom to maneuver and to mass combat power at a point of his own choosing.

In summary, the Team Eagle concept offers many benefits. Command and control would be vastly improved. The entire reconnaissance effort would be under the control of a single company commander. And all the elements involved would receive their support and guidance from the same source, thus eliminating conflicting priorities.

This would be a tremendous improvement over the existing system, which frequently reduces the scouts and mortars to scavengers searching the battlefield for Class I, III, and V supplies. But the most significant benefit would be a company-sized element that was trained as a unit to fight the reconnaissance battle and to handle the advance guard mission as well.

It must be emphasized that Team Eagle would not be just a reincarnation of the old combat support company.

That company was primarily a garrison organization; once its battalion deployed to the field, the various elements were parcelled out and rarely, if ever, worked as a team. Team Eagle would be just that—a team—and the Echo Company commander would have control of all these elements both in garrison and in the field.

The current J-edition MTOE creates an imbalance in resources and deprives a battalion commander of an effective

reconnaissance and counter-reconnaissance force. The present HHC commander is overextended, while the Echo Company commander is underutilized. The creation of a Team Eagle would be an effective solution to these problems. It would concentrate combat power instead of dispersing it; it would establish a clear chain of command; and it would give the battalion commander a dedicated commander for his reconnaissance effort.

Captain Mark J. Perry, when this article was prepared, was commanding Echo Company, 3d Battalion, 7th Infantry at Fort Stewart. He previously served as an observer-controller at the National Training Center and as a scout and rifle platoon leader in the 1st Infantry Division, Fort Riley. He is a 1981 ROTC graduate of the University of South Florida, Tampa.

Lieutenant Marc A. Sierra led an ITV platoon in Echo Company, 3d Battalion, 7th Infantry. He previously served in Korea. He is a 1984 ROTC graduate of Florida International University.

The Case for A Unit Historian

LIEUTENANT ERIC W. STINEBRING

Esprit de corps, the pride a soldier feels for his unit, is not something that magically exists in one unit and not in another. It is developed in the minds of soldiers through a sense of their unit's history and traditions. Soldiers who have a strong sense of their unit's past and present develop a pride in and a sense of belonging to the organization. Because that spirit is a combat multiplier, it deserves the attention of all professional soldiers who seek to improve the combat readiness of their units. One method of improving a unit's esprit is to appoint a unit historian, preferably a junior lieutenant in the battalion who is genuinely interested in the unit's history and who is willing to devote some time and energy to developing a sense of esprit in his fellow soldiers.

Unfortunately, the role of unit historian has usually been given to the battalion adjutant. Since this is an additional duty, though, the S-1 generally pays little attention to it unless he happens to be particularly interested in the unit's past. Another problem is that an adju-

tant rarely serves more than 12 to 18 months in that position, which causes a high turnover rate in unit historians. A junior lieutenant generally stays in a battalion for three or four years, so his appointment as the unit historian affords greater stability for that position. It also allows the lieutenant's senior rater—the battalion commander—to evaluate his ability to write, organize, and work independently.

TOOLS

A unit historian has many tools that he can use to develop an effective history project. For example, the U.S. Army Regimental System (USARS), as outlined in AR 600-82, was created specifically to foster esprit in today's Army. The system not only gives all soldiers an opportunity to select a regimental affiliation that is meaningful to them but allows units to maintain ties with the past and develop a historical awareness in its soldiers.

A portion of the Regimental System

concerns the designation of Distinguished Members of the Regiment, as well as an Honorary Colonel of the Regiment and an Honorary Sergeant Major of the Regiment. These individuals—former members of the regiment who have contributed greatly to its history and traditions—can help a unit learn about its past through their personal involvement with the present organization. The distinguished member program adds considerably to a unit's efforts to develop esprit.

The unit historian should gather as much information as possible about his organization. An excellent place to begin is the U.S. Army Military History Institute, Carlisle Barracks, Pennsylvania. The research librarians there are most helpful and can provide a great deal of information.

An advertisement in the locator file section of *Army Times* requesting information about the unit can yield a wealth of information; even one response from a former member of the unit can unlock many other doors as well.

If a wartime unit association exists,

the association president can provide a list of former members of the unit, many of whom will be happy to write, share photographs, and furnish information. Additionally, if a unit historian has an opportunity to meet face-to-face with former members of the regiment, he will gain much by interviewing these eyewitnesses to the unit's history. (For more help, see also "Unit Histories: A Guide to the Agencies That Can Help," by Major Glenn W. Davis, *INFANTRY*, January-February 1987, pages 13-14; and letter, *INFANTRY*, July-August 1987, page 4.)

INFORMATION

As soon as the historian has collected some information about the unit's history, he should begin disseminating it within the unit. He might establish a column in the unit's newsletter, if it has one, and develop a fact sheet that focuses on significant events in the unit's history for use by promotion and soldier-of-the-month boards. He can prepare short lessons to share at a unit award ceremony or during professional

development training. In addition, he should keep the former members of the regiment informed about the current unit.

A unit historian can create many opportunities for soldiers to develop esprit. Here are some examples of history-related projects:

- Develop a display containing photographs of the unit, past and present.
- Create a wall commemorating the soldiers of the unit who have given their lives to secure the freedom the unit's soldiers enjoy today.
- Build a display honoring the former soldiers of the unit who have earned the Medal of Honor or the Distinguished Service Cross.
- Display photographs of the Distinguished Members of the Regiment and highlight the contributions these soldiers have made to the unit.
- Include former members of the unit in newsletter mailings and invite them to social functions.
- Have the soldiers in the battalion send Christmas cards to former members of the unit to ensure that they are remembered during the holiday season.
- Sponsor visits to the unit so that

former members can see first-hand what their unit is doing today.

Through an aggressive unit history program, today's soldiers can gain a meaningful relationship with those who preceded them. Through photographs, letters, and direct contact with the former members of the regiment, a unit can develop a stronger sense of itself, at the same time learning much useful information. When conducting after action reviews of simulated combat battles, the unit can draw upon the actual combat experiences from its past to illustrate key points.

A good unit history program should focus on the element that is universal and central in war—the soldiers who serve. A unit historian who is energetic and hard working can help create a sense of esprit in a unit, and as a unit develops esprit, it becomes stronger and more combat-ready.

Lieutenant Eric W. Stinebring, while serving as a platoon leader and company executive officer, has also served as unit historian for the 1st Battalion, 52d Infantry, Fort Irwin. He is a 1985 graduate of the Officer Candidate School at Fort Benning and holds a master's degree from Indiana State University.

COOP

The Commander's Organization Orientation Program

CAPTAIN MARK W. McLAUGHLIN

A professional officer, when the time comes for him to take command, wants to be as well prepared as possible. Many articles are written on the subject of preparing to assume command, but they normally concentrate on the change-of-command inventory and the unit's transition from one commander to another.

They seldom mention another aspect of assuming command—understanding the senior commander's intent, policies, and procedures, and what he expects.

A new company or battalion commander will receive an in-briefing from his senior commander, of course, but the discussion probably will not include

the requirements of day-to-day activities and reports. Each unit has policies and procedures that have developed through habit, location, and mission, and its commander's intent and interpretation of Army policies and procedures. To be effective, an incoming subordinate commander must learn to use and under-

BRIEFER	SUBJECT
Executive Officer	Commander's philosophy and leadership concept. Command and staff relationships. IG and command inspections and the latest results. Officer Professional Development Program. Unit tours and social events. Maintenance program. Safety program.
S-1	Strength management policies and procedures (daily status, PAI, SIDPERS). Personnel management policies and procedures (EERs, awards, promotions, NEO). Legal policies and procedures (administrative actions, Article 15s, traffic points). PAC procedures (personnel actions, hours). Publications management and administrative support. Unit safety program. NEO program. Promotion status.
S-2	OPFOR intelligence briefing (SAEDA, GDP). OPSEC policies and procedures. Physical security/crime prevention. IPB of GDP sector.
S-3	Commander's training philosophy and guidance. 18-month overview of training events. General Defense Plan and War Plan overview. Unit battle drills and alert procedures. Unit-particular training events, procedures, and philosophies. CCT, SQT, EIB, EFMG testing procedures. Training aids, areas, support requests. NCO school policy (BNCOC, PNCOC, ETS). Special training opportunities. APRT procedures and daily PT activities. NBC policies and procedures. Off-duty education policies. Partnership activities. Post support schedule and requirements. Ammunition allocations. Training budget.
S-4	Supply policies and procedures. Local purchase procedures. Property book management. Commander's guidance on inventories, accountability, surveys, and inspections. Inspection procedures of sub-unit areas (supply rooms, mess facilities, support). New equipment fielding. Report of survey procedures. Change-of-command inventories.
BMO/BMT, if separate	Maintenance policies and procedures. ADAP procedures. PLL procedures. Dispatching procedures. Drivers training and awards program.
Senior Medical NCO/PA/MD	Sick call procedures. Profile policy. Weight control program. Drug and alcohol program. Hearing conservation program. Field medical support.
Command Sergeant Major	Policies and procedures of unit NCO corps. CSM procedures with sub-unit senior NCOs. NCO professional development program. Senior NCO assignment program.

stand these unique procedures.

The Commanders Organization Orientation Program (COOP) was developed in the 1st Brigade of the 1st Armored Division to introduce incoming battalion commanders to the policies and procedures followed within the brigade. It has also been adapted to other levels of command and for other purposes such as a junior officer professional development orientation of staff functions or an in-briefing for new staff officers.

Most new company commanders, for instance, are selected from among the staff officers within a battalion, but they are not likely to be as familiar with the command policies or procedures as they need to be to function as effective commanders. A former battalion S-4 may well know the commander's policies on supply and procurement, but he probably will not have concentrated on the requirements for the unit training schedules or the procedures for handling the communication operation instructions or the promotion roster.

Under the COOP program, the executive officer or senior NCO of the new commander's unit schedules a series of briefings for him before he assumes command, preferably all on the same day. An example of the subject areas that might be covered is shown here.

A briefer must remember that an incoming commander will meet many new people, learn many new facts, and therefore should not be expected to remember everything he hears. Accordingly, much of the material—such as SOPs, policy letters, or other documents—must be in the form of handouts. (Handouts also keep a briefing short and save time.) A briefing session should include an introduction to the key personnel and a short tour of the work places but should not be used as a social call.

Through such briefings, a new commander can be indoctrinated into the way things work on a daily basis. Each staff officer will have a chance to emphasize the areas he thinks the new commander should know about. The command sergeant major will also have a chance to talk to the new commander from an NCO's point of view. And the

executive officer will have an opportunity to watch his staff organize and prepare a briefing and to redirect priorities for them as needed.

This program has proved quite useful

for orienting new commanders at company and battalion levels, for in-briefing senior level staff officers, and for helping to see that a staff has its priorities in the best order to support the commander.

Captain Mark W. McLaughlin—formerly a company commander in the 7th Battalion, 6th Infantry, 1st Armored Division—is now assigned to the 1st Special Operations Command at Fort Bragg.

48 Hours

Fighting the Reserve Component Battle

CAPTAIN GERMAN J. VELEZ

One Army—One Standard. This is the motto that combat arms commanders, whether Active Army or Reserve Component, must set as a goal for their units' training. As the time margin between mobilization and battlefield commitment shrinks, achieving combat readiness, particularly in the Reserve Components, is the highest priority. The units that survive the confusion and physical exhaustion of the first battle of the next war will be the ones that have trained their leaders to be fighters, not training managers.

What makes this such a challenge is the relatively small amount of time a Reserve Component company commander has that can be used for actual training. For example, an urban-based unit such as the 2d Brigade, 42d Infantry Division, in New York, has only ten training days a year for ARTEP training aside from the annual training period, which is set aside for ARTEP evaluations. And too often, training restrictions such as the lack of suitable training sites close to the armory further reduce the usable time in a 48-hour weekend training period to six or eight hours.

To make better use of those 48 hours, a commander must take several steps. First, he must look at an upcoming ARTEP weekend not as a training event but as the first battle of the next war his

company will fight. Then he must train to win that battle.

About 60 to 90 days before the drill, he should review his mission essential task list to see which ARTEP missions and sub-tasks his company needs the most work on—for example, a platoon defense, or a movement to contact and hasty attack. Next, he must select the platoon that is to be tested and advise that platoon leader of the ARTEP mission he is to perform. He might decide, for example, that his 1st Platoon will conduct a platoon defense, and he will task organize the rest of his company to oppose that platoon.

CHALLENGE

In effect, he challenges one of his platoon leaders to battle. Then, forced to rely on his capabilities and those of his platoon to accomplish his mission, the platoon leader can use the remainder of the time before the drill preparing his platoon for its mission.

The company commander should select a training site that will allow his units to maneuver in both daylight and nighttime conditions. He should then have his first sergeant prepare a roster of the people who will not be available for training (because of schools, medi-

cal restrictions, driver training, and the like). Soldiers listed on this roster can be used as drivers to transport the troops and for other support details such as KP and guard duty. In the meantime, the company executive officer—working with the supply, training, and administration sergeants—hammers out the administrative details to support the mission. This frees the commander and his leaders to concentrate on the upcoming battle.

Finally, the commander should coordinate with his battalion headquarters for a controller-evaluator team to control the play during the exercise. (Instead of setting up the training schedule to run from 0700 to 1700, a commander should schedule his exercise—minus support, administrative personnel, and drivers—to run from 1200 Saturday to 0600 Sunday.)

The exercise should be conducted as it would be at the National Training Center with free play between the sides. The time for meals, resupply, and rest would be dictated by the tactical situation that the company commander controls and stimulates from his command post. By creating as realistic an environment as possible, he can expose all the elements of his command, from platoon leader to rifleman, to the shock and confusion of battle. This also allows

SAMPLE WEEKEND FTX DRILL SCHEDULE

TIME	EVENT	OIC/NCOIC
Sat. 0700	First formation.	
0700-1000	Prepare for deployment.	First Sgt
1000-1130	Deploy to training site.	Plt Sgts
1200	FTX begins, platoons deploy to start points. Begin tactical operations: 1st Plt: Conduct Defense. Combined 2d and 3d Plts: Conduct Movement to Contact and Hasty Attack against 1st Platoon. Food and resupply as tactical situation permits.	Co Cdr Co Cdr
2000	Personnel not in FTX end work day and rest.	XO/First Sgt
Sun. 0600	FTX ends. Troops recover from field while commander conducts AAR.	Cdr/Plt Ldrs
0700	Breakfast.	
0800-1000	Prepare for return to home station.	First Sgt
1000-1130	Company re-deploys to home station. (Rested support personnel used as drivers)	Plt Sgts Co Cdr
1130-1230	Lunch.	
1230-1630	Maintenance.	First Sgt Co Cdr
1700	Final formation and dismissal.	Co Cdr

him to monitor the reactions of the leaders as they respond to continual changes in the tactical situation.

While the soldiers recover from the FTX, the platoon leaders and the controller-evaluator team should be gathered for an after action review. The commander goes over the key points and the highlights of the battle from beginning to end, and also asks the controller-evaluators to make their assessment.

As an epilogue to the exercise, he

should schedule a separate in-depth review session with the platoon leader whose platoon is being evaluated. He should analyze the platoon leader's conduct through the entire range of the battle from preparation to execution to recovery (see accompanying sample schedule).

If a commander uses this plan, he will achieve the following results:

- Make effective use of the hours of darkness.
- Increase the training time available

from 6 to 8 hours to 12 to 15 hours of continuous training.

- Rigorously test junior officers and NCOs, identifying those who show initiative and the warrior spirit, and then use these leaders to improve the command climate of the company.

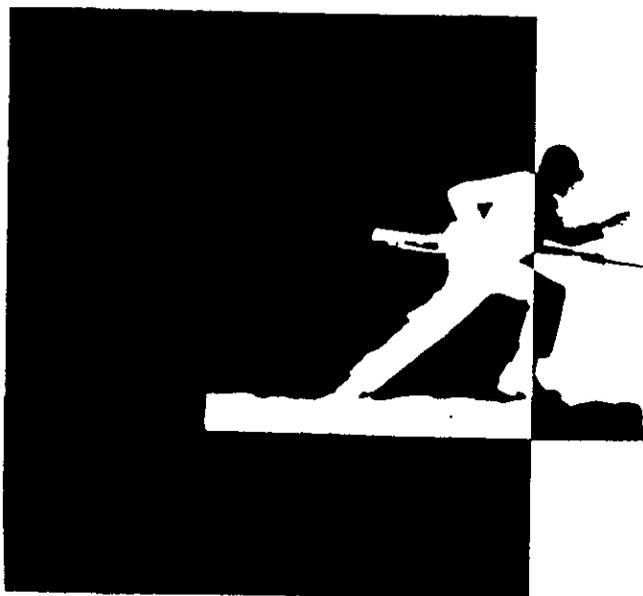
- Test the company's SOPs to see if they can stand the stress of non-stop operations. (Then he can use the results to tune up those SOPs and bring them up to standard.)

- Identify weak areas that he can prepare to deal with next time.

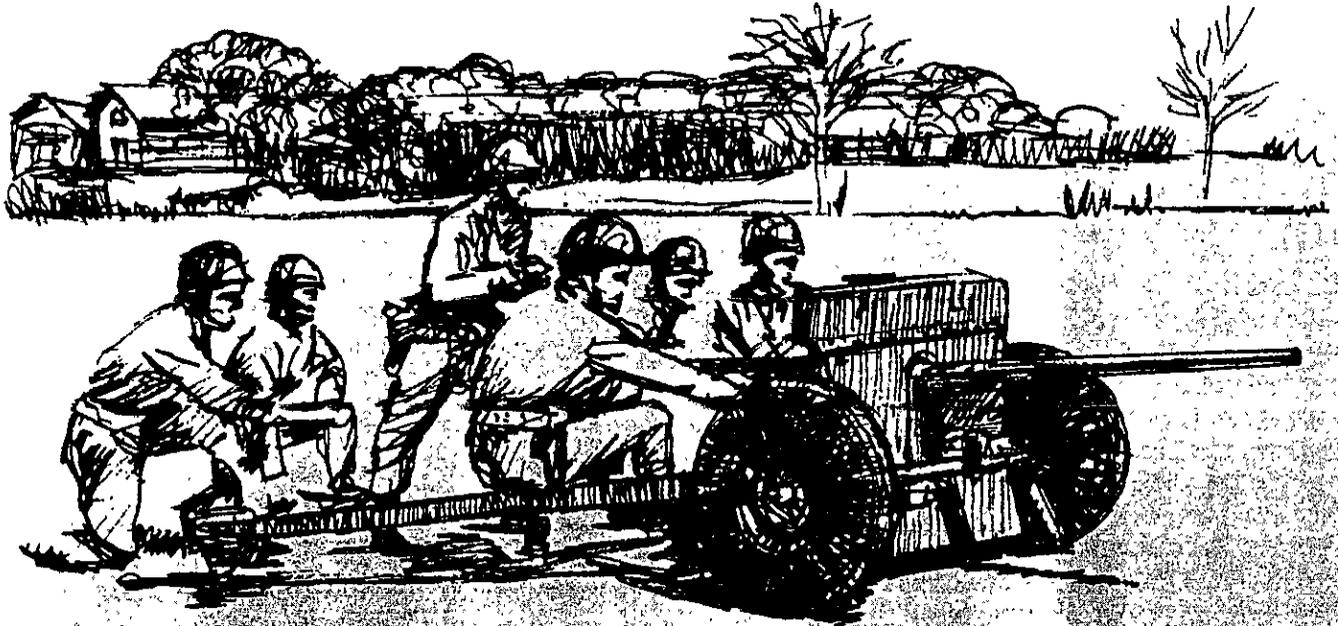
If a commander uses the lessons learned during these 48-hour FTXs, by the time his unit's ARTEP evaluation comes around during annual training, his company should have a system that is ready to meet the challenge and come away with better ratings.

Most important, the commander can use the experience to change the climate and direction of his training effort from one of training for training's sake to one of training for war.

Captain German J. Velez is assistant S-3, 2d Brigade, 42d Infantry Division, New York Army National Guard. He served on active duty as a light cavalry platoon leader and troop executive officer, squadron motor officer, rifle platoon leader, and assistant squadron S-3.



