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# Infantry

A PROFESSIONAL JOURNAL FOR THE COMBINED ARMS TEAM

# Infantry

A PROFESSIONAL JOURNAL FOR THE COMBINED ARMS TEAM

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## ARTICLES

- 19 **THE FIGHTING XO AND C'S<sup>2</sup>**  
Major Stephen C. Livingston
- 24 **SOVIET MECHANIZED AIRBORNE FORCES**  
Major Richard N. Armstrong
- 29 **DEFENDING AGAINST SOVIET FORCES ON URBAN TERRAIN**  
Lieutenant Colonel Lester W. Grau
- 33 **INFANTRY IN ACTION — D-DAY: Forty Years Plus One**  
Major General Albert H. Smith, Jr., U.S. Army (Retired)

## FORUM AND FEATURES

- 10 **CONCERNING "SAFETY"**  
Captain Thomas P. Kratman
- 12 **TRAINING REALISM AND SAFETY**  
Paul A. Dierberger
- 15 **DEATH OF AN OLD FRIEND: The M1911A1 Pistol**  
Major Walker D. Williams

## TRAINING NOTES

- 39 **MOUT AND THE INTER-ACTIVE VIDEO DISC**  
Staff Anthony dePass, Australian Army
- 40 **ITV COMBAT QUALIFICATION COURSE**  
Captain James W. Tompkins, Jr.  
Lieutenant Harry E. Mornston
- 42 **EXTENDED FTX FOR RC UNITS**  
Captain Tony N. Wingo

## DEPARTMENTS

- 2 **COMMANDANT'S NOTE**
- 3 **LETTERS**
- 6 **INFANTRY NEWS**
- 44 **ENLISTED CAREER NOTES**
- 46 **OFFICERS CAREER NOTES**
- 48 **BOOK REVIEWS**

## FRONT COVER

The United States Infantryman — master of the battlefield.

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# Commandant's NOTE



**Major General John W. Foss**

Chief of Infantry

In my note in the September-October 1984 issue of *INFANTRY*, I talked about one of the most exciting training challenges facing the TRADOC community — that of training our new light infantry force. Now I want to bring you up to date on the most recent light infantry happenings.

As most infantrymen know by now, our new light infantry units are unique in their organization, equipment, and training. They are "maneuver-based" rather than "firepower-based" units. In other words, by avoiding an enemy's reconnaissance, security, and engagement areas, they strike him when and where he least expects it. Light infantry operations are masked and take full advantage of darkness, limited visibility, foul weather, and restrictive terrain. Employing special tactics and "how to" techniques that emphasize stealth, light infantry uses the indirect approach to strike the enemy where his combat power is weakest and where we can concentrate ours.

Field Circular 7-15, Light Infantry Squad and Platoon Operations and ARTEP, Field Circular 7-14, Light Infantry Company Operations and ARTEP, and Field Circular 7-13, Light Infantry Battalion and Brigade Operations and ARTEP, describe the new tactics and techniques light infantry units use to accomplish their missions. Here, I would re-emphasize the fact that while the missions light infantry units will be called on to conduct are the same ones all infantry units conduct (deliberate attack, defend in sector, etc.) the tactics and techniques employed are entirely different. These units are not just lighter infantry doing the same things the same way. For light infantry units, therefore, we have developed "how to" techniques with names such as "stalking attack," "baited attack," "seamless web," and "elastic defense."

We did not develop these names — these techniques — simply because we had developed a new type of infantry. In reality, light infantry and its corresponding tactics are as old as the foot soldier himself. We have solid historical precedents for implementing those tactics that allow us to use the indirect approach to destroy the enemy or to break his will to fight. In many cases what we are doing isn't new, it's just a "re-bluing" of the old. It is important, however, that infantrymen recognize the difference in tactics and techniques, and the descriptive new terms help to emphasize that difference.

Light infantry is capable of deploying rapidly anywhere in the world to assist in defusing situations before hostilities can break out. Some infantrymen argue, however, that because of their smaller size light infantry units lack combat power and mobility

infantry units fight where their relative combat power and mobility is greater than the enemy's. Light infantry fights other light infantry anywhere, anytime. Light infantry units using maneuver (fire and movement) on close terrain close with and destroy enemy forces, including mechanized and armor opponents. With these considerations in mind, we can say that our new light infantry is a powerful force on the low-intensity battlefield and that it has significant utility on the mid-intensity battlefield as well. But all must recognize that if employed in the open against a heavy armored force, it will have difficulty executing the mission successfully.

Almost daily, new and exciting changes are taking place in our light infantry force. The platoon, company, and battalion circulars mentioned above are in the field.