KMAG AND THE 7TH ROK DIVISION



LIEUTENANT THOMAS A. HALL

AUTHOR'S NOTE: On 25 June 1950, eight divisions of the North Korean People's Army, the Inmun Gun, poured across the length of the 38th parallel into the Republic of Korea (ROK). The all-out invasion caught the ROK Army and its United States advisors, the Military Advisory Group to the Republic of Korea (commonly referred to as KMAG), completely off guard. Seoul fell within three days as North Korean forces overwhelmed the defending ROK Army.

Little has been written about the initial days of the Korean War. ROK Army accounts are of dubious accuracy, and KMAG did a better-than-average job of destroying its few records when it withdrew to Japan.

One of the few scholarly attempts to record the history of KMAG is Major Robert K. Sawyer's Military Advisors in Korea: KMAG in Peace and War. Sawyer's account was recorded mainly from interviews with KMAG officers, most of whom were in Seoul when the war began. Thus, the 7th ROK Division's defense of the Uijongbu Corridor was scarcely mentioned, even though the Inmun Gun's main effort against Seoul was directed through this corridor.

The small body of material on the ROK Army that is currently available to students of military history is generally rather poor. The impression most contemporary Korean War historians convey is that, while a few fanatical ROK soldiers with grenades rushed North Korean tanks in suicidal "banzai" charges (conforming to the typically pseudo-Japanese stereotype of Asian soldiers in U.S. history), the ROK Army as a whole disintegrated at the first sight of North Korean tanks and its soldiers fought like raw recruits.

Fortunately, though, not all KMAG records were destroyed. As KMAG advisors to the 7th ROK Division at Uijongbu watched North Korean forces advance closer to the city, they initiated a planned withdrawal. A KMAG clerk, my father, who was ordered to destroy all of the detachment's records at Uijongbu dutifully did so, except for one document—the daily journal of the KMAG detachment at Uijongbu for 1950. The journal describes in great detail the events of 25 and 26 June. This previously unpublished journal forms the basis of this article and sheds considerable light on those dark and confused days of 1950.

The 7th Infantry Division of the ROK Army had been activated on 22 January 1949 and had gone through numer-

ous changes before the war broke out. Although the 7th Division was activated with the 1st, 9th, and 19th Regiments,

ROK Army Headquarters in Seoul had a practice of moving units around to balance out discrepancies in readiness between the divisions of the expanding ROK Army.

On 25 January 1950, therefore, the 19th Regiment was transferred from the 7th to the 5th Division in exchange for the 3d Regiment. Then, on 15 June (only ten days before the invasion), the 3d Regiment was transferred to the Capital Division and moved to Seoul. Its replacement, the 25th Regiment, was newly activated and consisted entirely of untrained recruits. When war came, the 25th had not yet made the move to Uijongbu, although the 3d had already relocated to Seoul.

Underequipped by U.S. standards, the 7th Division had the best equipment then available to ROK forces. The soldiers' rifles and ammunition were of World War II vintage, but at least U.S.-made equipment had replaced all of their captured Japanese weapons. They had 57mm antitank guns and 2.36-inch rocket launchers, although both had been obsolete since 1944 and their ammunition was old. Too, there were few antitank rounds for the 57s, while the weapon's high explosive (HE) rounds could disable a tank only if a gunner made an incredibly skilled or extremely lucky shot.

The K MAG advisory staff was undermanned, as was the entire advisory group throughout the Korean peninsula. Each ROK infantry division was supposed to have a K MAG contingent of 13 officers and 14 enlisted men. In June 1950, the K MAG staff with the 7th Division at Uijongbu had only nine officers and six enlisted men (five of them NCOs), or just over one-half of its authorized strength. The only other Americans in the area were Central Intelligence Agency personnel who had set up field offices in Tongduchon and Pochon on 25 March.

Despite operating shorthanded, the advisors put extraordinary efforts into trying to transform the division's raw recruits into disciplined, fighting soldiers. Occasionally, their training was rather innovative—in April, for example, 20 North Korean-trained guerrillas who had defected to the south were employed to teach guerrilla tactics to the 7th Division troops.

In May, the staff of the 7th Division coordinated defense plans with the 1st Division on its left and the 6th Division on its right. The division went through inspections and field evaluations about every two weeks during early 1950, the last being a tour of the division area by U.S. Secretary of State John Foster Dulles on 18 June, just seven days before hostilities began.

The first warning that the *Inmun Gun* was massing for an attack came two days before the actual invasion. On Friday, 23 June, First Lieutenant Gordon D. Mohr, advisor to the 2d Battalion of the 9th Regiment, reported North Korean trucks rolling down to positions along the border and then returning north empty.

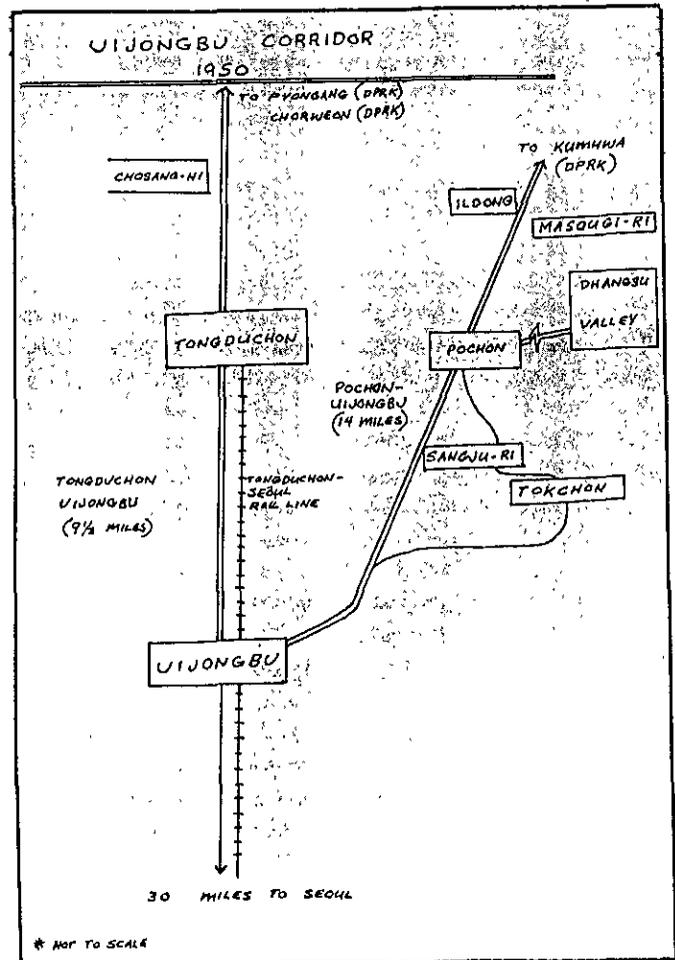
Inexplicably, Lieutenant Mohr's report failed to alert anyone in either Uijongbu or Seoul that a major attack was in the making. It was a Friday afternoon, and in the hot Korean summer of 1950, the ROK soldiers and U.S. advisors of the 7th Division thought only of relaxing over the weekend in

Seoul. At the end of the day, weekend passes were handed out as usual, and most of the K MAG members left to join their families in the capital.

What Lieutenant Mohr could not see was that the *Inmun Gun* has massed two full infantry divisions, two regiments of an armored brigade, mounted horse cavalry, and border constabulary units just across the border in the city of Chorwon. The North Korean 3d and 4th Divisions, supported by the 107th and 109th Regiments of the 105th Independent Armored Brigade, were scheduled to lead the main thrust of the invasion along the Pyonggang-Uijongbu and Kumwha-Uijongbu roads (see accompanying map).

Both the 3d and the 4th Divisions were among the best and oldest in the North Korean People's Army; most of their soldiers had served in the ethnic Korean units of the Chinese People's Army and had been released in 1948 to form the core of the *Inmun Gun*. The 105th Independent Armored Brigade fielded the excellent T-34 tank—the reliable workhorse of the Soviet Army that had seen service from its introduction in the mid-1930s and would continue to serve until well into the 1960s.

The North Korean plan of attack called for the 4th Division and 107th Armored Regiment to push through Tongduchon to Uijongbu—the most direct route to Seoul. (This same force would be the first to encounter U.S. troops in Task Force Smith at Suwon a few days later.) The North Korean 3d Division and 109th Armored Regiment were to attack



through Pochon to the east; both forces were expected to brush aside the numerically inferior ROK forces and link up to assault Uijongbu. They were expected to be the vanguard of the North Korean effort to capture Seoul.

At 0545 on 25 June, the cool Korean morning was shattered by North Korean artillery and mortar fire falling on Company G of the 1st ROK Regiment at Chosang-ni. The company reported a barrage of 120mm mortar and 124mm artillery fire hitting its positions and the village. At 0600, a battalion of infantry moved south against Company G.

Just as the *Inmun Gun* units started their move across the border, the 7th ROK Division Headquarters went on alert. The enemy fire had alerted those KMAG advisors still at Uijongbu. Corporal Dean D. Hall, the KMAG clerk, was one of the six enlisted soldiers and two officers present that morning. When the first shots were heard, he jumped into his jeep and drove to the 7th Division's headquarters. As other KMAG staff members arrived, they notified KMAG headquarters in Seoul of the attack and began to recall advisors from their homes. It was 0630 before the senior advisor, Major Joseph W. Bilello, was located and notified of the alert. He did not arrive at Uijongbu until 0845.

As other KMAG advisors worked to coordinate operations, Captain Bobbie B. Ford, a 1st Regiment advisor, and Sergeant John H. Yerby, a radio operator, left for Tongduchon in a radio truck. At 0700 a radio message from Seoul confirmed that attacks were occurring along the length of the border. Fifteen minutes later, a battalion of the 1st Regiment had been collected and had begun moving by truck to Tongduchon. A battery of the 7th ROK Field Artillery Battalion followed it north.

ARTILLERY SUPPORT

By this time, Company G, 1st ROK Regiment, had been defending Chosang-ni against a battalion of North Koreans for more than two hours. Unfortunately, its artillery support, a battery from the 7th ROK Field Artillery Battalion, was garrisoned at Uijongbu and did not have its 105mm howitzers set up in forward fire bases. Running low on ammunition, Company G was forced to withdraw south toward Tongduchon, and at 0800 North Korean troops occupied Company G's positions. Runners from Chosang-ni reported numerous tanks leading the North Korean thrust into the village. The supporting battery of ROK artillery arrived 45 minutes later, too late to support the defense of Chosang-ni. The 40 surviving soldiers of Company G reported in at Uijongbu the next day.

The North Koreans then fixed their artillery on Tongduchon and by 0930 had dropped between 400 and 500 rounds on the city. The collapse of Chosang-ni had allowed the enemy to occupy some of the positions of the 2d Battalion, 1st ROK Regiment, and push two miles into the regiment's sector. Five tanks pressed the attack through Chosang-ni; one T-34 was knocked out by the 57mm antitank guns of the 2d Battalion's antitank platoon. Captain Ford reported that

the enemy thrust was centered along the Tongduchon-Uijongbu rail line.

The second thrust of the *Inmun Gun* began on the 9th ROK Regiment's positions to the east of Tongduchon. The soldiers of Company G defended their positions at Ildong against an overwhelming force from the North Korean 3d Division and its supporting armor from 0530 until 1000, when its dwindling ammunition and mounting casualties made its positions untenable. Denied reinforcements, as none were available, the survivors of Company G began to carry their wounded toward Pochon. The 9th ROK Regiment commander ordered his antitank platoon to withdraw when the T-34s stopped 700 meters out of range and began to shell its positions.

Meanwhile, one of the most unusual engagements of the day took place at the positions of Company E, 9th Regiment. Located in the isolated Dhangsu Valley on the eastern edge of the 7th ROK Division's sector, Company E suddenly found itself surrounded by North Korean horse cavalry. Cut off from reinforcements, Company E was soon overrun, and only a handful of survivors made it back to the rear.

ENEMY ADVANCES

As the enemy advance pressed into the 1st and 9th regimental sectors, the recently transferred 3d ROK Regiment was ordered to move north from Seoul to join the 7th Division. At 1030 another battery of artillery moved out of Uijongbu, this time to support 9th Regiment positions at Masougi-ri and Pochon. Although Tongduchon continued to draw enemy artillery fire, two battalions of the 1st Regiment held the line against the *Inmun Gun* attackers.

By 1100, however, North Korean armor threatened the line at Tongduchon. ROK bazooka teams, armed with 2.36-inch rocket launchers, were dispatched from Uijongbu to block the approaches to Tongduchon and Pochon. An additional battery of artillery, under the direction of Lieutenant John W. Airsman, the KMAG Field Artillery advisor, left Uijongbu to reinforce the 9th. (The commander of the 7th Field Artillery Battalion arrived just as his last battery was leaving the gates enroute to Pochon; a ROK first lieutenant had commanded the battalion until now.) The North Koreans continued in their attempts to breach the 9th Regiment's lines, pressing the 3d Battalion at Masougi-ri and capturing a vital bridge into the city. Enemy artillery located the regimental company post, and began to shell it regularly.

At noon, the 3d Regiment and the School Battalion of Field Artillery left Seoul to assist the 7th Division, a one-and-one-half-hour trip. Meanwhile, North Korean troops had crossed the Imjin River on the left flank of ROK 1st Regiment, and the ROK defenders were falling critically short of ammunition, particularly artillery rounds. Twelve minutes after American ambassador John Muccio announced at 1300 that North Korea had declared war on the south, three artillery batteries in the 1st ROK Regiment's sector fired their last rounds and withdrew from the battle.

As the troops ran low on ammunition, they were faced with



Main Street, Uijongbu, January 1950

an enemy now swarming on their flanks. Lacking friendly artillery support, the ROK troops began to fold. Two platoons of engineers, carrying 100 pounds of TNT, departed Uijongbu to join the units in contact. An antitank company arrived from the School Battalion and was immediately sent to Pochon with instructions to "chase tanks." Three companies of the 1st ROK Regiment (Companies I, L, and M) were still at Uijongbu trying to round up soldiers who were straggling in from Seoul.

By 1445 two enemy tanks had made an end run to the south of Pochon, while ten had pushed into Tongduchon itself. All of the 3d ROK Regiment arrived at Uijongbu shortly thereafter. KMAG regimental advisor, Major Perley A. Washburn, directed its 2d Battalion to support the 1st Regiment, while the 1st and 3d Battalions moved to assist the 9th. The North Koreans, held up for more than nine hours by the stubborn defenders of Tongduchon and Uijongbu, called forward the bulk of their armor to punch through the steadily weakening 7th ROK Division's lines.

In spite of the arrival of ROK reinforcements on the battlefield, by 1745 the 7th Division's defenses were near collapse. Forty enemy T-34s had entered Pochon, with two reaching the police station in the center of the town. Enemy infantry captured the meager ammunition dump. Lieutenant Mohr had taken command of two 57mm antitank guns and

had attempted to stop enemy tanks at the bridge north of Pochon, although the antitank section had run out of antitank rounds and had to fire HE at two tanks. The tanks returned fire and destroyed the guns and their jeeps. Lieutenant Mohr withdrew with his surviving ROK soldiers on foot; he reported in at Seoul the next day, having walked the distance with his small group.

As the North Korean 3d Division pushed into Pochon, the scene turned chaotic. Two battalions of the 9th ROK Regiment were surrounded and cut off. The 7th ROK Division commander ordered all available artillery to flatten Pochon in an attempt to drive out the North Korean tanks. All communications with the forces in Pochon were lost; four hours earlier, enemy artillery pieces had found their range to the regimental command post and had hit it with 14 well-placed rounds. Only 11 men had survived the barrage.

In the melee, ROK antitank guns knocked out four more T-34s. Captain Edward L. Sievers, a 9th ROK Regiment advisor, was ordered to observe the destruction of Pochon by ROK artillery, but the artillery batteries had already expended nearly all their ammunition and the razing of Pochon never occurred. However, he did see the North Korean horse cavalry from the Dhangsu Valley ride into Pochon. By 1900 Pochon had fallen.

ROK forces fell back to form a reserve line of defense. The

commander of the 1st Battalion, 9th ROK Regiment organized 100 National Policemen for defense and was told that 50 more were on the way. Lieutenant Airsman reported that the 9th had formed a defensive line at Sangju-ri. The 3d Regiment was a position but wanted to withdraw three miles farther south.

Not wanting to lose the momentum of their assault, the North Koreans pressed on toward their link-up point as the sun set on the first day of the war.

At 2030 four tanks broke through the defenses at Sangju-ri and headed for Uijongbu. ROK antitank squads began to pull back, and communications were lost with both the 1st and the 9th Regiments. By 2055 some North Korean tanks were within six miles of Uijongbu. The 7th ROK Division had established that city as its last line of defense, beyond which the unit would be too spent to operate as an effective fighting force. Three antitank guns, a .50 caliber machinegun, and numerous 2.36-inch rocket launchers were set up north of the city at a bridge on the road to Pochon. The bridge was also rigged for demolition in case the weaponry failed to stop the tanks. The ROK antitank company at the bridge could not get any antitank ammunition and had to make do with HE rounds.

North Korean tanks closed to within four miles of Uijongbu. One T-34 was put out of action when it hit a ROK two-and-one-half-ton truck that had been left in the road as an obstacle. The tank slipped off the narrow road and flipped over into a rice paddy. At about the same time, members of a ROK horse cavalry platoon that had been used mainly for parades in Seoul rode into the division area and offered their services. By 2105 Tongduchon had fallen and was burning; enemy infantry moved south of the city to engage the 1st ROK Regiment's command post.

ASSESS PROGRESS

Major Bilello, assessing the progress of the North Koreans, ordered all KMAG advisors to the Uijongbu compound, although not all would or could obey his order. Lieutenant Airsman chose to stay at the bridge north of the city with the ROK antitank company. Both the advisors and the ROKs expected the *Inmun Gun* to push their attack through the night, driving through to capture Uijongbu by morning.

That goal certainly seemed within the reach of the *Inmun Gun*—the 7th had been fighting a punishing delaying action all day and was exhausted. Thus, it was curious that at 2100 that evening, the North Koreans halted their advance approximately five miles north of Uijongbu. This gave the ROK units a chance to rest and rearm, and allowed the 7th its first opportunity to take the fight to the enemy.

The lull also allowed ROK units to shift and reinforce their defensive positions; the ROK 2d Division arrived and moved in to relieve the battered 9th Regiment. The 7th moved its remaining forces, including the 3d ROK Regiment, into the 1st Regiment sector. Tank hunting teams moved out into Sangju-ri and Pochon in desperate attempts to hurt the armored strength of the attackers. The teams located 25 tanks

in Pochon and five in Sangju-ri; they destroyed two. By this time, the 7th Division had knocked out 12 tanks (the 9th Regiment had accounted for seven of these, while the 1st scored the other five).

Although casualty counts and unit strength reports came in, they were wildly inaccurate, and thousands of troops were unaccounted for. Some, such as Company E in the Dhangsu Valley, were almost certainly wiped out. Others simply lacked radio contact with their commanders and could not report.

At 0100, KMAG headquarters in Seoul notified the advisors that Operation Fireside, the evacuation of American dependents, was in effect. All civilians were to depart from Inchon to Japan between 0300 and 0530 that morning.

The U.S. personnel in and around Uijongbu knew, however, that their fight was far from over. Tank hunting teams moved north to Tokchon and then swung west to Sangju-ri to lay mines north and south of the village along the main road. Efforts to consolidate and reorganize were hampered by refugees fleeing to the south.

The remainder of the night was spent improving positions and planning the defense of the city. Units continued to arrive from Seoul. The 5th Regiment of the 2d Division, plus the 18th, 16th, and 24th Regiments as well as a company of horse cavalry, moved into the Uijongbu Corridor to aid the 7th. The 3d Regiment consolidated its positions and began implementing a plan to destroy strategic bridges and isolate tanks north of the city. The 9th Regiment had effectively delayed the advance, but at a terrible cost; the next day, only 23 officers and 345 soldiers could be accounted for.

IMPROVED MOOD

The mood began to improve among the staff and officers of the 7th. While Tongduchon had fallen, it had been reported that the North Koreans had lost six tanks, 400 soldiers, and 60 horses during the pitched house-to-house battle for the city. It seemed that, although outmanned and outgunned, the 7th Division was giving a good account of itself.

Noting the recently arrived fresh units, the ROKs ordered a counterattack on Tongduchon for 0900, 26 June, but it began poorly and ended in disaster. The plan of attack called for the 7th and 2d Divisions to attack abreast of each other, their sectors divided by the Tongduchon-Uijongbu road. The 1st and 18th Regiments, eager to begin, evidently had crossed their line of departure early and had closed to within two miles of Tongduchon by 0905. Here they ran into heavy opposition and their casualties began to mount.

Meanwhile, the 2d Division had not yet crossed the line of departure. It reported meeting opposition, but later inquiries discovered that because the division commander had disagreed with the plan of attack, he had procrastinated in executing it. Four hours into the counterattack, the 2d Division was only seven kilometers north of Uijongbu.

The 7th Division pressed on, unaware that its flank was now exposed. The 3d Regiment had units north and south of

Sangju-ri and had retaken the vital road into the village. The 1st Regiment was on the outskirts of Tongduchon, but its counterattacks on the city cost 12 killed, 80 wounded, and 200 missing or unaccounted for. Meanwhile, North Korean forces rushed through the vacant 2d Division sector toward Uijongbu.

At 1115, mortar fire began to fall on Uijongbu. It was then that the full impact of the flawed counterattack became known. The North Koreans had been able to press toward the city while the 7th Division expended the last of its resources attacking Tongduchon. When the 1st and 18th Regiments were finally ordered to withdraw at 1330, enemy forces were already well to their rear. Three enemy artillery pieces (150mm or 170mm) began to fire on Uijongbu at 1240. Troops in Uijongbu began to panic; the 2d Division began to pull back, as did a battery of ROK artillery.

Other ROK artillery batteries continued to fire. They hit and disabled two tanks, and the 2d Division infantry units destroyed another three T-34s. The 1st and 18th Regiments attempted to fight their way south, but it was too late. They were too low on ammunition and troops, and their own lines at Uijongbu had disintegrated too rapidly. While the North Korean 4th Division shelled Chongdong and Uijongbu, their 3d Division swarmed toward the fleeing ROK 7th Division.

At 1500 mortar and artillery fire began to hit the division command post. Recognizing the situation as hopeless, KMAG ordered all advisors to move to Kimpo Airfield for evacuation. Corporal Hall and the rest of the KMAG staff drove through the chaotic, refugee-filled streets of Seoul to report in at KMAG headquarters and then turned toward Kimpo. As planes arrived to pick up the advisors, the soldiers emptied rounds from their pistols into the engines of the jeeps to disable them.

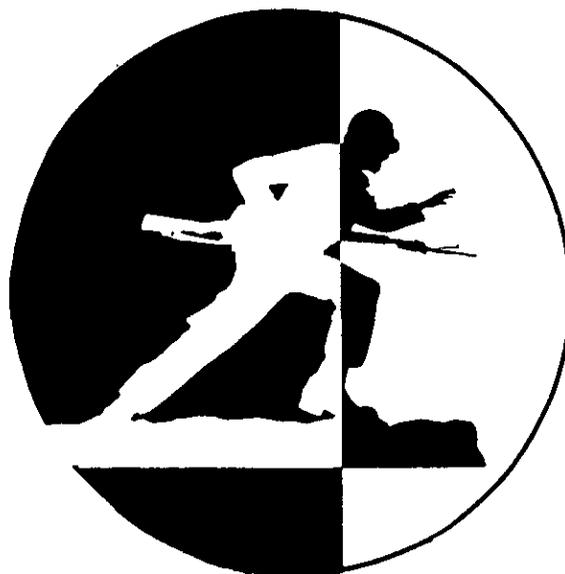
At approximately the same time their planes touched down

in Sasebo, Japan, North Korean infantry and armor overran the last of the Uijongbu defenders and captured the city. While the remnants of the 7th contested the *Inmun Gun* during the following weeks, the division had been effectively eliminated as a fighting force. When the ROK Army was reorganized in July 1950, there were so few survivors from the 7th Division that it was not reactivated.

Given the conditions of June 1950, it is unlikely that the fledgling ROK Army could have turned the tide of the invasion, but certain steps could have been taken that would have slowed the advance of the *Inmun Gun*. If closer attention had been paid to Lieutenant Mohr's report on 23 June, passes for that fateful weekend might have been cancelled. Because they were not, ROK forces were thrown piecemeal into the battle, and reinforcements were not available to units that were critically engaged and surrounded. Similarly, the defenders erred in not having their artillery and antiarmor units deployed to support the forward units; these units too often arrived after the battle had already been decided.

In spite of these mistakes, the defense the 7th ROK Division put up in the Uijongbu Corridor displayed the tenacity and professionalism of the ROK Army and KMAG in responding to the North Korean invasion. Standing and fighting while low on ammunition, lacking adequate support, and facing a bigger and better-equipped opponent, the 7th Division bought time—with their lives—for the Republic of Korea.

Lieutenant Thomas A. Hall served with the 2d Infantry Division in Korea as an assistant S-3, a mortar platoon leader, and a rifle platoon leader. He is now assigned to the 1st Battalion, 325th Infantry, 101st Airborne Division (Air Assault), in which he has been a company executive officer and an antitank platoon leader.



NTC-WINNING IN THE ENGAGEMENT AREA



LIEUTENANT COLONEL ROBERT J. GREENWALT JR.

All too often at the NTC, a task force's countermobility plan is not integrated into the scheme of maneuver, the intent of the obstacles is not briefed, and the survivability plan is weak. Company or team commanders and engineers merely do a map reconnaissance instead of siting the obstacles on the ground. The unit's survivability plan is not executed, few of the tanks and improved TOW vehicles are dug in, and friendly vehicles are killed by friendly mines. Although the obstacles may delay the opposing force (OPFOR) they are easy to breach because they have not been covered by fire. And they could not be covered by fire because they had not been properly sited.

Destroying an attacking OPFOR regiment is tough. The challenge begins with the attacker's numerical advantage, which is at least three to one. Then the desert conditions and the OPFOR's home team knowledge of the ground often allow it to uncover the defense.

The OPFOR soldiers can see for great distances, and they know where to go to establish outposts. Wide avenues of approach into the task force sector make mutual support difficult. And the width of the sector itself is often more than a task force can cover adequately. With the opposing force leaders' knowledge of the defense and the wide avenues, their favorite tactic is to mass the entire regiment against one defending company, thus gaining far more than a three-to-one advantage. As in combat, the OPFOR's massed fires are deadly and fast. If the defending force does not have some physical obstacles to slow the OPFOR, it will have little time to shoot accurately into the horde before being overrun or bypassed. It will have even less time to reposition its forces.

Although defensive principles are simple, their application can be difficult. Understanding these principles is not enough—they must be practiced, and practiced, and practiced.

Winning the fight in the engagement area requires integrating the close combat trio—maneuver, fire, and terrain—to get every advantage the defender can squeeze out

of his personnel and equipment. This means that a task force must do three things—use obstacles properly, prepare its battle position well, and effectively deceive the attacker when he tries to uncover the defense.

Obstacles are the most important weapons in the defender's arsenal for disrupting and disorganizing the attacker's scheme of maneuver. The single most important consideration in planning obstacles is the effect they are supposed to have on the attacker's formation—or the way they complement the defender's scheme of maneuver. Determining this is critical, because it dictates all the other details such as covering the obstacles with fire and tying them into the terrain.

A defender's obstacle concept should begin with the specific effect he wants the obstacles to have on the enemy. The task force commander must visualize the way the OPFOR will enter and cross the engagement area. Then he must plan the obstacles themselves so that they will interact with the OPFOR formation to produce the desired results.

Within and adjacent to the engagement area, obstacles are generally designed to turn, fix, or block the OPFOR formation.

- *Turning* obstacles deflect a formation in the desired direction.

- *Fixing* obstacles slow and disorganize an attacking formation within the engagement area to give the defender more time to place fires on him and break up his battle drills.

- *Blocking* obstacles make it difficult for an attacking formation to get out of the engagement area or to overrun a battle position.

The defending commander can use a simple sketch technique to show his task force engineer what he would like to do to the enemy formation—turn, fix, or block it. The engineer can then design an obstacle system to achieve that goal. He should not try to cover too wide an engagement area, because the OPFOR loves to find an isolated company position and run an entire regiment across it.

The engineer can certainly use obstacles to control where the attacker goes, for he will bypass rather than breach any obstacle that will slow him too much—particularly if it is covered with fire. If the OPFOR does elect to breach it, the delay will give the defending forces time to be repositioned to handle him.

The commander should mass both direct and indirect fires on an obstacle, or it will not remain an obstacle for long. (Two or three vehicles firing at the OPFOR do not constitute massed direct fires.) He should also plan artillery fires ahead of the obstacles so that a mounted attacker will be buttoned up when he strikes the obstacle; on likely covered positions where the OPFOR might halt if he decides to breach the obstacle; and at targets directly on the obstacle to prevent dismounted breaching attempts.

Outposts should be put out in front of the obstacle system, and aggressive patrols should be used to keep the OPFOR from reconnoitering or pre-breaching the obstacles.

The use of obstacles and the ground around the engagement area must also be coordinated so that the fires from the battle positions can be directed against the flanks and the rear of the attacking OPFOR formations. This not only makes the fires more effective but also makes it more difficult for the OPFOR to acquire targets.

Before obstacles are installed, they should be sited from the overwatching positions, and then the responsible maneuver commander and his engineer should jointly position them on the ground. This is critical because slight changes in an obstacle position can either enable the soldiers in a battle position to cover it thoroughly or prevent them from seeing it at all. A good technique is to drive a vehicle along the proposed obstacle trace while siting it to make sure enough firing positions can see the obstacle and cover it adequately.

After determining the obstacle trace, the engineers should stake it out on the ground so that the planned obstacles can be constructed exactly along the trace. After the engineers

install the obstacles, either they or soldiers from the defending maneuver unit should drive a vehicle along the trace again so that the soldiers manning the direct fire weapons in the battle position can record them on their range cards. (If all personnel know precisely where a minefield is, this may also help prevent friendly vehicles from wandering into it.)

The next step is to coordinate with the engineer in preparing survivability positions for the direct fire systems. These positions will add tremendously to their ability to fight and survive—an old manual claimed that a vehicle's probability of being hit dropped from 94 percent to 15 percent when it was dug in. Whether these figures are precise or not, a target's survivability does increase markedly as its exposure decreases.

To give every direct fire system a primary and an alternate position, a typical task force training at the NTC needs an average of 110 positions. But the average number actually dug is 22, or one-fifth that number.

Correcting this deficiency takes rapid planning on the part of the engineer leader and good engineer blade teams. It also takes rigorous discipline to limit each company to the number of positions or the amount of digging time the plan allocates. This is a leadership task that must command the attention of the maneuver commander and the engineer alike.

The actual construction of a company's fighting position should begin only after its fire plan has been approved. If the position is to be built before the company arrives, the company should send a representative to select each individual fighting position. He should be careful to select these positions from ground level to make sure they have adequate fields of fire. A good technique is to mark the position with a U-shaped picket oriented in the proper direction. The key is then to use the selected position and never to redig one, regardless of better ideas that may come along later.

Commanders must make sure the engineers provide supervision along with their digging equipment. If the engineer



equipment cannot prepare positions to standard, if it sits idle when there is work to be done, or if it runs out of fuel, then the supervision is inadequate. A strong engineer leader, either an officer or an NCO, should be in overall charge.

The initial vehicle locations in the battle position should be fighting positions that take advantage of the terrain to provide both defilade protection and covered withdrawal routes. If the initial location is eventually approved as the final position, the hole can be dug faster since it is usually cut into a reverse slope and less dirt has to be moved.

TWO POSITIONS

Each combat vehicle should have two prepared positions (primary and alternate) on each battle position. At roughly one hour per position (the average rate for the OPFOR at the NTC), digging in an entire task force should take eight D7 class dozers one day (or four D7 dozers two days). The effective use of reverse slopes can significantly reduce both the time and the amount of digging.

(We might do well to adopt the Soviets' aggressive doctrine about digging in combat vehicles: Although much better equipped for digging than the U.S. Army, they do not wait for that equipment; the crews begin digging in their own vehicles with handtools while waiting for the engineers to get to them.)

The defender's plan for the obstacle system and for the survivability of the battle position should include all of the obvious counter-reconnaissance steps—eliminating or neutralizing the OPFOR's observation posts before beginning construction and his scouts and patrols when they arrive. In spite of these measures, though, it is still very difficult to keep the OPFOR from uncovering a task force's defense in the desert. A better way is to use deception to prevent him from seeing the true picture.

Various deceptive techniques can be used. For example, engineer work produces a large signature. Digging, in particular, can cause a column of dust to rise hundreds of feet into the air. A commander can use this to advantage by putting some engineers to work in likely places as a deception effort to support his plan. This can be done while

the actual positions and exact obstacle sites are being completed.

Deceptive obstacle systems can be used, leading, for example, with a real obstacle, followed by obvious but fake obstacles with aggressive patrols to guard them. Phony battle positions can be used, too—a few scratches on a hilltop with a couple of real tanks to fire at the OPFOR reconnaissance elements can paint a picture for him.

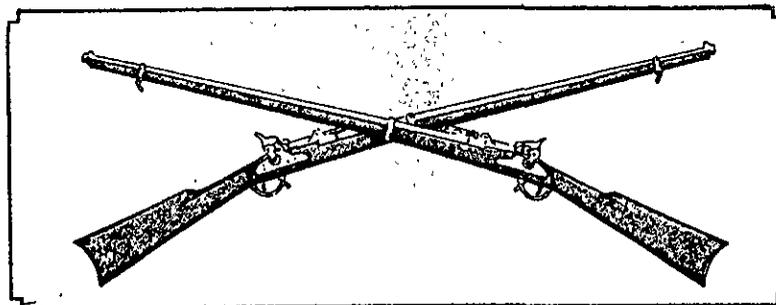
In addition, when the OPFOR's reconnaissance or lead elements appear, they should not be engaged from the actual battle positions but from the outposts, or even better, from the deceptive battle positions.

To win in the engagement area, the defender must dominate the attacker's maneuver and defeat the attacker's fires. He does this by planning and executing an obstacle system that, when integrated with his own maneuver plans and fires, prevents the attacker from successfully executing his own scheme of maneuver. This effort is improved when fighting vehicles effectively use the ground for protection from OPFOR fires.

While the NTC does not provide actual combat experience, it is an ideal training ground on which the high-intensity, high-speed battlefield of the future can be approximated. And on that training ground, it has been established beyond the shadow of a doubt that if natural and manmade obstacles are not covered by direct fire from armored vehicles, and if weapon systems are not then efficiently positioned and properly dug in, a battalion task force will be destroyed.

It is up to the task force commander and the engineer, planning and working together, to prevent this destruction. With a combined effort of well-integrated obstacles and effective direct fires, a task force can succeed against the opposing force at the NTC—and in combat.

Lieutenant Colonel Robert J. Greenwalt, Jr., a combat engineer, is Chief of the Tactics, Training, and Doctrine Division, Department of Combined Arms, United States Army Engineer School. He previously served as S-3 and assistant division engineer, 7th Engineer Battalion, 5th Infantry Division, and as commander and division engineer in the 16th Engineer Battalion, 1st Armored Division.



PAST TIMES



EDITOR'S NOTE: The following is another in our recurring series of articles reprinted from previous issues of INFANTRY and its predecessors, the INFANTRY SCHOOL QUARTERLY and the MAILING LIST.

Slightly edited, the following articles appeared in the MAILING LIST, Volume XXVIII, 1944. The first, titled Combat Notes (pages 13-22), was written by a general officer who had commanded U. S. troops in action during World War II in both Europe and the Pacific. He had most recently served as an infantry division commander in

Europe.

The second article, Jungle Fighting Notes (pages 119-139), is presented without the drawings that accompanied the original article. Those drawings were used only to highlight specific points that were made in the then most recent edition of Field Manual 72-20, Jungle Warfare. We felt the specific narrative points were far more important than the drawings.

To us, these two articles have considerable relevance for today's infantryman.

COMBAT NOTES

Many soldiers act as though all rules are suspended when they enter a combat zone. Individual sanitation is neglected unless the leaders are alert. Small items of equipment are abandoned. Water discipline is forgotten. Men expose themselves to observation until they learn better by harsh experience. They neglect their weapons. To prevent this slackness, troops must be so controlled and spruced up during training that they become proud of their disciplined qualities.

Bivouac discipline of green troops is often especially bad. An example was furnished by one unit on its first night in Normandy, where German reconnaissance planes often made sorties at night over Allied positions. When the first enemy airplane was heard over this outfit's bivouac, every man who could lay his hands on a weapon opened fire. The enemy could not have asked for better information than that provided by this futile fire.

Bunching

The oldest complaint about our troops in battle is that they do not disperse sufficiently. Unfortunately, it is still true. Comparatively few casualties are caused by gunfire. The great majority of them are the result of mortar fire, which our enemies lay down with speed and accuracy. Instances in which a single mortar shell has caused a dozen casualties, including both officers and men, are not rare. It is evident

that our training must not only continue to emphasize the need for dispersion, but must increase the emphasis.

Tanks

The invulnerability of tanks is largely a myth. This should be emphasized in training. When attacked by tanks, infantrymen must remain in place and kill the accompanying hostile infantry. In every observed instance on which these notes are based, German tanks did not continue the attack after their accompanying infantry had been killed or stopped by fire.

A feeling of great helplessness suffuses the individual infantryman when attacked by tanks. Often the terrain makes it impossible for organic antitank weapons to keep up with the foot troops. Therefore, the infantryman must be shown that the antitank rocket really is effective against tanks; that while riflemen are destroying the accompanying hostile infantry, rocket teams can stalk the tanks and destroy them. A realization of the effectiveness of this combination does much to eliminate fear of tanks.

Many of our troops fail to realize that they must cover the friendly tanks operating with them by actually delivering small arms fire all around them. But, unless friendly riflemen place a protective screen of small arms fire around a tank, it can be knocked out by enemy with rocket launchers, sticky grenades, mine strings, or other light weapons. Our training

for small infantry units working with small groups of tanks should include exercises in which ball ammunition is fired.

Small Unit Tactics

Simple fire-and-movement tactics win the fight. This principle cannot be stressed too much. It is the one thing that will break a stalemate in battle. Whenever a unit is stopped by fire, some part of it must promptly return the fire, while some part initiates movement. There have been occasions when one or two men crawling toward the enemy's front or flank have actually caused him to break.

New troops can be led forward if they are required to fire liberally. The individual should be taught that, in many combat situations, no hostile targets are visible. Even so, he must fire at those points from which he thinks the enemy fire is coming. By this means, although the enemy may not be shot out, he will probably be neutralized; in any case, the effectiveness of his fire will be reduced.

The more vigorous the base of fire is, the greater the mobility of the maneuvering element. If all its rifle squads are thoroughly indoctrinated with this principle, a company or a battalion will seldom be "pinned to the ground."

Being "pinned to the ground" by the Germans for any length of time is certain to result in casualties. When the Germans stop an infantry unit for more than 10 or 15 minutes, they invariably punish it severely with mortar fire.

In training, complicated squad or platoon problems must be avoided. They are not worth the time they require to run. Simple, direct fire-and-movement problems, designed so that the leaders must act quickly and maintain control of their units, must be practiced again and again. Plenty of time should be given to this subject, even at the expense of curtailing more advanced training. The unit that knows how to fire and how to move under fire is a winning unit.

Patrolling

Patrolling is weak in our units until the personnel have gained combat experience. The subject is of great importance, and not enough time has been devoted to it.

One phase which must be covered in training is that of organizing and planning patrolling along a battalion or regimental front. To tell a unit to "maintain contact with the enemy by vigorous patrolling" is inadequate and often dangerous. At best, it will produce little of value. Objectives must be defined, missions assigned, routes and alternate routes in both directions planned. Recognition must be assured. The entire plan must be designed to secure a chain of positive or negative information that will produce the desired intelligence.

A new unit must be carefully "broken in" to patrolling. Simple, easy missions should be assigned initially. But missions must be accomplished. If necessary, a patrol that fails should be sent out again. As the personnel acquire skill

and confidence, the difficulty of the missions can be increased. But it is hard to get good patrolling from a unit whose first patrols are badly shot up.