The Light Leaders Course, conducted by the Ranger Department, is teaching light infantry leaders what to do, how to do it, and how to teach it. Thus far the leaders from seven battalions have graduated from the course, and we now expect to conduct at least 18 classes during Fiscal Year 1986.

Perhaps the most exciting thing that is now taking place is the light infantry certification process. The 7th Infantry Division is providing input from the field through squad, platoon, company, and battalion ARTEPs. This process will determine whether the light infantry division organization, doctrine, and equipment meet the need to accomplish light infantry missions in the manner we intended. The Infantry School is sending subject matter experts to observe the process. Based on the certification results, and if these show that such action is necessary, the School will improve the light infantry organization, doctrine, and institutional training to prepare the light infantry divisions to carry out their assigned combat missions.

As I have said on other occasions, in today's Army there are several infantries — and light infantry is one of them — but there is only one overall Infantry. The light infantry's basic combat mission is the same one all other infantry units have: to get to the battlefield and close with the enemy by fire and movement to destroy or capture him, or to repel his attack by fire, close combat, and counterattack.

But because the manner in which our light infantry units will carry out their mission is so different, we have developed a new training strategy for them. And in that training strategy the main thrust of our continuing effort is quite clear — to build highly proficient units made up of leaders and soldiers who are physically and mentally tough, units that are oriented toward low- to mid-intensity conflicts, and units that have the capability

# INFANTRY LETTERS



## SOVIET MOTIVATIONS

Captain David F. McDermott's article "The Invasion of Afghanistan" (INFANTRY, January-February 1985, page 19) is an excellent one. On the subject of the Soviet Union's motivation for the invasion, however, I would like to offer some more information.

It is common knowledge that the Soviet Union has had a long history of involvement in Afghanistan, and that it had a firm grip on the armed forces of Afghanistan at the time of the invasion, but let's review a few facts.

First, the Soviet Union had no apparent reason to fear the spread of Islamic fundamentalist activities within its borders. Although there were a few problems that would cause local flare-ups in the Central Asian Theater, they were not enough to promote an invasion of Afghanistan. Invading for that reason would only intensify the resolve of the Moslem population. If the Soviets felt that way, why should they take on any more territory with a predominately Moslem population? If the Central Region was under threat of revolution from fundamentalist Moslems, I doubt that the invasion would have helped quiet it.

It has been known for a long time that the major supporter of trouble in the Central Region of Soviet territories was Iran, not Afghanistan. So if the Soviets feared such influence, why didn't they invade Iran instead?

Judging from the Soviets' past foreign policy, the standard paranoid viewpoint of most Soviet high level planners, and a review of the military value of having Afghanistan as a land mass buffer for the mother land, another motivation is more likely: The Soviets may have invaded Afghanistan because they believed the United States would take military ac-

tion against Iran to recover the Americans being held hostage. The Soviet analysis of U.S. military movements and the level of concern of the Carter administration may have indicated to Soviet planners that an invasion was about to occur — an invasion that would have put an unfriendly force on their southern border.

The Soviets' view that the U.S. would invade Iran supported their belief that the U.S. would use the hostages as an excuse to control the oil-fields of Iran and shipping in the Persian Gulf, a proclaimed sphere of interest.

TRAVIS R. YORK  
Sarasota, Florida

## PT IN HHB

Commanding the Headquarters and Headquarters Battery, Division Artillery, 25th Infantry Division is a rather complex task. Even more complex is finding a physical training program to prepare the many types of soldiers (male, female, private to colonel, 18 to 50 in age) for a Silver Streamer test.

Needless to say, I was very interested in the method Lieutenant Colonel Lawrence B. Goodwin, Jr., presented in the September-October 1984 issue of INFANTRY (page 3). His ideas were implemented in my battery in the beginning of October. The battery PT leaders were allowed to choose any of the three conditioning drills. Interspersed in the exercises were three

We welcome letters from our readers and print as many of them as we can. Sometimes it takes a while before we find room for them. But keep writing on topics of interest to our readers, and we'll do our best to get your letters in, sooner or later.

sets of the four-count pushup. The three sets consisted of five, six, and seven repetitions.

After stretching and forming into three ability groups, the battery ran two miles. Then we did 12 repetitions to provide the "overload" needed, as outlined in the news item.

The previous Silver Streamer preparatory program consisted of a "crash" one-month period in which the battery went from PT three times a week to PT five times a week. I considered this non-productive and demoralizing to the soldiers.

This new method paid off in January when 155 out of 162 people tested passed. The unit averaged 235 points on the test. Out of the seven failures, four were because of pushups. (Two of the four had recently arrived from CONUS.)

I am confident that over a long period of time, Colonel Goodwin's method will pay even higher dividends. We will see in June. My soldiers are proud of their achievement and look forward to scoring higher next time.

A big Redleg thanks to you!

BRIAN M. LUDERA  
CPT, Field Artillery  
Scofield Barracks, Hawaii

## OBSERVATIONS FROM THE NTC

Having served at the National Training Center (NTC) for a year and a half, I would like to offer some observations.

In fourteen battalion rotations through the NTC, I saw two company commanders who really knew their stuff. I saw one who, if I had had the power, would have been fired outright, and four others who clearly did not have any idea of what they should

have been doing. The rest were good officers struggling with varying degrees of success to tie everything together.

I reached the point after about six months where, after a brief introduction to the commander and the first sergeant in their company area, I could tell within five minutes how that company was going to perform. I can't identify what I looked for or what I saw, but an impression jumped out and announced itself with a remarkably accurate picture of the unit's strengths and weaknesses.

I never saw a truly bad platoon leader. I saw lost, exhausted, confused, and green ones, but never a bad one. They did the best they knew how with what they knew, which was typically very little, judging from the woefully inadequate commanders' guidance. On at least two occasions a commander specifically pointed out a lieutenant and advised me to have patience with him since he was having real trouble. In both cases, that lieutenant's leadership and tactical ability turned out to be the saving grace of the company.

I have mixed feelings about NCOs. In nearly every case where an NCO was in charge of a platoon, I could count on that platoon to do well. Under a lieutenant, however, the results varied dramatically, although a platoon sergeant was always on station.

When I talked to those platoon sergeants, they would invariably preface their remarks with "that lieutenant" or "the lieutenant" and only rarely "my lieutenant." "That lieutenant" clearly does not have anywhere near the experience of "that platoon sergeant." There are two people responsible for training a lieutenant. One is the company commander, but the primary trainer is the platoon sergeant. This is a key disconnect and one that needs to be addressed by the NCO corps.

One way to resolve this problem is this: For the first 90 days after a new lieutenant comes on board, the platoon sergeant takes the hits for any shortcomings. After that, the lieu-

tenant takes them. Remember, lieutenants grow up to be captains, colonels, and generals, and it is important that these brash young officers learn to do it right.

The troops themselves continue to be magnificent. I have seen too many PFCs grab a team and do exactly the right thing at a critical point in the battle to believe otherwise. A classic example is a seven-man squad led by a specialist four who assaulted a hill held by two T-72s, a BMP, and a squad of dismounted infantry. With the battalion stalled, they went forward across a kilometer of open ground and up the side of the hill. By the time they had cleared the infantry and were preparing to go after the BMP, only three were left, led by a PFC. They killed the BMP and scattered the tanks. Then the PFC called battalion and told them the way was clear. Those guys exist in every company. We as leaders must recognize them and put them where they can do the unit the most good.

My final note is on the National Guard. I have had two National Guard units, and they are part of my earlier comments.

National Guard filler personnel have been used by several battalions successfully to the extent that whole platoons were sometimes Guardsmen. After three days they were indistinguishable from regulars. Overall, though, the problems were as one would expect: The lieutenants were green and the captains rusty. The sergeants were out of shape and the troops were significantly less disciplined than the regulars. Staff coordination was disjointed and unresponsive. But the critical point is that the Guard battalions rotating through the NTC have hit the center of the curve for all battalions.

My conclusions are these: We have a good Army with more iron and more depth than we realize. But we need to study up on a few things, such as the night attack and the delay. Most of all we need to re-invent battle drill, which is simply a set of automatic responses to a set series of actions.

For example, when the lead track of

a platoon is destroyed by a T-72 two kilometers to the front on the other side of a minefield, what does the rest of the platoon do? The second platoon? The third? The command group? The engineers? The ADA? If the response has not been planned and drilled beforehand, the disaster that awaits the unit could haunt it for a long, long time.

JAMES T. ROOT, JR.  
CPT, Infantry, USAR  
Carmel, California

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## DISAPPOINTED

I was disappointed by Corporal Darryl Ledbetter's comments (September-October 1984, p. 48) concerning my article on the platoon "Y" defense (January-February 1984, p. 39). I think he needs to spend some time in a good combat simulation center such as the one the 1st Infantry Division has at Fort Riley.

We don't want to concentrate or mass our forces in front of the enemy. We want to put them on his flank or rear. What we concentrate is our firepower by channeling the enemy into killing pockets and using all available resources to destroy him.