Communication

Forward units often grow careless about radio security. Late one afternoon in France, a certain battalion radioed in the clear: "What is the effective strength of George Company?" Answer: "Approximately 80 men." Battalion "The old man does not wish you to advance beyond the church about 400 yards to your front." It is hardly necessary to point out the danger involved in such lack of radio discipline and the need for simple abbreviated codes for transmitting such messages.

Junior Leaders

The training and development of lieutenants and noncommissioned officers must be continuous. Casualties among them are high; therefore, understudies must be trained. Commanders sometimes complain that their basic privates are not of noncommissioned caliber. Even if this is true, if they are the only soldiers available they must be trained. Three men should be trained for every noncommissioned officer position.

During training, noncommissioned officers should be given every possible opportunity to exercise authority—on the drill field, in bivouac, in barracks, on work details. They should be "bosses" in fact as well as theory. Information should be given through them, so that their men become accustomed to looking to them for guidance at all times. The squad leader, for example, should be the private's leader, teacher, and advisor in everything affecting his military existence. If a private needs an oil-and-thong case, he should go to his squad leader rather than to the supply sergeant.

Small units should go on independent training missions under their own leaders. The missions should be of such difficulty that they cannot be accomplished unless the leaders have real control of their units. In firing problems and other field exercises, control should remain with the junior leaders, and must not be usurped by safety officers or umpires.

Companies

The biggest problem of the company commander in battle is to maintain control and direction. Training exercises to develop this technique must be practiced endlessly. The company must be able to advance, close, and change direction over all types of terrain, by daylight or in darkness. Each company commander must devise his own system of control to meet the conditions of the moment.

The technique of control must embrace the ability to

organize for an attack from a night security position. This is not easy. Many companies have great difficulty in getting off on time, in proper formation, and in the right direction for a dawn attack from a position in which immediate contact with an enemy has existed throughout the night. Even the problems of feeding and watering and resupplying ammunition under such conditions will be solved only when the company commander has effective and positive control.

Too much dependence on radio must be avoided. Extra company runners must be trained and used freely.

Battalions

Everything noted above in regard to control of the company is applicable also to the battalion. Battalion commanders must be required to develop a positive control technique. They must be able to maintain direction through some system of effective but simple checks. These things must be done under all conditions of terrain and visibility. They are often neglected in training.

In the hedgerow country of Normandy, the countryside is a checkerboard of small fields of uneven shape enclosed by hedgerows. One regimental commander ordered his two attacking battalions to advance on an azimuth of 270 degrees. After the attack jumped off, both battalions lost direction. Some time later, one of them was attacking on an azimuth of 180 degrees, the other on an azimuth of zero. This unhappy situation was discovered when each battalion called for an artillery concentration on the position occupied by the other. When these requests reached the fire direction center, the battalion commanders were promptly notified. As a direct result of this occurrence, the advance on that front was delayed by more than 24 hours.

A battalion commander cannot fight his battalion from a command post. He must keep close to his assaulting companies if he is to have coordination. While it is seldom necessary for the battalion commander to be actually in the assault, he must be close enough to reach his assault companies whenever necessary. When a crisis arises or when the battalion halts for the night, the battalion commander must not leave everything in the hands of the leading company commanders. He must go forward to supervise and coordinate their activities.

A battalion commander in France reported that he was pinned to the ground, his battalion stopped. He was ordered to engage his reserve company. He couldn't find the company. He called it by radio; he sent out messengers; finally, he sent out staff officers; to no avail. The reason he could not find his reserve company was that he was too far to the rear. This incident might well be regarded with incredulity. Nevertheless, it did happen. Of course, when his attacking companies bogged down, the battalion commander should have gone forward to them with all possible speed.

In rapidly moving situations, battalions often halt for the night in immediate contact with the enemy. To resume the attack at dawn is a complicated and difficult procedure.

Many things must be done during the night, and at the same time the troops must get the maximum rest possible under the circumstances. This type of situation must be realistically simulated in training and practiced time and again.

Battalions must, above all, be able to attack on time. Enemy prisoners of war, both officers and noncommissioned officers, have commented on the frequent failure of our infantry to follow promptly our splendid artillery fires. A battalion which is 15 or 20 minutes late—and some have been—in crossing the line of departure has already lost its best chance of taking its objective on schedule.

Another fault of some battalion commanders is overcaution. They are afraid of isolating themselves and, if they seem to be moving faster than adjacent units, will go a hundred yards or so and halt. Then, in 15 minutes at the most, the enemy begins to dump mortar shells in their laps.

Many officers do not appreciate the sustaining power of an infantry battalion. If a formation in reasonable depth is adopted, the battalion is very powerful and cannot easily be destroyed. It can protect its flanks and its rear and, even if cut off, can hold out long enough to affect the general situation very favorably. These capabilities justify aggressiveness on the part of battalion commanders. They should vigorously exploit soft spots and never give way to the temptation to stop and wait for an adjacent unit to catch up.

Battalion commanders must learn more about artillery during training. Most of our artillery is accurate and dependable, and is present in ample quantity. The infantry, in general, is slow to take advantage of it. Men must be required to close in on the fires of the artillery—to "lean against" them. When these fires lift, leaders must take their men on the run into the neutralized area. If they do not, the artillery preparation will have been comparatively ineffective.

One very effective type of artillery fire used in France is called a "serenade." It consists of the firing of one or two rounds by every gun in the division artillery, all on a single target area and so timed that the rounds of all guns hit simultaneously. The effect cannot be adequately described.

Battalion commanders must keep themselves informed of the condition of their companies. In a long fight, a skillful battalion commander can often restore a badly mauled company by passing his support into the assault and getting the depleted company out to be calmed, reorganized, and at least to some extent rested.

A battalion in France was ordered to seize a hill mass which afforded the enemy observation not only over the nearby country but clear down to the landing beaches a good many miles away. As the battalion pushed ahead, its commander conferred with the artillery liaison officer. He pointed out his objective, after its capture, to beat off the inevitable counterattacks. The battalion took the objective and stopped the counterattacks that followed.

Later, this battalion, along with others, was required to push down the heavily wooded slope of this hill mass. After fighting its way down the slope and through a series of strongly organized reverse slope positions, the battalion commander

discovered a bridge which he considered a key point. He determined to capture it. The reverse slope positions were captured in the late afternoon. The bridge was taken about dark. The battalion had done an excellent job, and no criticism of the commander could have been offered if he had called an end to the day's work at this point.

However, there was a small village not far from the hill in the direction of the enemy. The battalion commander feared that if the Germans were allowed time during the night to prepare this village for defense he would be faced at daylight with the difficult and expensive task of dislodging the enemy. So he ordered a night attack with a limited objective and took the town.

The determination and forehandedness of this battalion commander were not wasted. Following the capture of the hill objective, the battalion beat off 15 German counterattacks, thanks very largely to the artillery concentrations which had been arranged before the battalion commenced its attack. The entire action was a remarkable demonstration of leadership, involving anticipation, aggressiveness, and tenacity. That kind of battalion commander wins wars.

Regiments

The overcaution which, as previously noted, is a failing of some battalion commanders, is a shortcoming of regimental

commanders also. They worry about their flanks and try to maintain a linear formation in battle. The desirability of aligning units abreast is a fallacy that lingers on among officers who ought to know better.

During a continuous battle, the regimental staff must be so organized as to permit effective night preparation for the next day's attack. Local security, antitank weapons, food, water, ammunition, evacuation, and timely orders are among the things that must be remembered in order to insure combat effectiveness the following day. A regimental staff that is too worn out in the evening to get anything done at night is not functioning properly.

Regiments have a tendency to overlook the necessity for giving the troops hot food whenever possible. Division commanders should insist that regimental commanders see that this is done whenever the situation permits.

Regimental commanders can help keep their units in good combat condition by judicious rotation of battalions in reserve. Many an able battalion commander who might otherwise have got into serious difficulties has been rescued by a regimental commander wise enough to take the battalion out of action long enough to permit a few hours of undisturbed sleep.

It is doubtful whether any man 48 years of age or older has the physical or nervous strength required of a successful regimental commander in combat. There may be exceptions to the rule, but to gamble on an exception is poor policy.

JUNGLE FIGHTING NOTES

American troops learned how to fight the enemy on the tropical islands of the Pacific by a process of trial and error. Since the first of the jungle campaigns, training literature embodying the things they learned has been made available in increasing volume to troops in training, while the training itself has been modified appropriately.

It is, however, difficult to reproduce jungle conditions in most training areas. As a result, most troops in their first experience of jungle fighting find the conditions unnatural. To some extent, they must accustom themselves to jungle conditions by the same process of trial and error earlier units have undergone.

The latest Field Manual 72-20 offers a great deal of advice. The following are some examples:

- Instinctive fear of the jungle is often greater than fear of the enemy. The resultant mental strain, if fear of the jungle is not overcome, will eventually lower combat efficiency. Fear of jungle sounds, for example, can be overcome when troops learn to distinguish those that are natural from those that are man-made.

- Individual equipment should be kept at a minimum, because physical exhaustion comes rapidly in the jungle's hot, humid atmosphere.

- Most jungle terrain is not level. Much of it is broken by sharp elevations and depressions. Heavy equipment is often passed from hand to hand up a steep slope—a method often less exhausting to the men than carrying individual loads.

- All movement in the jungle should be made as silently as possible. The enemy is not frightened by the noise we make; he is merely alerted. Loud conversation, shouted orders, or rattling equipment are invitations to ambush. If there are enemy in the vicinity, talkative soldiers may not live to regret their carelessness.

- Existing good concealment is the rule, rather than the exception, in the jungle, but this fact should not lead to carelessness when an open area is encountered. The enemy's observation is often good, and it is as dangerous for men or vehicles to expose themselves on a skyline in the jungle as it is anywhere else.

- The enemy is adept at concealing himself and is very

patient. He will lie hidden almost indefinitely for a chance of firing at us from the rear. Therefore, troops should not be moved into a new area until it has been combed for lurking enemy.

- Few jungle maps are detailed or reliable. Aerial photographs may be more useful and should be consulted by members of a patrol before commencing their mission. The use of both vertical and oblique photos and the assistance of a trained photo-interpreter are advisable. Each member of the patrol, not merely the patrol leader, should have all possible advance information of the mission and the terrain to be traversed.

- A patrol is not doing its job if it merely passes through an area. It must make a thorough search, as the enemy does not reveal himself until it seems profitable to him to do so. Certain members of a patrol will frequently be assigned particular directions or sectors of observation for which they are responsible.

- Jungle bivouacs, especially of large units, are usually made during daylight in order to eliminate all possible movement above ground after dark. However, a patrol in enemy territory may be under observation when it bivouacs and thereby risks an attack in force at night. A ruse that has been successfully used by patrols in such circumstances is to make a daylight bivouac and, immediately after dark, move to another previously selected location.

- Many soldiers have a tendency to freeze into immobility when fired on in the jungle. But since the enemy's fire quite certainly means that he has located you, it is almost always better either to move to shelter or to advance against him.

- Visibility in the jungle is so limited that it is especially important to preserve contact between units. If this principle is neglected, troops may suddenly find that their flank contact is with the enemy.

- Men caught in a flare at night should move instantly either to cover or away from the area. The chances are that the enemy fired the flare because he detected their presence and needs only to locate them exactly before opening fire.

- The enemy employs many ruses at night to draw fire from our automatic weapons. He may want targets for his mortars, or he may want to locate our flanks. Strict orders as

to which weapons may fire, and under what conditions, are always issued for a night defensive position. Failure to follow these orders may endanger the entire unit.

- Machinegun fire should be kept low. Unless it is close to the ground, the enemy may be able to creep in under it. This is especially important when it is necessary to fire at night, as the enemy will be unobserved until very close to the position.

- Protective wire should be strung tight. Tight wire gives forth a loud, distinctive sound when cut. Loosely strung wire can be cut quietly, and may enable the enemy to pass through it at night undetected.

- Rear area installations located for convenience near important roads or trails are easily spotted by the enemy. Time and effort spent in camouflaging such an installation may be relatively ineffective if the location was poor to begin with.

- The desire to police up rear areas may cause neglect of proper camouflage and concealment. Cleaning out undergrowth, lining up tents and buildings, and widening and improving paths and trails make the installation a conspicuous target for enemy air and artillery.

- The enemy infiltrates our lines skillfully and boldly with patrols as small as two men. No rear area is safe from surprise attack. All installations therefore should be protected by perimeter defenses partially manned at all times. In addition, a 24-hour guard should be maintained on airstrips, motor parks, supply dumps, and so forth.

- Our troops have good air cover and support. Big patrol bombers, usually operating in pairs, are excellent spotters because of their ability to remain over an area for extended periods. They cause enemy artillery to keep silent for fear of revealing its positions and they also locate targets for our own weapons.

- Enemy prisoners are extremely valuable to our intelligence personnel and should be captured and brought in, after being stripped and searched, whenever possible. It is equally important to bring in all documents found on them. Soldiers should acquire the ability to recognize some written enemy characters of military significance and to interpret enemy identification tags.



TRAINING NOTES



New Infantry SQT Program

EDSON B. HARRINGTON JR.

Some changes are being made in infantry Skill Qualification Tests (SQTs) that will take advantage of the battle focus concept.

The intent of battle focus, which originated in Field Manual 25-100, is to ~~test each soldier on his~~ wartime-related job skills—the skills that are most closely related to his unit's mission essential tasks and equipment. Since the goal of battle focus is to develop SQTs that test tasks appropriate to each unit's METL, the Infantry School welcomes comments from the field as to which tasks should be added or deleted from the tests.

The big change in next year's SQT that will come from battle focus is more separate tests, because, with one exception, each infantry MOS (Military Occupational Specialty) will have two or three tracks for each skill level.

Under the current program, the tasks for testing are randomly selected from the Soldier's Manuals, and there is a single test for each skill level for MOSs 11B, 11C, and 11M. The 11H MOS has a separate test for Skill Levels 1 and 2, but not for Skill Levels 3 and 4.

Under the new program for Fiscal Year 1990, MOSs 11B, 11C, and 11H will be divided into tracks as follows:

- MOS 11B will have two tracks: Track 1 will include infantry, airborne,

air assault, or Ranger units. Track 2 will include units equipped with M113 armored personnel carriers.

- The 11C MOS tests will have three tracks: Track 1 will include 60mm mortar crewmen; Track 2, 81mm (M29A1/M252) mortar crewman; and Track 3, 4.2-inch mortar crewman.

- The 11H MOS test for Skill Levels 1 and 2 will still be broken down into Track 1, Heavy Antiarmor Weapons

Infantryman, and Track 2, Improved TOW Vehicle (ITV) Infantryman. For the FY 1990 test, however, Skill Levels 3 and 4 will also be broken down into the same two tracks.

The 11M MOS SQT, since it is based on a single weapon system, is already battle focused and will have only one test for each skill level.

Each test booklet for 1990 will contain all of the tracks for a given skill



level. The 11C Skill Level 1 test booklet, for example, will contain Tracks 1, 2, and 3. The test will begin with a common task section; then each 11C soldier will be directed to turn to a certain page to find the remaining questions for his track.

Soldiers should carefully study their SQT notices as soon as they arrive, as they will contain the exact list of tasks that will be tested. This is a major change from past years when the SQT notice contained additional tasks that were not tested.

Under this new system, it will be

important for each soldier to know in advance which track he will be tested on so he can study for it. Each unit commander, in coordination with the soldier and his first line supervisor, will select the test track the soldier is to follow.

In Fiscal Year 1990, the U.S. Army Training Support Center will further support SQT battle focus by allowing Reserve Component commanders to select the specific tasks that support their units' mission.

The infantry SQT test dates for FY 1990 are 1 March 1990 to 31 May 1990

for Active Army units and 1 March 1990 to 28 February 1991 for Reserve Components units.

Questions or concerns about the new SQT program may be directed to the Commandant, U.S. Army Infantry School, ATTN: ATSH-I-V-TM (Captain Chuber); AUTOVON 835-1670, commercial (404) 545-1670.

Dr. Edson B. Harrington, Jr., is assigned to the Individual Training Branch, Directorate of Training and Doctrine, U.S. Army Infantry School.

IOBC

Training Infantry Platoon Leaders

MASTER SERGEANT CHARLES G. BEER

When I entered basic training in 1968 I had little or no knowledge of the Army and its military traditions. (I guess I had not watched enough war stories on television when I was growing up.) I wondered about one soldier walking around with a bar on his shirt. He was, I was later told, an officer and, in this case, the company commander.

Then I started thinking: "What type of training did this lieutenant have? Was it the same training I was going through?" Eventually, through my military career, these questions were answered for me, but today's young soldiers may also wonder from time to time about the qualifications of their officers.

First of all, on the basis of my experiences, I can say that our young officers are well-qualified and well-trained to be leaders. And, as a matter of fact, they do go through some of the

same training enlisted infantry soldiers go through.

For instance, newly commissioned officers attend a demanding course that trains them to be infantry platoon leaders—the Infantry Officer Basic Course (IOBC), which is run by the Infantry School at Fort Benning, Georgia.

HIGH LEVEL OF TRAINING

The Infantry Officer Basic Course assures the Army and the individual infantry soldier that all infantry lieutenants have had the same high level of training. It trains newly commissioned officers to be mentally tough, physically fit, confident, and technically and tactically skilled in infantry tasks.

All infantry lieutenants—Active Army, Army National Guard, and U.S. Army Reserve—take this course. These

officers have been commissioned through a variety of institutions and programs including the United States Military Academy, the Reserve Officer Training Corps (ROTC), Federal or state officer candidate schools (OCSs), and direct commissioning.

My career has given me an insider's view of the training of platoon leaders. I had seven years of experience training cadets before I went to an IOBC training company. While there, I served as the first sergeant for Company A, 2d Battalion, 11th Infantry—one of five IOBC companies.

The company provides the officer-students with the experienced officer and noncommissioned officer leadership they need to make the most of their training. Commanded by a major, each company usually has four or five platoons with 40 to 45 officer-students each. At least two of the NCOs in each

company must be Ranger qualified.

A platoon forms the key learning environment for the officer-students, and has three cadre members:

- A captain, called a senior platoon trainer, runs the platoon. About 90 percent of these captains have just graduated from the Infantry Officer Advanced Course.

- A sergeant first class, the senior trainer, who serves as the platoon sergeant role model, usually has served as a platoon sergeant in a line unit, and usually is also qualified as a drill sergeant.

- A staff sergeant, the assistant platoon trainer, serves as the squad leader role model.

These three cadre members conduct about three-fourths of the instruction, including all Skill Level 1 through 4 infantry tasks.

IOBC lasts approximately 16 weeks, and the bulk of the training is in a field environment. Physical training is held daily at 0530, and classes begin about 0800. The day ends about 1700 or 1730 when the officer-students are not in the field.

EXAMINATIONS

They are evaluated in both tactical and garrison settings through written examinations, hands-on tests, physical fitness tests, compliance with the weight and height standards, and, probably most important, their performance in leadership positions, which exposes them to their future roles as company commanders, executive officers, and platoon leaders. They learn about the duties, responsibilities, and authority of NCOs when they serve as a fire team leader, squad leader, platoon sergeant, and first sergeant.

A key element in infantry leadership is physical fitness. IOBC ensures this fitness by a rigorous physical fitness training program geared to seeing that the officer-students pass the Army Physical Fitness Test (APFT) and meet Airborne and Ranger School standards. The officer-students go on numerous road marches with full field packs; they take three APFTs—diagnostic, mid-term, and final; and they are exposed to

a wide variety of physical training exercises to help them to become better trainers when they get to their units.

Officer-students must qualify with the M16 rifle, the M203 grenade launcher, the M60 machinegun, and hand grenades. They must be certified on nuclear, biological, and chemical operations; communications; the pistol, the .50 caliber machinegun, the squad automatic weapon (SAW), the light antitank weapon, and the Dragon; vehicle maintenance; call for fire/observed fire; and day and night land navigation.

Written examinations cover indirect fire planning; nuclear, biological, and chemical operations; communications; combined arms tactics; vehicle maintenance; and the battalion training management system.

The officer-students must also perform successfully during a day and night tactical leadership course; a defensive FTX; a light infantry FTX; and a mechanized infantry FTX.



Of all this training, probably the most important is the counseling, formal and informal, that the officer-students receive throughout the course. Informal counseling takes place any time an officer-student will benefit from an evaluation of his specific performance. A platoon trainer conducts formal counseling sessions at three intervals during the course: before the seventh week, during the 12th week, and during the 16th week. The final session focuses on an officer-student's academic efficiency report and his potential as an infantry officer.

The Infantry School considers this counseling essential to officer-student development, because it serves to improve their performance and professionalism. Counseling, by making them aware of their strong and weak points, helps them improve themselves and become more effective combat leaders.

The training in IOBC is all military business. Although discipline is en-

forced, there is no harassment or hazing. And the lieutenants are encouraged to attend Airborne and Ranger Schools after they complete IOBC.

IOBC is one of the most challenging courses the Army has to offer. The young infantry soldier can be sure that

today's infantry lieutenant knows his job as a platoon leader. The infantry sergeant, and especially the platoon sergeant, can be sure that they will receive from Fort Benning tactically and technically proficient, physically fit, and hard-charging platoon leaders.

Master Sergeant Charles G. Beer recently completed the U.S. Army Sergeant Major Course and is now assigned to the Berlin Brigade. He has completed the Drill Sergeant School, the Advanced NCO Course, Airborne School, and Air Assault School.

Offensive Reconnaissance Planning

LIEUTENANT COLONEL HOWARD W. CRAWFORD, JR.

A major problem for many units training at the Joint Readiness Training Center (JRTC) is their weak reconnaissance planning for offensive operations. Fortunately, no special program is needed to improve reconnaissance planning. In fact, a unit only needs to do two things: Use the military decision-making and intelligence preparation of the battlefield (IPB) processes more efficiently, and get its entire staff and all the commanders involved in building a plan. The key, then, is to have a plan before the reconnaissance effort begins. Too often, though, a unit has no such plan.

Successful units at the JRTC, whether they have the time for either deliberate or compressed planning, carefully follow good troop leading procedures when they begin developing plans. Shortcuts rarely work. The key element in any plan is getting the commander's initial planning guidance.

A commander should provide his initial planning guidance for the reconnaissance plan just as he does for the ground tactical plan. Far too often, commanders do not do this, perhaps because they do not view reconnaissance planning as a formal step in the overall planning process. In his initial guid-

ance, therefore, a commander should state his priority intelligence requirements (PIRs). (When he doesn't, his staff must develop recommended PIRs. A good S-2, on the basis of his own preliminary analysis, will normally recommend PIRs for the commander to consider.)

A PIR must address the immediate battle area (or the area of operation) and the area of interest. This analysis should also include the opposing force's air avenues of approach.

TIME LINE

At this point, using a backward planning sequence, the battalion executive officer and S-3 should establish time milestones. A good technique is to produce a time line that reaches all of the elements right after the warning order, but the times must be enforced. The one-third, two-thirds rule is still an important guide.

In preparing for an offensive operation, and before proceeding with the staff estimate process, the staff needs to consider the *offensive* IPB in more detail. When the Army first developed the IPB concept, the emphasis was on

defensive operations in support of heavy forces. Later, the focus shifted to include the deployment of strategic contingency forces, and the offensive IPB gained importance. Unfortunately, many of our best doctrinal discussions on the IPB still focus on defensive operations.

In an offensive IPB, the focus is first on those uncertainties concerning possible enemy actions—his withdrawal routes, defenses, disposition of obstacles, counterattack routes, reinforcing options—and then on our own routes forward. The key in an offensive IPB is not to focus on more than can reasonably be achieved at battalion level.

As the entire staff works with the S-2 on input to the IPB, they generate courses of action to support both the ground tactical plan and the reconnaissance plan. This is the critical step; they cannot afford to send out reconnaissance elements too quickly without a proper staff analysis.

Experience at the JRTC has shown that if scouts are sent out without a plan and coordinated support, they rarely contribute to the battle. It is essential that potential named areas of interest (NAIs), targeted areas of interest (TAIs), and decision points be developed to

support the intelligence collection effort. These will later serve the battalion as the primary focal points for its reconnaissance plan and will either confirm or deny the options in the ground tactical plan.

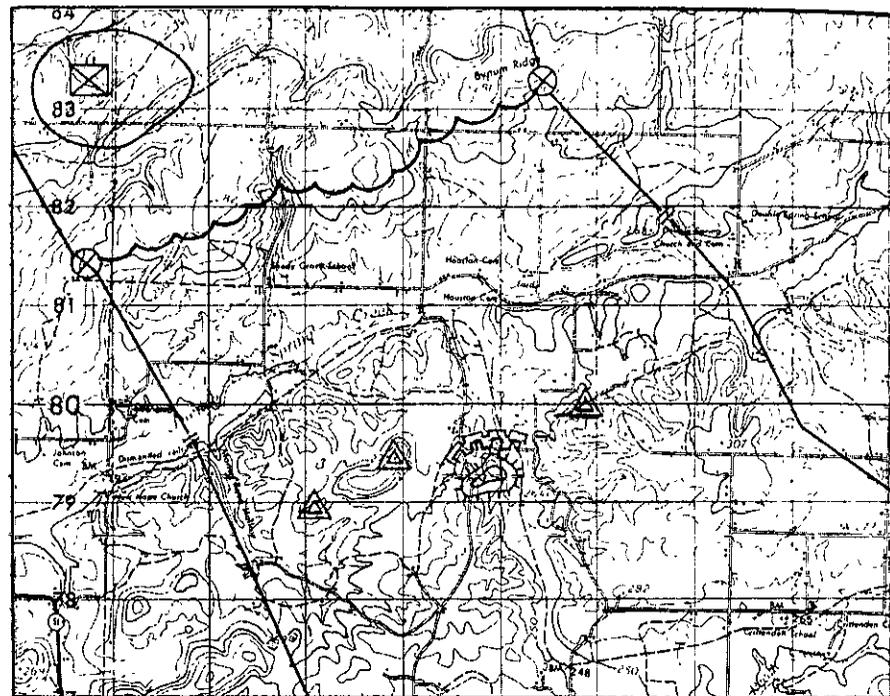
Time is also a factor when working on the reconnaissance plan. Most battalions will have somewhere between thirty minutes and four hours in which to complete their reconnaissance plans. Reconnaissance should not be limited to the scouts, because there are often more tasks than they alone can handle. A **METT-T analysis** will determine how many assets must be committed to the reconnaissance task. This does not mean that more is better, though. The commander should stay flexible and send only what is needed.

TEMPLATES

In the IPB process, the S-2 will normally work from a doctrinal template to formulate a situational template. This is much harder to produce in low intensity combat or when the threat is a Soviet surrogate force using a wide variety of equipment and tactics. When in doubt, the S-2 should apply common sense and develop a template using known threat equipment and adapting typical threat defensive doctrine. He must not underestimate the enemy. For example, patrols, observation posts, and ambushes are tactical concepts that all armies use.

He should then consider the air threat with likely directions of attack and, if friendly air is planned, the ADA threat as well. (The SA7B Grail, for example, is a formidable manportable weapon that can quickly disrupt an air assault.) The reconnaissance plan should therefore address probable enemy ADA locations for inclusion in the unit's future effort to suppress enemy air defenses. This is particularly helpful if an air assault is going to be used to support the ground tactical plan or if the S-2 intends to use pick-up zones near the objective to extract casualties.

Once the S-2 has completed his battlefield analysis, he is ready to develop a collection plan. Working with the S-3



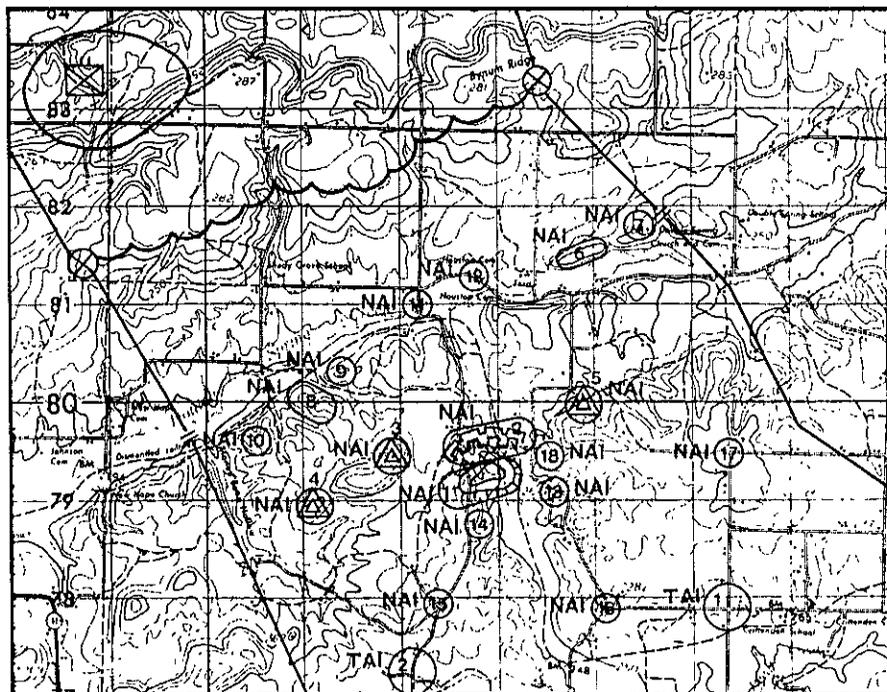
Map 1

and other key staff members, he can recommend assets and support for the reconnaissance effort and complete a tentative plan. Once the commander approves the plan, the S-3 issues the necessary orders.

The time and place for issuing orders can vary. Some or all of the scouting elements may already be on another mission, and whether the S-2 recalls these forces or just their leaders, or tries

to issue fragmentary orders over a radio, has to be considered.

Recalling the force has several advantages. First, the reconnaissance element receives a detailed plan, and the soldiers are more likely to ask questions to clarify the commander's intent. Second, the leaders can review photographs and other available intelligence products. Third, all units involved in the reconnaissance effort can coordinate and re-



Map 2

hearse their plans. And the reconnaissance force can rest, resupply itself, and get rid of overlays, target lists, and CEOs (communications-electronics operation instructions).

Since some tactical situations may not allow the scouts or other elements to withdraw for new orders, the next best option is to brief the scout leaders face to face. Too often, when fragmentary orders (FRAGOs) over a radio are used to issue the reconnaissance plan, the scouts do not have enough planning time.

A brief example from the JRTC will help illustrate one way to translate the IPB effort and staff estimate into a reconnaissance plan. In Map 1, the Blue Force unit, in an assembly area, has the mission to conduct a forward passage of lines and a deliberate attack to seize a vital crossroads held by an opposing force company in a strongpoint position. The commander's intent is to destroy the enemy in and around the strongpoint, and to open the crossroads so that friendly forces can pass along the route. The commander's PIR focuses on four key points:

- Confirm and describe in detail the OPFOR positions controlling the crossroads.

- Find all enemy locations that support the OPFOR strongpoint.

- Determine the best routes into the objective.

- Determine the most likely routes for enemy reinforcement.

Given this mission and the commander's PIR, the S-2, with input from the entire staff and the subordinate commanders, develops his detailed IPB.

In Map 2, the S-2 has translated the commander's PIR and additional intelligence requirements into 18 NAIs and two TAIs. There are no guidelines for the number of NAIs or TAIs, but they should directly relate to the PIR and should support the information needs listed in the ground tactical plan. Common sense is the best guide for selecting NAIs.

Normally, a priority is assigned to each NAI. In the example, NAIs 1 and 2 focus on the objective area; NAIs 3 through 5 focus on known OPFOR locations; and NAIs 6 through 18 focus on routes, possible OPFOR locations, and reinforcing routes. The two TAIs address possible enemy reinforcing routes from the east and the south.

The staff and the subordinate commanders have taken part in this effort since the S-4 needed someone to look at

two bridges, NAIs 11 and 12, so he could move the combat trains forward during the battle. The S-3 and the subordinate commanders needed information for both the assault and the supporting positions—NAIs 13, 14, and 18. This process of selecting NAIs does not have to be time consuming, but it does have to incorporate input from all the key personnel in the battalion.

Once the S-2 knows where to focus his reconnaissance effort, he can then match the tasks with the available units. There are several ways to do this, but the matrix shown here is one useful tool. With a good matrix, specific intelligence requirements are not overlooked and units are not overtasked. (One of the major shortcomings at the JRTC is overtasking scout platoons.)

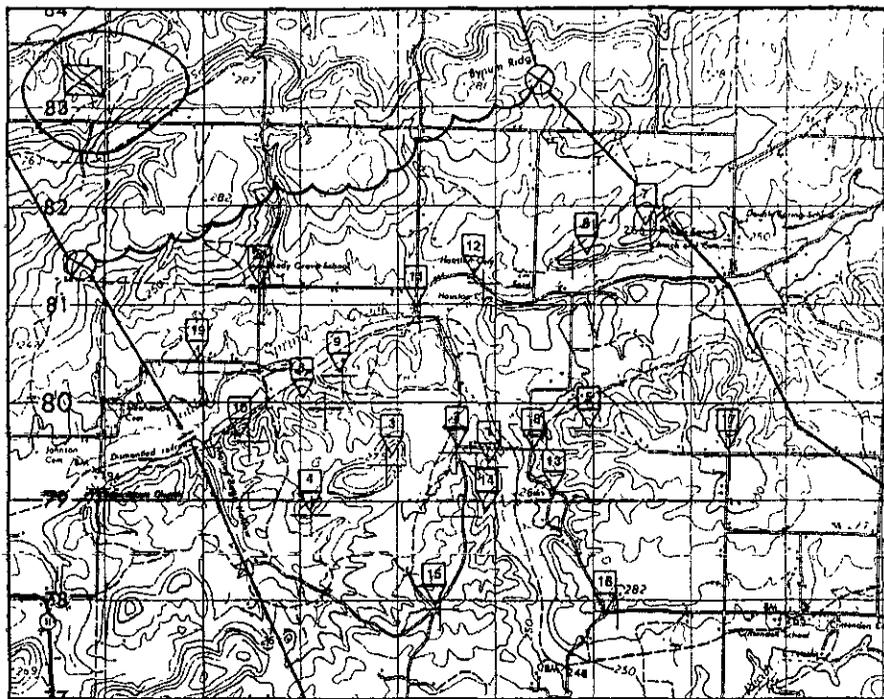
A point to remember is that the S-2 does not task the units, that is the S-3's responsibility. This matrix or a similar one is easy to construct and adapt to a unit's mission needs.

The scouts have the most difficult task, and the S-2 believes it will take them most of one night to move undetected into the objective area and get the information that is needed. Further, given the size of the objective area and the need to build some redundancy into the reconnaissance plan, all three scout squads need to work that area. The infantry patrols work the friendly routes and the OPFOR's reinforcing routes. The S-2 plans to ask the brigade headquarters to focus its signal intelligence efforts on the objective to help determine both OPFOR activity in the area and the command and control means being used.

In coordination with the battalion staff, the S-2 completes the reconnaissance plan. Trade-offs will be made to support the battalion's overall tactical plan. But with this detailed approach to reconnaissance, the battalion is more likely to obtain the information it must have to support its attack.

A final point that is critical to the success of the mission and its security is the information that is provided to the scouts and the infantry patrols. Map 3 shows all the NAIs translated into checkpoints and planned indirect fire targets. Reconnaissance units work best with

RECONNAISSANCE COLLECTION MATRIX								
SIR ASSETS	MANEUVER ROUTES		KNOWN OR SUSPECTED ENEMY		OBJECTIVE AREA		ENEMY RE- INFORCEMENT ROUTES	
	EAST	WEST	HILL 307	HILL 275	STRONG POINT	CROSS ROADS	EAST	SOUTH
SCOUT	NAI 10		NAI 4		NAI 2			
1ST SQD			NAI 3		EAST			
2ND SQD	NAI 14				NAI 1			
3RD SQD	NAI 13&18		NAI 5		NAI 1 NAI 2			
A CO	NAI 8-9-11							
PATROL 1								
PATROL 2								
PATROL 3								
B CO	NAI 6-7-12							
PATROL 1								
PATROL 2								
PATROL 3								
C CO							NAI 16&17	
PATROL 1								
PATROL 2							NAI 15	
PATROL 3								
OTHER ASSETS								



Map 3

detailed focal points, and they need to deploy with only the checkpoints and targets that are essential to their tasks on their overlays. For example: The Company B patrol will deploy with only

checkpoints 6, 7, and 12 on its overlay. If the overlay falls into the hands of the OPFOR, it will not compromise the entire mission. Further, these checkpoints can serve as link-up points between the

reconnaissance elements and the battalion's main effort.

A good reconnaissance plan alone will not win a battle, but without detailed information on an objective, a battalion has little chance to mass its forces and achieve a surprise attack. One of the keys to improving the attack is to get everyone involved in reconnaissance planning before orders are issued.

A detailed approach to reconnaissance yields other advantages as well: The IPB is improved; the entire staff is involved, so they routinely know more about the battle area; and the chances for mission success are improved, because time well spent on reconnaissance is never time lost.

Lieutenant Colonel Howard W. Crawford was the senior battalion observer-controller at the Joint Readiness Training Center when he wrote this article. He is now attending the Army War College. He previously commanded an infantry battalion in the 82d Airborne Division and served as a tactics instructor at the Infantry School.

Dragon Sustainment Training

STAFF SERGEANT DON F. METTERS

Dragon gunners are trained either at the Infantry School or in unit-run training programs, but these programs will not produce high-quality Dragon gunners unless the gunners also receive sustainment training to maintain their skills.

Appendix A of the Dragon manual, TC 23-24, gives some guidance on setting up a sustainment program and recommends a four-hour monthly program for each gunner. This program consists mainly of Skill Level 1 Soldier's Manual tasks—

Prepare a Dragon for firing, for example, and Demonstrate firing positions. But this program does not include tracking, which is the most difficult skill for a gunner to master and the easiest for him to lose.

While four hours a month is enough time for training on the Soldier's Manual Dragon tasks, it is not enough when tracking is included. The training time, accordingly, should be extended to at least eight hours a month. And this train-

ing probably should be conducted at battalion level to standardize the training throughout the unit and make it easier to plan and support.

In addition to the usual classroom subjects mentioned, the first part of the 8-hour training session should consist of classes on the tactics and techniques that potential enemy armored vehicles use and on the strengths and weaknesses of those vehicles.

The Army has some really good audio-

MONTHLY TRAINING SCHEDULE

0800-0830	Perform preoperational inspection and operational maintenance on a Dragon tracker and round.
0830-0900	Determine whether a certain target can be engaged with a Dragon.
0900-0930	Perform immediate-action procedures for a Dragon misfire.
0930-1030	Armored vehicle identification.
1030-1130	Film: How to fight the BMP M1973.
1130-1200	Brief for afternoon's training.
1200-1300	Lunch.
1300-1330	Movement to training area.
1330-1400	Orientation and safety briefing.
1400-1500	Instructional firing (sitting, foxhole standing supported positions).
1500-1700	Field firing (daylight).

SIX-MONTH TRAINING CALENDAR

Month #1	0800-1200 1330-U/C	Classes. Tracking (daylight).
Month #2	0800-1200 1330-U/C	Classes. Tracking daylight/LES firing.
Month #3	0800-1200 1330-U/C	Gunners test, written and hands-on. Qualification tracking.
Month #4	1330-1700 1830-U/C	Classes. Night tracking.
Month #5	1330-1700 1830-U/C	Gunners test for team competition. Tracking for team competition/LES firing.
Month #6	0800-1200 1330-U/C	Gunners test, written and hands-on. Qualification tracking.

visual training aids on these subjects that can be used in this training. Thus, this part of the monthly training session would provide a gunner with an acute knowledge of his weapon system and of ways to use it against his enemy's weaknesses.

The rest of the training session would

be dedicated to tracking practice, starting with instructional firing to make sure the gunner used the correct gunnery techniques in all firing positions. The instructors, ideally one for every three soldiers, should coach and correct the soldiers throughout their tracking. A soldier would fire once or twice in each of

the firing positions using a tracking time of five to seven seconds.

Once the instructor was satisfied with the soldiers' positions and tracking, he would move on to the next phase of the training session—field firing.

Field firing refines and sharpens a gunner's tracking skills. The tracking scenarios should start out as simple ones and increase in difficulty as the session progresses. There are many ways of increasing the difficulty of the tracking scenarios—increase the tracking time for each shot; have the target speed up, slow down, stop or move from covered position to covered position; and use smoke and pyrotechnics to simulate the battlefield. Throughout this training, trainers must keep realism in mind.

Both the day and the night sight should be used in field firing as well as in instructional firing. While instructional firing should be done only during daylight hours, field firing can be done during the day or night. If field firing is conducted during daylight hours one month, it should be done at night the next month.

The battalion can also use the monthly training session for quarterly qualification, when the time comes. The classroom time can be used to administer a written and a hands-on gunner test for part of the gunners' qualification and the instructional firing can be used to warm them up before they shoot for qualification.

An example is shown here of what a monthly Dragon training session and a six-month Dragon training calendar might look like.

Each unit must adapt its Dragon training to its own needs, but the level of training our gunners receive is directly related to the combat readiness of a unit. If we want to increase our ability to counter armored threats on the modern battlefield, we must implement and maintain realistic training for all our antiarmor weapons, and the best place to do that in the case of the Dragon is in the area of Dragon sustainment training.

Staff Sergeant Don F. Metters has served in the 1st Battalion, 504th Infantry at Fort Bragg and in the 1st Battalion, 6th Infantry, 1st Armored Division in Germany. He is now on recruiting duty in Yakima, Washington.



Field firing refines and sharpens a gunner's tracking skills.

Duffel Bag Delivery

CHIEF WARRANT OFFICER RAY L. SNELL
DONALD E. PIPPINS

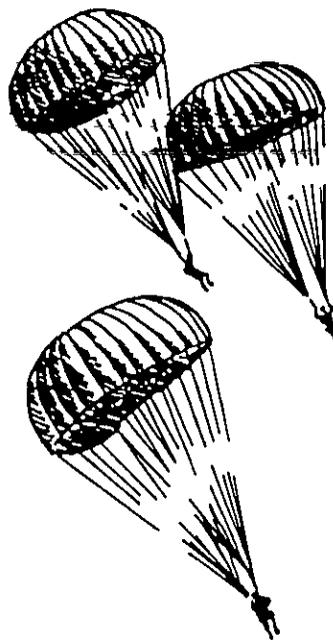
Let's assume that you are a platoon leader or company commander in a light infantry unit. Resupply has been a problem in the past, but it's now worse than ever because you have exceeded the reach of your supply trains. You are in desperate need of food, ammunition, water, and medical supplies and don't have the vehicles or the time to send someone to the rear to get them. Conventional airdrop methods are not practical because of time constraints and aircraft survivability. What do you do?

An over-exaggerated situation? Maybe, but not too far from what could really happen to light infantry units on a future battlefield. These smaller, lighter, and faster units lack the vehicles, equipment, manpower, and time to resupply themselves.

Some 18 months ago, staff members of the Infantry Center at Fort Benning began looking for an alternate means of aerial resupply to overcome this problem. Their goal was to come up with a system in which items of individual equipment currently in the Army's inventory could be used with virtually no modification. At the same time, they wanted the system to be capable of delivering up to 100 pounds of supplies from a rotary wing aircraft flying at altitudes of 100 feet or less and traveling at speeds of 90 to 125 knots. Finally, they wanted the system to be simple to rig and easy for one person to recover.

The first thing the staff members did was to consider the container delivery systems presently being used for aerial resupply—A7A; A21-A22; CTU; high-altitude, airdrop resupply system

(HAARS); and high-speed, low-level airdrop system (HSLADS). All of these systems were immediately disqualified because they required too much time, manpower, and supporting equipment. In addition, most of them required the use of Air Force aircraft as well as a major recovery operation once



the supplies were on the ground. The "Poncho Parachute" was also suggested, but this called for the delivery helicopter to hover and could only be used to drop small items that weighed less than 40 pounds.

Eventually, it was decided that the standard duffel bag and the aviator's kit bag could be used to package the necessary supplies. After considering the specified weight of the supplies and the

altitude and speed of the aircraft, the staff members decided that the best way to deliver the supplies would be to use high-velocity airdrops, because these systems were rigged with energy-dissipating material (honeycomb) under the load and a stabilizing parachute attached to the top of the load to keep it in an upright position. However, since no parachute or airdrop equipment was designed for the specified weights, altitudes, and airspeeds, the staff members had to conduct a series of test drops to find the best way to use existing parachutes to meet their requirements.

After a number of test drops, they determined that a nylon duffel bag (slightly modified) with supplies weighing between 60 and 100 pounds could be airdropped from an altitude of between 80 and 100 feet with the aircraft moving at an airspeed of between 90 and 120 knots. Two 68-inch pilot parachutes or one 12-foot high-velocity parachute with modified packing procedures were used to stabilize the supplies and slow the rate of descent.

Class I, II, V, and some III and VII supplies can be airdropped by this duffel bag system. It can be prepared or rigged by non-rigger personnel (MOS 43E) using the modified packing procedures. Since riggers are not organic to all the units that need this type of resupply, the parachutes can be purchased (\$33.00 each) by a using unit, then packed and stored for contingency use by the rigger unit designated by Army Regulation 5-9. The parachutes can be prepacked in large numbers and stored for future use, requiring only periodic inspections. When they are

needed, they can be issued back to the using units. Because the cargo parachutes are already packed, the system can be rigged in approximately 30 minutes. In fact, some systems can be pre-rigged and stored to be immediately available.

The duffel bag delivery system (DBDS) is an excellent way of resupplying a patrol without giving away the patrol's location if the drop is made at night. Using this system, too, squad-size patrols can establish cache points

throughout a sector to be used at a later date.

The DBDS also enables small unit commanders to tailor a load in response to immediate requests from units in battle, and having containers available for packing at the unit is a major benefit.

As units become lighter and smaller, their logistics support becomes a greater challenge. The faster supplies can be delivered to them, the less their soldiers will have to carry and the better chance those units will have of surviving and

completing their missions.

The DBDS is an immediate and alternate means of resupplying small units that lack the time, manpower, and resources to be resupplied on a timely basis by conventional methods.

Chief Warrant Officer Ray L. Snell is the senior airdrop equipment system technician for the Parachute Packing Branch, Maintenance Division, Directorate of Logistics at Fort Benning.

Donald E. Pippins is the Chief, Technical Assistance Branch, Maintenance Division, Directorate of Logistics, Fort Benning.

Thermal Gunnery Training

CAPTAIN STEPHEN E. BARGER

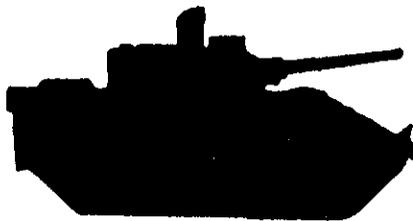
Thermal acquisition is a diminishing skill. During Bradley Table VIII B gunnery (crew night qualification), for example, crews often fail to acquire targets quickly enough to kill them within the standard time. Too often, units neglect thermal acquisition training because it requires training aids that are cumbersome, unreliable, and logistically draining. Today's conventional training aids—thermal blankets—require 12-hour batteries or generators; they are cumbersome; they have to be delivered, installed, and maintained; and they cannot always be used in extreme cold.

To conduct more effective thermal gunnery training, units must have reliable, low-cost, and readily available training aids to support the training, preferably of a kind the units themselves can make. Then they must place more emphasis on target acquisition during all weather and light conditions.

One such thermal acquisition training aid for Bradley and Improved TOW Vehicle (IFV) home station gunnery can be made by a unit from one-sixteenth-inch

sheet metal cut into silhouettes of enemy and friendly vehicles on a one-seventh scale. The silhouettes are then bolted to ammunition cans that have two-inch holes drilled in them for air. The ammunition cans are then filled with charcoal to provide a heat source.

An alternative design can provide two heated surfaces. In this design, two



silhouettes are bolted together with a trap to hold the coals in the bottom.

In both designs, a low-temperature solder can be added to the face of a target to accent such likely vehicle hot spots as the engine, barrel, exhaust, and road wheels.

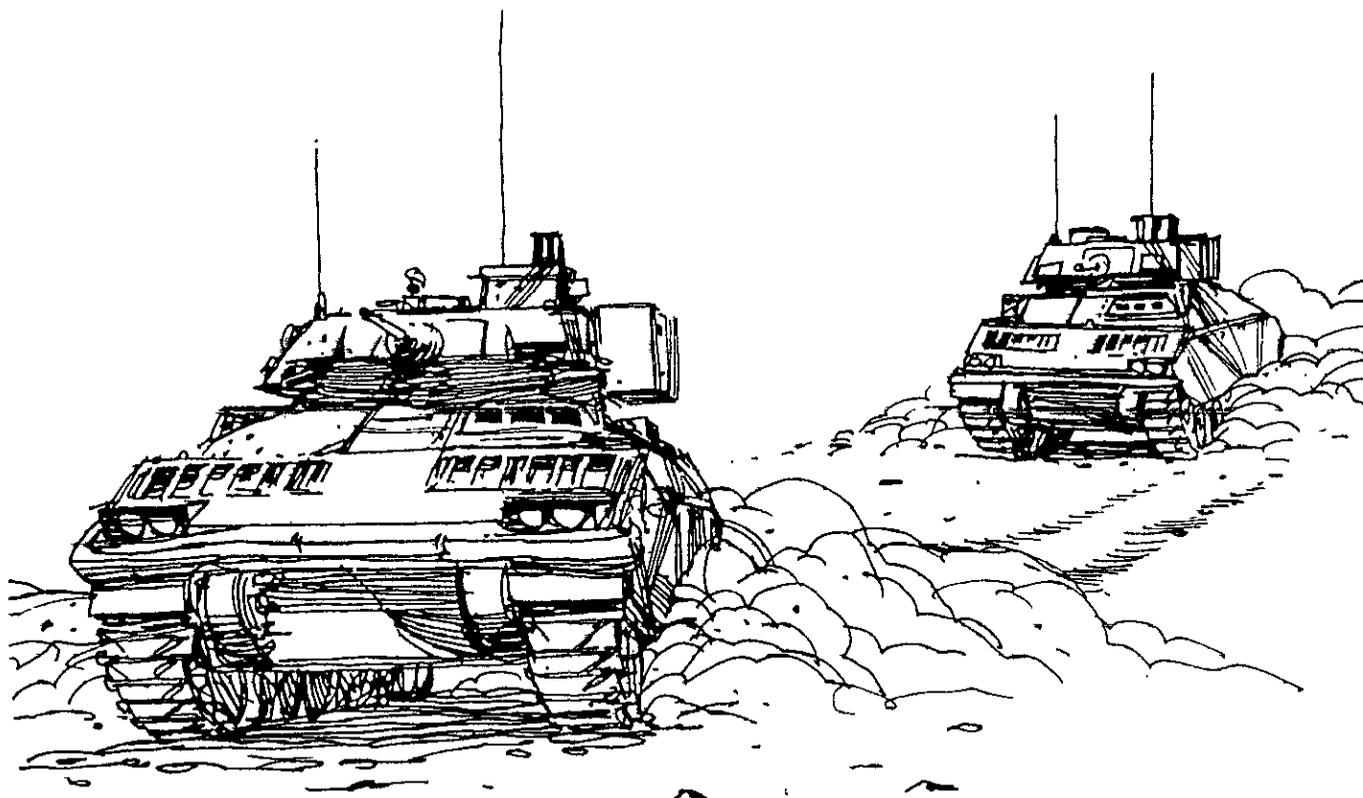
As part of a good overall gunnery program, these training aids provide many benefits. The silhouettes can be used to simulate both friendly and enemy vehi-

cles, thereby training gunners in vehicle identification. They can be used to represent wheeled and tracked vehicles in any formation, which allows a unit to train on crew, section, and platoon fire commands. Intelligence training in spot reports and enemy formations is also possible with these training aids.

The standard M31A1 lift device is also compatible with this training system, but the control box should be protected with aluminum foil. The silhouettes are simply bolted to the two-by-four-inch target supports. The ammunition cans prevent damage to the lift devices.

The targets are durable and allow for training in all kinds of weather. Wind, snow, fog, and rain have little effect on them when they are used with ammunition cans as the charcoal trap. The greatest benefit of this system is that it does not require any outside support. Each company can produce the targets it needs and can deploy to a local training area with only the targets and some charcoal.

No training aid is effective, though,



unless it is incorporated into an effective and sustained thermal gunnery training program.

Commanders must consistently dedicate time on their unit training schedules to the thermal acquisition of stationary targets in all weather and light conditions and to proper fire commands. This lays the groundwork for all thermal gunnery, while the habitual interaction of a crew in limited visibility conditions will establish good crew cohesiveness. Thermal gunnery also requires that added emphasis be placed on precise fire commands and acquisition methods to reduce the time a crew needs to identify and engage targets.

Once the crews demonstrate their proficiency in acquiring stationary unobscured targets, they must progress to identifying obscured targets. These targets are generally obscured by woodlines, defensive positions, or low heat levels. At this level of training, crews can begin moving on oval courses to identify stationary targets, both obscured and unobscured. Again, to prevent the crews from slipping back into using "faster" shortcuts, trainers must

place a high priority on discipline in fire commands and acquisition techniques.

On the oval course, a crew demonstrates its ability to acquire and maintain a steady lead on a stationary target while making only relatively minor changes in direction and attitude. The crew then progresses to a figure-eight type of course on which it engages multiple stationary targets. This course forces the crew members to work together as the vehicle and turret make independent changes in direction and attitude.

The final phase of sustainment training involves the interaction of first the lift devices and then MILES (multiple integrated laser engagement system) devices. Initially, a crew encounters unexpected targets that are raised by radio command. If a crew demonstrates proper techniques and turret manipulation during the dry fire phase, it progresses to a MILES figure-eight course. If a crew fails to meet the course standards, it must return to the previous course for remedial training. The key in this phase is to have the course that prepares crews for the MILES course readily available to facilitate any necessary retraining.

The overall success of a unit's performance on the night qualification tables depends on the emphasis the commander has placed on the thermal target acquisition training. This emphasis must *always* be reflected on the training calendar, not just when the unit is preparing for a gunnery density. Leaders at all levels must share in this emphasis and take part in the training; a leader's own performance on his qualification run sets the standard for the rest of the unit.

By using the locally produced silhouette target system, a unit can deploy and train without the usual support worries. The increased thermal gunnery training of Bradley and ITV units will readily improve the crews' proficiency and their scores on the qualification tables.

Captain Stephen E. Barger has led rifle platoons equipped with the M113 and with the M2 Bradley and now commands a Bradley-equipped rifle company in the 24th Infantry Division. He has also served as an ITV platoon leader and a Bradley scout platoon leader in the 3d Infantry Division. He is a 1983 graduate of The Citadel.

Training the Light Division

PHILLIP L. DIGEORGE

The role of light infantry forces in the Army today is an evolving one that requires first an understanding of their capabilities and then a training program that will make the most of those capabilities.

A light infantry division must be capable of deploying anywhere in the world on short notice. It most likely will not have time to channel its training efforts into the specific areas a specific deployment may require. It therefore needs a training program that will enable the commander to react quickly to any assigned mission with soldiers and

leaders whose basic skills are well honed and whose understanding of their likely missions will allow them to respond effectively.

The need has become evident for the Army to consolidate all the training techniques now in use throughout the light infantry community, to refine the techniques and evaluate them as to efficiency, and then to further develop them into a usable package and publish them. Additionally, this process would show the areas in which training criteria are not yet being developed or practiced.

An analysis of after action reviews at

both the JRTC and the National Training Center (NTC) at Fort Irwin, as well as feedback from light division exercises in Korea and other locations, seems to reveal certain common training deficiencies that need attention:

Familiarity with Crew-Served Weapons. Soldiers must be totally familiar with their weapon systems, not only the employment of the weapons but also their special characteristics and ammunition re-supply requirements. Each crew member must be drilled in the duties of all the other crew members so the system can still function if



casualties should occur

Mastery of Individual Weapons. Light division soldiers must make every shot count. To develop and maintain their marksmanship skills, soldiers must shoot whenever possible.

Understanding the Mission. All members of the force—from squad leader to task force commander—must thoroughly understand the commander's intent. This is absolutely vital when light units take part in stay-behind missions or deep reconnaissance patrols. Because their present communication systems have some weaknesses, the soldiers in light forces must be able to act in the absence of instructions and have their actions fit within the overall plan of an operation. Units must practice this in training and hone their skills thoroughly.

Navigation in Unfamiliar Terrain. Every member of a light force needs to be absolutely proficient in navigation. Infantry soldiers obviously, but all members of this austere force, need to be highly capable land navigators. For example, drivers of evacuation vehicles will need to navigate while mounted during both daylight hours and periods of limited visibility. Resupply vehicles will move singly in many cases, and Signal personnel will travel the battlefield in small groups.

Survival on the Battlefield. Survival encompasses not only the skills that prevent casualties but also the soldiers' stamina and ability to traverse inhospitable terrain and still retain their offensive capabilities. If a soldier is to carry everything he will need and still be able to cover the required distances on foot, his individual load must be carefully studied and refined.

The first aid requirements for a light

soldier are much more demanding than those for other forces, because it may take longer to evacuate a casualty; in some cases, the mission may entirely preclude evacuation. To make sure his soldiers are properly supported, a light leader must understand logistics more thoroughly than ever.

Ability to Communicate. Communications have a greater effect on light infantry missions than they may appear to have. While the commander's intent, properly imparted to subordinates, can help fill this gap, information has to flow both up and down to control the operational effort over an extended period of time. The training must involve such diverse aspects as communications between sister units; long range communication requirements; field expedient antennas; the use of civilian systems that may be in place; wire; command and control vehicles (both air and ground); motorcycles and their proper use; and other methods such as signalling mirrors and pyrotechnics. Communication SOPs must be developed and practiced until using them becomes second nature to the soldiers.

Augmentation Forces. Because light units will receive augmentation forces that are tailored to the situation, leaders must be able to understand what those forces are and how to employ them properly. Then they must practice these skills in training and ensure that their soldiers understand the capabilities of those units.

Engineer Tasks. Since there will never be enough engineer support available, light soldiers need to become familiar with certain engineer tasks. For example, they can perform some demolition skills and cross obstacles without waiting for the engineers to come forward. Addi-

tionally, the small unit leaders of a light force need to understand the use of engineers to an even greater degree than the leaders of a heavy force.

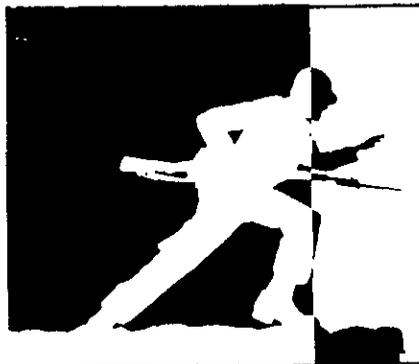
Functioning in Limited Visibility. In each light infantry training exercise, soldiers must be trained and evaluated until they can function almost as well in limited visibility conditions as they can during daylight hours. The equipment available now must be used to the fullest extent possible, and new ways of defeating the darkness must be devised.

Mastery of Restrictive Terrain. The ability to control urban and other restrictive terrain is vital to a light infantry division; facilities for training in these operations must be developed and used to their fullest potential. The urban operations facilities already available must be scheduled so that the greatest possible number of units can become proficient in this area.

These lessons must not be allowed to fade; we must not force new units and new individual replacements to re-learn them over and over again. We must analyze and refine them into useful tools for light infantry leaders.

Analyzing the training that has been conducted at the combat training centers and during other training exercises is within our capabilities. We have an opportunity today to train as we will fight the first battle of the next war, and trainers at every level from squad to division must exploit this opportunity.

Phillip L. DiGeorge is a retired sergeant major who has served for the past two years at the Joint Readiness Training Center. He previously served with the 7th Infantry Division at Fort Ord and has a total of 26 years of service in both mechanized and light infantry units.



ENLISTED CAREER NOTES



11M MASTER GUNNERS

Noncommissioned officers who hold MOS 11M and who want to become master gunners can take the BIFV Master Gunner Course on temporary duty enroute to their next duty stations.

The 14-week course includes instruction on the implementation of gunnery training programs, sustainment gunnery training on the UCOFT (Unit Conduct of Fire Trainer), and detailed maintenance of the turret weapon station and the fire and sighting and control systems.

The course is also designed to teach 11M NCOs how to develop and prepare quarterly unit gunnery training plans and how to conduct range operations.

To attend the BIFV Master Gunner Course, an NCO must meet the following prerequisites:

- Be in the Active Army.
- Be qualified in 11M MOS.
- Be in the rank of sergeant (promotable), staff sergeant, sergeant first class/platoon sergeant, and be recommended by his battalion commander.
- Have a GT score of 100 or above.
- Have eleven months time in service remaining.

An NCO who has received assignment instructions to an installation (either in or out of the continental United States) and who meets the prerequisites may attend the course on a TDY basis enroute to his next duty station. He should submit a DA Form 4187 (Personnel Action) and his current DA Forms 2A and 2-1 (Personnel Qualification Record). His personnel administration center can help him complete his application.

Interested NCOs who need more information may write to Commander, PERSCOM, ATTN: DAPC-EPK-I (MSG Crivello), 2461 Eisenhower Avenue, Alexandria, VA 22331-0452, or call their career advisors, MSG Crivello

or SFC Hartke, at AUTOVON 221-8056, commercial (202) 325-8056.

INFANTRY MORTAR PLATOON COURSE

Mortar gunnery has changed extensively over the past few years with the addition of the 60mm mortar and the mortar ballistic computer and with refinements in mortar employment.

The Infantry Mortar Platoon Course (IMPC) is designed to prepare indirect fire infantry (11C) NCOs to supervise and direct the fire of a mortar platoon in support of infantry combat operations. The course will broaden their knowledge of the tactical employment of an infantry mortar platoon, graphics, fire planning, mechanical training, and field firing exercises. It will also increase their knowledge of forward observer procedures, fire direction center procedures, and the mortar ballistic computer.

Infantry Branch at PERSCOM selects indirect fire infantry NCOs to attend IMPC in conjunction with permanent changes of station. NCOs who want to attend the course may submit DA Forms 4187 through their personnel service centers.

Before attending the course, these NCOs and their chain of command need to make sure they get the opportunity to work with all aspects of the mortar platoon. Interviews with NCOs who have failed to complete the course successfully have revealed that they were never given an opportunity to work with FDC procedures in their units.

Any eligible NCO who needs more information may call SFC Noriega, Infantry Career Advisor at AUTOVON 221-8055/8056 or commercial (202) 325-8055/8056.

PERSCOM TOLL-FREE LINE

The Total Army Personnel Command (PERSCOM) has a toll-free number for enlisted personnel who have questions about career development, upcoming assignments, and other personnel matters.

During normal duty hours, callers can speak with a staff member. After hours, they may leave a recorded message, and the call will be returned the next day.

The toll-free number is 1-800-255-ARMY. Callers who do not have access to a toll-free line may call commercial (202) 325-7793.

COMMUNICATING WITH INFANTRY BRANCH

Many soldiers wonder why they seem to be overlooked for career progression moves while their peers are selected for the choice assignments.

When making decisions on a soldier's assignment, the only thing PERSCOM has to go on is the soldier's records. The most important thing a soldier can do for himself is to make sure his records are correct and complete.

How does he go about doing this?

Every year, each soldier in the Army is asked to review his Form 2A, which is used to update the information on the Enlisted Master File (EMF). This information is put into the EMF by SIDPERS transactions at unit servicing military personnel offices and also by input to PERSCOM's computer from which assignments are made.

As an example, if Infantry Branch must provide soldiers for Drill Sergeant School, a list of soldiers who meet the requirements of AR 614-200 and the current permanent-change-of-station policies is requested from the computer. But a soldier who is eligible and would like to be a drill sergeant may not be on the

list if the entries on his Form 2A are not correct.

Some of the most common errors in the EMF are the date of last PCS, NCOES status, spouse's Social Security number (for the married Army couples program), and information for the Exceptional Family Member Program. Other errors are in skill qualification and additional skill identifiers.

It is up to each soldier to review the information on his Form 2A, to correct any errors, and to provide the documentation to support the corrections. If he does not understand all the information on the form, he should get some help from his unit personnel clerk before signing it.

STABILIZATION FOR CMF 11 FIRST SERGEANT POSITIONS

The most highly qualified and motivated senior soldiers must be selected and assigned to first sergeant positions. But if certain administrative procedures are not followed, these same NCOs could be nominated for overseas or other special management assignments and their parent units could prematurely lose their senior soldiers, even those who might already be filling first sergeant positions.

Once a senior soldier is assigned to a first sergeant position, it is the responsibility of his commander to inform Headquarters, Department of the Army (TAPC-EPK-I) by electronic message of the soldier's change of duty position and to request that Infantry Branch release him for first sergeant stabilization.

Since it takes time to process these requests for stabilization and forward them to DA, it is advisable to make a courtesy call to Infantry Branch inquiring whether the NCO is currently on assignment instructions.

If an NCO has not received assignment instructions at the time of this call, his records will be flagged and a memorandum of the conversation will be placed in his file. The file will then be placed in suspense while awaiting the electronic message requesting that Branch release him for first sergeant stabilization.

NCOs who are assigned to first sergeant positions and who meet the provisions outlined in AR 600-200, Chapter 8, Section IX, will be stabilized for 24 months (AR 614-5), except that overseas stabilization will not involuntarily exceed the normal tour length. The period of stabilization will not be adjusted because of an NCO's reassignment from one first sergeant position to another at the same station. AEA Code G will be awarded and reported under AR 614-200.

Soldiers who have already received assignment instructions will not be stabilized for first sergeant positions by installation or division commanders. PERSCOM will consider requests for deletion from assignment instructions only in exceptional cases (AR 614-200, Chapter 8, Section IX, Paragraph 8-67(b)).

Any questions concerning this matter should be directed to MSG Crivello, Senior Career Advisor; SFC Dunner, MSG/1SG Team Assignment Advisor; or Mr. Dennis Walker, MSG/1SG Team Assignment Manager at AUTOVON 221-8056 or commercial (202) 325-8056.

BNCOC REQUIREMENTS FOR SFC/ANCOC

Effective with the October 1990 selection board, staff sergeants must be graduates of the Basic NCO Course (BNCOC) to be considered for promotion to sergeant first class or for attendance at the Advanced NCO Course (ANCOC).

Exceptions are made for NCOs who hold MOSs that do not have a BNCOC and for staff sergeants who either have graduated from ANCOC or have been selected to attend this course by a Department of the Army board.

The exempted MOSs will be listed in a DA message to be released in the spring of 1990. The message will also announce the zone of consideration.

To ensure that good soldiers are not denied the opportunity to compete for promotion to sergeant first class or to attend ANCOC, commanders must give priority to staff sergeants when select-

ing NCOs to attend BNCOC.

Combat arms BNCOC quotas are totally controlled by local commanders with no nominations being provided by DA. The BNCOC Automated Reservation System (BARS), which nominates combat support and combat service support soldiers to attend their BNCOC, is giving priority to staff sergeants for nomination for CS/CSS BNCOC seats.

Commanders must ensure, however, that the soldiers nominated for these courses are not deferred except for cause or for extreme operational requirements.

Staff sergeants who have a date of rank of 31 July 1988 or earlier are likely to be in the zone of consideration for the October 1990 board. They should therefore graduate from a BNCOC before September 1990.

The DA Forms 2A and 2-1 for these NCOs must be up to date. Staff sergeants who have already completed BNCOC should make sure these forms reflect their course completion. Otherwise, they will not be considered by the board.

PLDC AND PROMOTIONS

Although PLDC became a prerequisite for promotion to sergeant on 1 October 1989, promotable specialists and corporals who have not graduated from the Primary Leadership Development Course (PLDC) will not lose their promotion status.

This change is intended to protect these soldiers' eligibility for promotion while they wait for PLDC training seats.

Under modified rules, commanders may continue to recommend soldiers for promotion to sergeant, even though they have not completed PLDC. These soldiers will not be promoted, however, until the first day of the month after they graduate from PLDC, even if they exceed the announced monthly MOS cutoff scores.

The Army is still firmly committed to linking training to promotion but wants to ensure that deserving soldiers are not denied promotion list standing because of matters beyond their control.

OFFICERS CAREER NOTES



REASSIGNMENTS BEFORE CONUS TOUR COMPLETION

The Army's goal for an officer's time on station (TOS) at a CONUS installation is 48 months, but the actual average TOS is 36 months for all grades.

There are many reasons for an officer to be reassigned earlier than 48 months. In many of the cases, officers are reassigned to attend schools such as officer advanced courses and command and staff colleges. But more frequently they are reassigned from TOE troop units to fill TDA positions that require officers with recent operational experience.

Commanders at CONUS troop installations should expect that many of their branch-qualified captains and majors (former company commanders, S-3s, and battalion XO's), and former battalion commanders will be reassigned after 36 months or less TOS, and some will move as early as 24 months.

Field commanders need to coordinate early with PERSCOM to determine future requirements for key officers they want to retain on brigade or division staffs.

Recognizing the effect of these losses on operational units, the Army has shifted its distribution policies to provide a greater input into troop installations from officer advanced courses and command and staff colleges and to pre-position battalion command designees wherever possible. The increase will ensure that troop units have an ample pool of talented commanders and staff officers, and the Army at large will benefit from officers who already have operational experience.

CSC SELECTION OPPORTUNITY

As a result of the 1988 MEL 4 Study, there have been several changes in the process for selecting officers to attend a

resident command and staff college. Approximately half of the officers in each year group will be selected.

The officers selected for promotion to major from below the zone will automatically be selected for CSC. The remainder of the year group will be considered four times from their 10th to 13th years of Active Federal Commissioned Service. The selections will be apportioned as follows: 40 percent on the first consideration, 40 percent on the second, 15 percent on the third, and 5 percent on the fourth.

With more below-the-zone selections for promotion to major (up to 10 percent of a year group) and a 40 percent selection rate by the first CSC board, more than half of a year group's selections will be completed by the end of the first CSC Board.

In the past, Infantry Branch has

advised officers who were not selected the second time they were considered to begin the Command and General Staff College (CGSC) course by correspondence. Now, PERSCOM is advising officers who are not selected by the first board to begin the nonresident course.

Selection for resident CSC has always been competitive and will remain so. Traditionally, about half of a year group attends a resident course, and that trend will continue.

SENIOR RATERS MUST DATE SIGNATURES ON OERs

Army-wide help is needed to ensure that the correct senior rater profile is entered on officer evaluation reports (OERs).

PERSCOM is still receiving many

INFANTRY BRANCH POINTS OF CONTACT

ASSIGNMENT AREAS	NAMES	TELEPHONE (AUTOVON)*
Branch Chief	LTC (P) Hook	221-7823
Branch XO	MAJ (P) Chamberlain	221-7823
Lieutenant Colonels		221-7823
Inf. Assignments	MAJ (P) Crosby	
Functional Area		
Assignments	MAJ Roberis	221-5511
Majors		
Inf. Assignments	MAJ Johnson	
Functional Area		
Assignments	CPT Koehler	221-5520
Captains Assignments	CPT Barclay	
	CPT Phillips	
	CPT McNulty	221-0207
Lieutenants		
IOAC Assignments	CPT (P) Rush	
Accessions/Ranger		
Assignments	CPT (P) Forrest	
Future Readiness		
Officer	CPT (P) Kirsch	221-0207
Branch Representative,		
USAIS, Ft. Benning	CPT Sewell	835-3611

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

Mailing address for Infantry Branch: Commander, PERSCOM, ATTN: TAPC-OPE-I (Room 4-8-67), 200 Stovall Street, Alexandria, VA 22332-0414.

Send requests for microfiche to Commander, PERSCOM, ATTN: TAPC-MSR-S, 200 Stovall Street, Alexandria, VA 22332.

OFFICERS CAREER NOTES

OERs on which the senior rater did not enter the signature date when he signed the OER, and this could cause problems.

If, for example, a senior rater fails to date his signature and a personnel clerk enters an arbitrary date, the wrong senior rater profile may be applied to the officer's OER.

YEAR GROUP 1983

FUNCTIONAL AREA RESULTS

The results of the Year Group 1983 functional area designation show the following distribution:

FUNCTIONAL AREA	FA CODE	PERCENT DESIGNATED
PsyOps/Civil Affairs	39	3.8

Personnel Programs		
Management	41	16.4
Comptroller	45	5.0
Public Affairs	46	4.4
Foreign Area Officer	48	5.7
Operations Research/		
Systems Analysis	49	11.8
Force Development	50	4.0
Research and		
Development	51	13.6
Nuclear Weapons	52	1.6
Systems Automation	53	6.9
Operations, Plans,		
and Training	54	24.4
Procurement	97	2.3

IOAC SCHEDULE FY 1990

The following is the schedule of Infantry Officer Advanced Course (IOAC)

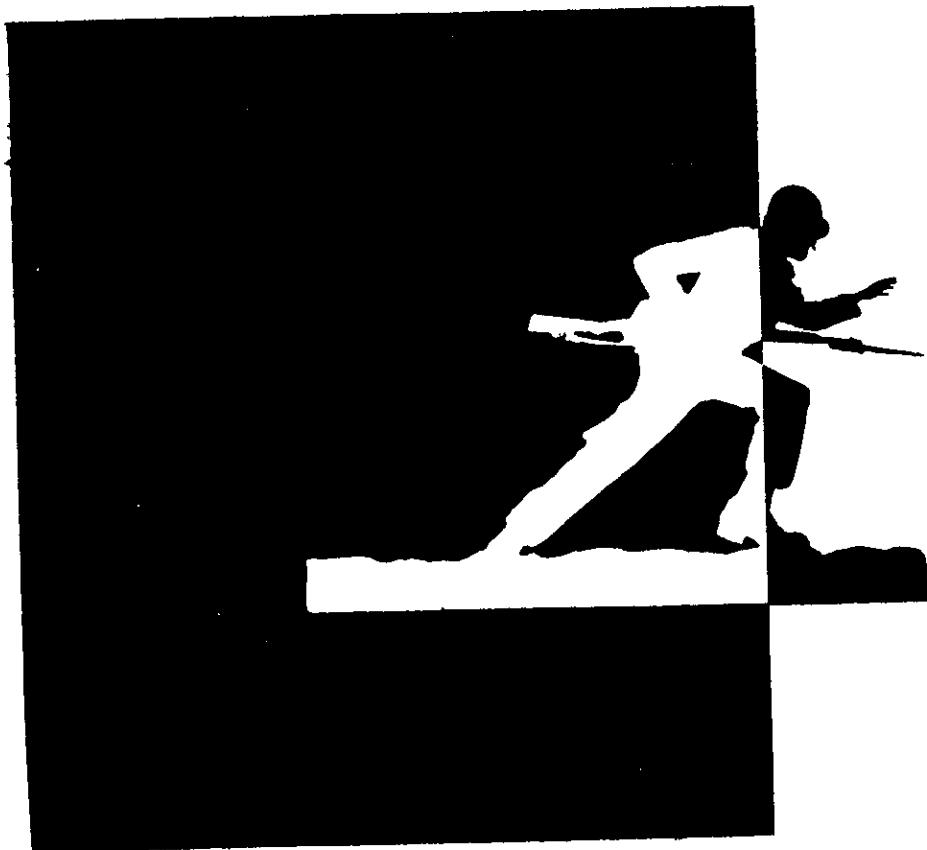
classes for the remainder of Fiscal Year 1990:

CLASS NO.	REPORT	CLOSE
	IOAC (20 weeks)	
2	28 Jan 90	19 Jun 90
3	29 Apr 90	19 Sep 90
4	15 Jul 90	6 Dec 90
5	26 Aug 90	1 Feb 91

IOAC (RESERVE COMPONENT) (12 weeks)

1	29 Apr 90	21 Jul 90
RESERVE FORCES IOAC, PHASE 1 (2 weeks)		
2	4 Mar 90	17 Mar 90
3	3 Jun 90	16 Jun 90
4	29 Jul 90	11 Aug 90

RESERVE FORCES IOAC, PHASE 3 (2 weeks)		
2	18 Mar 90	31 Mar 90
3	17 Jun 90	30 Jun 90



BOOK REVIEWS



In our July-August 1989 book review section, the reviewer of Dan Graham's *No Name on the Bullet: A Biography of Audie Murphy* (pages 50-51), said the book did not have pictures and a bibliography. He was doing his review from a set of page proofs, however, and these seldom contain all the material found in the published book. Such was the case here—the published book does contain photographs and a bibliography. We regret our poor editorial work and will do our best to keep it from happening again.

We think you will be interested in two newsletter-format publications that are available to the general public. Both contain much useful and up-to-date military information.

One is FOR YOUR EYES ONLY, a biweekly "open intelligence summary of current military affairs." It is produced by Tiger Publications, P.O. Box 8759, Amarillo, TX 79114-8759, telephone (806) 655-2009.

The other is a new one: WarPac NOTES, which states it is "the Warsaw Pact Ground and Air Forces Newsletter." The first issue makes a good impression; it is informative and is well laid out. It will be published on a bimonthly basis by Directed Studies Institute, P.O. Box 10296, Houston, TX 77206-0296, telephone (713) 691-6876.

All professional infantrymen with any interest at all in the higher direction of our armed forces will want to read two recently published books. The first is FOUR STARS, by Mark Perry (Houghton Mifflin, 1989. 402 Pages. \$24.95), "the first book to get inside the JCS and tell the story of its crucial role in our post-war history." It is also an outstanding study of civilian-military relationships, and the effect they had on our armed forces. Mark Perry is a Washington reporter who knows his way around Washington.

While Perry does not devote many pages to the Korean War era, the second

book does. It is HISTORY OF THE OFFICE OF THE SECRETARY OF DEFENSE: THE TEST OF WAR, 1950-1953, by Doris M. Condit (Historical Office, Office of the Secretary of Defense, 1988. USGPO S/N 008-000-00509-5. 756 Pages. \$42.00). This volume, the second in a series planned for the history of the Office of the Secretary of Defense, covers the period from June 1950 to January 1953. While the first eight chapters concentrate on the Korean War, the later chapters deal with budgetary considerations, NATO matters, military assistance, nuclear weapons, and internal organizational problems. Even then, the author admits there are other areas that could not be covered in any detail, notably Middle Eastern and Latin American affairs.

In general, we American military people know little about the important role the First Canadian Army played in northwest Europe between June 1944 and May 1945. Fortunately, there is a new book that tells us what we should have known all along. It is THE LONG LEFT FLANK: THE HARD FOUGHT WAY TO THE REICH, 1944-1945. By Jeffery Williams (A Leo Cooper Book. The Shoe String Press, 1988. 348 Pages. \$26.00). The author, an infantryman himself, is a native Canadian who commanded Canadian troops in northwest Europe during World War II and later in Korea. Now living in England, he combines a well-written narrative with many fine maps (some from the Canadian official history of the war) to detail the important role the Canadians played in liberating northwest Europe and the difficult tasks they were assigned in clearing the Channel ports and the Scheldt estuary, and in probably their most difficult campaign—the Rhineland operation between 8 and 21 February 1945, which was waged in appalling weather conditions and which cost them dearly.

A different sort of book is SHAM-

ROCK AND SWORD: THE ST. PATRICK'S BATTALION IN THE U.S.-MEXICAN WAR. By Robert R. Miller (University of Oklahoma Press, 1989. 248 Pages. \$24.95). This book nicely complements John S.D. Eisenhower's book on the war with Mexico, which we reviewed in our September-October 1989 issue. The author tells the story of an unusual unit in the Mexican Army, one that was composed almost completely of deserters from the U.S. Army. The Mexicans called this unit by various names during the course of the war and did not accord it a battalion designation until 1848. First as artillerymen, and then as infantrymen, the deserters fought against their former comrades at Matamoros, Monterrey, Buena Vista, Cerro Gordo, and Churubusco, where it was practically destroyed. The author concentrates most of his attention on the men who served in the unit and not on the unit's organization or tactical employment.

Although those who served in the battalion are still treated as heroes in Mexico, the author demolishes many of the myths about the unit and its members that have developed over the years. It is a book that is worth your while.

Here are several other books we want you to know about:

- NATO'S CENTRAL REGION FORCES: CAPABILITIES, CHALLENGES, CONCEPTS. By Anthony H. Cordesman (Jane's 1988. 278 Pages). This is another fine reference book in the publisher's Military Power Series, which it produces for the Royal United Services Institute. The author has written extensively on military matters, particularly on political and military activities in the Middle East. In this book he concentrates his attention on NATO's central region forces, or rather on the "nine very different sets of military forces" in the region. Emerging events may bring about certain changes in the author's statistics,

but until they do his book is one to keep handy.

• **BATTLE FOR MOSCOW: THE 1942 SOVIET GENERAL STAFF STUDY.** Edited by Michael Parrish (Pergamon-Brassey's, 1989. 210 Pages. \$40.00). The editor is an acknowledged expert on Soviet military matters. In this publication, he breathes new life into a long-forgotten study of Soviet World War II tactics. The study itself was done for the Operations Section of the Soviet General Staff in 1942 to capture the lessons of the battle for Moscow that lasted from 1 October 1941 to mid-January 1942. Primarily intended for internal use, it is, as the editor puts it, "a rare book, a Soviet scrutiny, warts and all, of a part of their own war effort and...a guide to how battles were fought and why their results were not always satisfactory." A reader may want to compare the Soviet views with those presented by former German Army officers in the German military studies series now being reprinted by the U.S. Government Printing Office (see *INFANTRY*, September-October 1989, page 48). Of particular interest to today's infantry unit commanders are the chapters titled "Reconnaissance" and "Combat Employment by Ground Troops of Smoke for Cover and Camouflage."

• **THE ILLUSTRATED FACE OF BATTLE.** By John Keegan (Viking, 1989. 304 Pages. \$29.95). We can add little to the mountains of praise that have been heaped on the narrative portion of this book since it first appeared in print in the author's *FACE OF BATTLE* in 1976. It has not changed in this book, although the author's new introduction makes for interesting reading. What the publisher has done is to add to that narrative more than 100 full-color photographs and black-and-white illustrations in an attempt to breathe life into the printed word. In some cases this has been done; in other cases, it should never have been attempted. But even if you have a copy of the original, look at this one.

• **UNITED STATES ARMY WEAPON SYSTEMS, 1989.** USGPO S/N 008-020-01161-4. 1989. 161 Pages. \$13.00, Softbound. This is the latest in the series of annual publications produced by the office of the Assistant Secretary

of the Army for Research, Development, and Acquisition. Following an introductory research and development section, the weapon systems and other equipment shown are grouped into eight categories by specific Army mission areas such as close combat and fire support.

There are also three recently published books on the famous Berlin Airlift, the Allied effort that went on from late June 1948 to early September 1949 to break the Soviet land blockade of Berlin. The books are:

• **THE BERLIN AIRLIFT.** By Ann and John Tusa (Atheneum, 1989. 445 Pages. \$25.95).

• **AIRBRIDGE TO BERLIN: THE BERLIN CRISIS OF 1948, ITS ORIGIN AND AFTERMATH.** By D.M. Giangreco and Robert E. Griffin (Presidio Press, 1988. 247 Pages. \$14.95, Softbound).

• **THE BERLIN AIRLIFT.** By Robert Jackson (A Patrick Stephens Limited Book. Sterling, 1988. 160 Pages. \$19.95).

As may be assumed by the number of pages in each book, the Tusas' is the most detailed, although its main concentration is not on the airlift itself. The two authors do not ignore the airlift or the events surrounding it; they simply have concentrated their attention on other events in Berlin and on the city's people themselves.

The Giangreco-Griffin book contains a large number of photographs that supplement a crisply done narrative. It is the only one of the three to discuss the aftermath of the lifting of the blockade and Berlin's situation today. They agree with the Tusas that "as long as Germany remains divided along the current political schisms, so will Berlin."

Robert Jackson, a Royal Air Force squadron commander during the airlift, properly concentrates on the men who flew the planes, on the planes themselves, on the development of appropriate command and control measures, and on the logistics of the overall operation—Operation *PLAINFARE* to the RAF, Operation *VITTLES* to the United States Air Force. His primary attention is focused on the RAF, but he certainly does not ignore the U.S. effort.

Here are a number of our longer re-

views:

RUDE MECHANICALS. By A.J. Smithers (Hippocrene Books, 1988. 216 Pages. \$39.95). Reviewed by Captain Harold E. Raugh, Jr., United States Army.

This interesting book is subtitled "An Account of Tank Maturity During the Second World War." It is a worthy sequel to the author's earlier book *A New Excalibur*, which chronicled the development of the tank during and after World War I.

The British Army pioneered the development of the tank and armored forces during World War I, and by the end of that conflict had more armored vehicles than any other nation. But this initial advantage was quickly lost through apathy and retrenchment. Other nations, though, recognized the tank's vast potential and started to build mechanized forces. By 1939 and the beginning of World War II, the British basically had no tank force or tank doctrine.

This easy-to-read book concentrates on the mechanical development and the characteristics and capabilities of World War II British, U.S., German, and Soviet tanks. Although he does not focus on the theoretical or doctrinal evolution of armored warfare, the author notes that Royal Artillerymen were against tank development, being afraid of a mobile gun platform that might steal their thunder. More than 50 fascinating photographs supplement the text, as does an enlightening foreword written by General Sir John Hackett.

The book makes a significant contribution to World War II historiography.

THE U.S. ARMY WAR COLLEGE GUIDE TO THE BATTLES OF CHANCELLORSVILLE AND FREDERICKSBURG. By Jay Luvaas and Harold W. Nelson (South Mountain Press, 1988. 360 Pages. \$21.95). Reviewed by Major Don Rightmyer, United States Air Force.

This is the third volume in the War College's Civil War series by the team of Luvaas and Nelson. (The first two covered the battles of Gettysburg and Antietam.) It provides an excellent study of

these two battles for either private study and reading or actual use while walking the battlefields.

The first half of the book is devoted to the battle of Fredericksburg. The authors unfold the sequence of the battle through the use of actual reports and recollections from those who were there. They provide detailed instructions to direct movement around the battlefield and detailed maps that portray unit movements throughout the battle.

The second half deals with Chancellorsville. The unit movements in this battle were far more complex and included Stonewell Jackson's famous march around the flank of the Union Army. The authors provide detailed orders of battle for both sides, an excellent essay on the role intelligence played during the three-day battle, and a complete index.

This book, and others in the series (about a dozen are planned), are recommended for study and use.

SECRET ARMIES: INSIDE THE AMERICAN, SOVIET, AND EUROPEAN SPECIAL FORCES. By James Adams (Atlantic Monthly Press, 1989. 440 Pages. \$19.95). Reviewed by Leroy Thompson, Manchester, Missouri.

The greatest strength of this book lies in the fact that its author is outside the military establishment: he is a British journalist who specializes in defense issues. As a result, he does an especially good job of analyzing the problems that have plagued U.S. special operations since the end of World War II. Unfortunately, his narrative sometimes takes on the tone of Yankee-bashing since he does not cast the same critical eye on special operations closer to home.

Still, the book does correctly highlight the fact that U.S. special operations forces have often found their greatest enemies in the Pentagon rather than in the Kremlin. This alone puts the book on the recommended list.

Unfortunately, the author does not have a special operations background, and therefore makes a number of obvious errors in facts and conclusions. For example, he continually confuses U.S. Marine Corps reconnaissance units with

U.S. Navy SEALs, and such errors do detract somewhat from his credibility.

VIETNAM: STRATEGY FOR A STALEMATE. By F. Charles Parker IV (Paragon House, 1989. 257 Pages. \$19.95). Reviewed by Doctor Joe P. Dunn, Converse College.

The book is the product of the author's Ph.D. dissertation. A serving U.S. Army officer, he has undertaken a large task—to develop the intricate interplay between the United States, the Soviet Union, and China during the Vietnam War.

Among his conclusions are that, first, the Johnson administration fought a war to contain China, which did not need containing; second, when Johnson realized this and determined the war could not be won before the 1968 election, he chose to abandon military victory as a goal in 1966, with the last two years fought merely to achieve stalemate; third, Soviet policy in Vietnam was dominated almost entirely by its conflict with China; and finally, the aim of Soviet policy until 1970 was to escalate the conflict and increase the costs of U.S. commitment, not to achieve Vietnamese victory. (After the U.S. withdrawal and the Sino-American rapprochement, the Soviets changed their policy to one of bringing a North Vietnamese victory in order to contain China.)

Although his damning indictments of the Johnson administration are interesting, the author proclaims rather than proves them. The documents on U.S. decision making are still too limited to verify his deductions, and his interpretations of Soviet and Chinese actions are drawn from their presses—an even less definitive source. In sum, the author has attempted more than he has been able to do, and he has chosen his evidence selectively.

The omission from his bibliography of two books that address the Vietnam triangle—Daniel Papp's *Vietnam: The View From Moscow, Peking, Washington* (1981) and Douglas Pike's *Vietnam and the Soviet Union: Anatomy of an Alliance* (1987) is troubling. Despite this book's intriguing theses, both of the other books are better.

THE MASKS OF WAR: AMERICAN MILITARY STYLES IN STRATEGY AND ANALYSIS. By Carl H. Builder (Johns Hopkins University Press, 1989. 240 Pages. \$10.95, Softbound). Reviewed by Captain Stephen A. Johnson, United States Army.

The author is presently a RAND Corporation senior analyst. In this book, he paints a picture of the military services that most people in uniform would probably take exception to. His intent is not to show what the services do wrong, but to "understand how they think and what they are likely to do in the future."

He describes the "enduring personalities" of the three major services to aid the reader in viewing each service's behavior. Thus, he says the Navy defines itself by its independence and stature, the Air Force by its technology, and love of flight, and the Army itself as being made up of the essential artisans of war.

He believes the Army is most susceptible to a disaster because of its present identity crisis. To him, the Army's traditional modest role of nation's servant (teaching citizen soldiers) was replaced by its glorious victories during World War II. Although these memories have been tarnished by Korea and Vietnam, they still drive the Army to its new "love of toys" and also help justify its piece of the budgetary pie.

While one may disagree with the idea of using "personalities" to explain why the services behave the way they do, the author's ideas are provocative. Military professionals should at least be aware of them.

THE AIR CAMPAIGN: PLANNING FOR COMBAT. By John A. Warden III (National Defense University Press, 1988. 193 Pages. \$10.00, Softbound). Reviewed by Captain David K. Taggart, United States Army.

The U.S. Air Force does not believe in the present AirLand Battle doctrine. That is the reluctant conclusion one must draw from this publication.

The author, a serving Air Force officer, focuses on the use of air power at the operational level, and by using

numerous historical examples, explains how a theater commander must first gain air superiority in order to conduct the overall air campaign. All too predictably, his study focuses on the Air Force's beloved bombers and fighters, while his historical examples—carefully selected to support his arguments—draw heavily on the World War II strategic bombing surveys. Thus, there are twice as many references to the Battle of Britain as there are to Vietnam.

He treats close air support lightly; in fact, he devotes only one chapter to it. He sees that support not as an integrated part of firepower but as a substitute for artillery. He does not even mention military airlift, aerial resupply, and air-borne operations.

Although the author does not claim that his thoughts represent current Air Force doctrine, there are indications in this book that a number of senior leaders of that service do hold the same views. This is most unfortunate.

CRADLE OF VALOR: THE INTIMATE LETTERS OF A PLEBE AT WEST POINT BETWEEN THE TWO WORLD WARS. By Dale O. Smith (Algonquin Books, 1988. 268 Pages. \$16.95). Reviewed by Doctor Charles E. White, USAIS Historian.

On a hot July day in 1930, the author, plus 312 other new cadets, were "welcomed" to West Point. At six feet, six inches in height, Smith was the tallest cadet in his class and the "yearlings" (members of the sophomore class who put the newcomers through their initial eight-week training period known as "Beast Barracks") tended to single him out. In fact, his height attracted the attention of most upperclassmen that year.

His ordeal and triumph is captured in this beautiful book, which provides a fresh perspective of what it was really like to be a "plebe" (a first-year cadet) at the "old" West Point.

What is so special about this book is the fact that it is based largely on the intimate letters to and from members of Smith's close knit family. We actually

see West Point as a young cadet saw it at the time, not as a sentimental "old grad" recalls it years later. Here are the candid and perceptive comments and feelings of a young man who had no idea what he was getting into. In short, this is a heartwarming story that offers a tribute to family ties and to the true meaning of "Duty-Honor-Country."

West Pointers will enjoy this book for its nostalgic look at their "Rockbound Highland Home" of half-a-century ago. The general reader, too, will enjoy this refreshing look at cadet life and will gain an appreciation of a system of training and education that has withstood the test of time.

RECENT AND RECOMMENDED

TAKING CHARGE: MAKING THE RIGHT CHOICES. By Perry M. Smith. Avery Publishing Group, 1988. 261 Pages. \$10.95, Softbound.

THE SITAPUR INCIDENT: THE AMERICANS AND CHINESE MEET THE JAPANESE IN BURMA, 1944. By Paul L. Tobey. Andrew Mowbray Incorporated (Lincoln, RI 02865), 1987. 188 Pages.

THRESHOLD OF WAR: FRANKLIN D. ROOSEVELT AND AMERICAN ENTRY INTO WORLD WAR II. By Waldo Heinrichs. Oxford University Press, 1988. 279 Pages.

ENCYCLOPEDIA OF THE WORLD'S AIR FORCES. By Michael J.H. Taylor. Facts on File, 1988. 216 Pages. \$35.00.

NAVAL HISTORY: THE SEVENTH SYMPOSIUM OF THE U.S. NAVAL ACADEMY. Edited by William B. Cogar. Scholarly Resources (104 Greenhill Avenue, Wilmington, DE 19805), 1988. 302 Pages. \$50.00.

THE NEW IMAGE-MAKERS: SOVIET PROPAGANDA AND DISINFORMATION TODAY. Edited by Ladislav Bittman. Pergamon-Brassey's, 1988. 262 Pages. \$24.95.

THE SAGA OF THE CONFEDERATE RAM ARKANSAS: THE MISSISSIPPI VALLEY CAMPAIGN, 1862. By Tom Z. Parrish. The Hill College Press, 1987. 237 Pages. \$15.00.

GAINES MILL TO APPOMATTOX: WACO AND McLENNAN COUNTY IN HOOD'S TEXAS BRIGADE. By Harold R. Simpson. Silver Anniversary Edition, 1988. Texian Press (Box 1684, Waco, TX 76703), 1963. 294 Pages. \$16.95.

JUNGLE DIVE-BOMBERS AT WAR. By Peter C. Smith. David and Charles, 1989. 182 Pages. \$29.95.

JACK NORTHROP AND THE FLYING WING. By Theodore Coleman, with Robert Wenkam. Paragon House, 1988. 352 Pages. \$24.95.

MILITARY CLASSICS. By Robert H. Berlin. Historical Bibliography Number 8. Combat

Studies Institute, U.S. Army Command and General Staff College, Fort Leavenworth, Kansas 66027-6900, 1988. 71 Pages, Softbound.

THE MARINE BOOK: A PORTRAIT OF AMERICA'S MILITARY ELITE. By Chuck Lawliss. Thames and Hudson, 1989. 189 Pages. \$35.00.

RETREAT, HELL!: WE'RE JUST ATTACKING IN ANOTHER DIRECTION. By Jim Wilson. Morrow, 1988. 349 Pages. \$19.95.

COUNTDOWN ON CONVENTIONAL FORCES IN EUROPE: A BRIEFING BOOK. Written by Jeffrey Boutwell, et al. Published by the American Academy of Arts and Sciences and Ploughshares Fund. November 1988. 24 Pages, Softbound.

GREECE: A PROFILE. Published by the International Studies Association (Athens, Greece: 24 Dimitriou Soutsou), 1988. 121 Pages, loose-leaf bound.

U.S. UNILATERAL ARMS CONTROL INITIATIVES: WHEN DO THEY WORK? By William Rose. Contributions in Military Studies Number 82. Greenwood, 1988. 209 Pages. \$39.95.

THE COMING SOVIET CRASH: GORBACHEV'S DESPERATE PURSUIT OF CREDIT IN WESTERN FINANCIAL MARKETS. By Judy Shelton. Macmillan, 1989. 246 Pages. \$22.50.

THE BERLIN RAIDS: R.A.F. BOMBER COMMAND, WINTER 1943-44. By Martin Middlebrook. Viking, 1989. 407 pages. \$24.95.

WAR AND PEACE IN CENTRAL AMERICA: REALITY AND ILLUSION. By Frank McNeil. Scribner's, 1989. 310 Pages. \$19.95.

ROOSEVELT AND deGAULLE, ALLIES IN CONFLICT: A PERSONAL MEMOIR. By Raoul Aglion. The Free Press, 1988. 237 Pages. \$22.50.

THE PENTAGONISTS. By A. Ernest Fitzgerald. Houghton Mifflin, 1989. 344 Pages. \$19.95.

CORREGIDOR: FROM PARADISE TO HELL. By Ben D. Waldron and Emily Burneson. Pine Hill Press (Freeman, SD 57029), 1988. 240 Pages. \$18.95.

FIRST ACROSS THE RHINE: THE STORY OF THE 291st ENGINEER COMBAT BATTALION. By COL David E. Pergrin, with Eric Hammel. Atheneum, 1989. 338 Pages. \$21.95

ARMIES IN LOW-INTENSITY CONFLICT: A COMPARATIVE ANALYSIS. Edited by David A. Charters and Maurice Tugwell. Pergamon-Brassey's, 1989. 272 Pages. \$45.00.

THE BRIDGE AT DONG HA. By John Grider Miller. Naval Institute Press, 1989. 200 Pages. \$16.95.

ARCHAEOLOGICAL PERSPECTIVES ON THE BATTLE OF THE LITTLE BIGHORN: THE FINAL REPORT. By Douglas D. Scott, Richard A. Fox, Jr., Melissa A. Connor and Dick Harmon. University of Oklahoma Press, 1989. 326 Pages. \$24.95.

FREEDOM OF EXPRESSION IN THE AMERICAN MILITARY: A COMMUNICATION MODELING ANALYSIS. By Cathy Packer. Praeger, 1989. 268 Pages. \$47.95.

From The Editor

69 YEARS

With this issue we mark the end of our 69th publishing year. Founded in 1921 as the Infantry School MAILING LIST, our publication—now called a professional bulletin—is the oldest continuously published service school journal in the United States (although no issues were printed in 1945 because of a paper shortage).

To all of our subscribers—old and new—we thank you for your support and expression of confidence. We ask that you continue that support in the coming year by renewing your subscriptions so that we can keep intact our record of service to the Infantry community.

If you know someone who might want to subscribe to INFANTRY but who does not know how to do so, please send us that person's name and address and we'll see that he gets the word, plus a free copy of one of our recent issues.

At this time of the year, too, you might consider entering a gift subscription for a relative, friend, or colleague. We'll send a special gift card in your name to the recipient.

To all of our readers and to all of our supporters at home and abroad we wish you a beautiful and bountiful Holiday season and all the best in 1990.

SUBSCRIPTION RATES

INFANTRY is available to subscribers at \$12.00 for one year and \$23.00 for two years. Foreign (non-APO) subscribers must add \$4.00 per subscription per year to cover mailing (surface mail) and handling charges. Foreign air mail rates will be furnished on request. Single copies are \$2.50 each if sent to a U.S. address.

Payment must be made in U.S. currency, by international money order, or by a check or draft drawn on a U.S. bank. For best service, payment should accompany each order, because we cannot start a subscription until we have received full payment for it. Checks, money orders, or drafts should be made payable to INFANTRY and mailed to P.O. Box 2005, Fort Benning, GA 31905-0605.

One-year subscriptions are not refundable. Two-year subscriptions are refundable, but service and handling charges will be deducted.



DEPARTMENT OF THE ARMY
INFANTRY (USPS 370630)
U.S. Army Infantry School
ATTN: ATSH-TD-M
Fort Benning, Georgia 31905-5593

SECOND-CLASS POSTAGE PAID
AT COLUMBUS, GA, AND AT
ADDITIONAL MAILING OFFICE

OFFICIAL BUSINESS