The platoon positions are attack positions for a highly mobile defense, and anyone aware of the capabilities of the Dragon and the M-2 and M-60 machineguns would know that these positions are mutually supported by the adjoining platoons. If one of the platoons were attacked, it would act as the anvil while an adjoining company went deep and acted as the hammer to strike the attacker from the rear. (I have platoon fireplans for this defense and will be glad to send them to any U.S. infantryman.)

Service support elements should take a long hard look at this defense because they are the least able to defend themselves. (Corporal Ledbetter needs to study threat capabilities for deep attack.) There is no secure area for service support elements, so we must incorporate them into the defense.

The thing that bothers me most is

Corporal Ledbetter's apparent lack of knowledge about sector stakes and the measures used to initiate, control, shift, and cease firing. Evidently, his unit doesn't have flares, or night vision sights either.

This Y defense is the Chinese V defense with a leg to the rear for flank and rear security. The enemy will be coming at us in waves when we mass; he will fix our positions and bypass us.

I hope that Corporal Ledbetter gets a chance to strap on some MILES gear and lay in this defense and take on one of the other platoons in his company. Remember — level open terrain and a little deception, wire, and mines.

DAVID J. ROBBINS  
PSG  
Wichita, Kansas

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### JUNIOR OFFICERS IN COMBAT

I am a former infantry officer and a PhD candidate in history. Among the projects I am working on is a study of junior officers in combat.

In connection with this study I would like to contact former infantry platoon leaders from the World War II and Korean War eras who participated in desperate combat, or who were involved in extraordinary leadership situations in those wars.

My address is 322 Aoloa No. 209, Kailua, Hawaii 96734.

OTTO LEHRACK  
LTC, USMC (Retired)

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### "SPIRIT OF AMERICA" SHOW

The U.S. Army Military District of Washington will stage its 25th "Spirit of America" pageant at the Capital Centre in Washington, D.C., 12-16

June 1985. Performances will be at 8:00 p.m. each evening with matinees at 2:00 p.m. on 15 and 16 June. Tickets are free but must be obtained in advance.

The show, with a cast of more than 500, uses dramatic tableaux to sketch the history of the Army, starting with conflicts between the colonial militia and the redcoats and ending with Vietnam. It features The Old Guard Fife and Drum Corps, The Army Drill Team, The Commander-in-Chief's Guard, and The United States Army Band — "Pershing's Own." About 75,000 people attend each year.

To obtain free tickets, anyone who is interested may call (202)484-6877 or write to Spirit of America, Fort McNair, Washington, DC 20319-5000.

M.J. LUNDBERG  
LTC, U.S. Army

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### FIRST DIVISION REUNION

The Society of the First Division (Big Red One), composed of the members of the First Infantry Division in World War I, World War II, and Vietnam, will hold its 67th annual reunion in Kansas City, Missouri, 31 July to 4 August 1985 at the Hyatt Regency Hotel.

Further information is available from Society of the First Division, 5 Montgomery Avenue, Philadelphia, PA 19118.

ARTHUR L. CHAITT  
Executive Director

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### SHAEF REUNION

Almost 10,000 American servicemen were assigned to Supreme Head-

quarters Allied Expeditionary Force (SHAEF) between January 1944 and May 1945. The first reunion of SHAEF veterans will be held this fall, and we need your help in finding these veterans.

The reunion will be held in London, England, beginning 7 October for one week. Participants will have the option of visiting Portsmouth, Normandy, Paris, and Reims during the following two weeks.

For further information, SHAEF veterans should contact SHAEF Reunion Headquarters, P.O. Box 59, Rumson, NJ 07760.

ALLEN PETERSEN

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### 36th DIVISION REUNION

The 36th Infantry Division Association will hold its annual reunion 28-29 August and 1 September 1985 in Houston, Texas.

For more information anyone who is interested may contact me at P.O. Box 2049, Malakoff, Texas 75148.

L.E. WILKERSON  
Secretary

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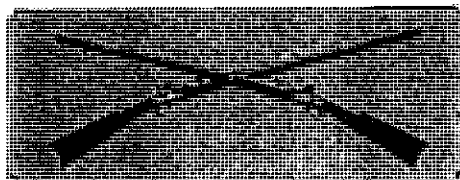
### INFORMATION NEEDED

I am making a study of counter-deception as a procedure to neutralize the effect of deception on a military operation.

I would very much appreciate it if any of your readers could send me any available information on this subject.

My address is Commandant J.P. Nel, P.O. Box 233, Rooihuiskraal, VERWOERDBURG 0154, Republic of South Africa.

J.P. NEL



# INFANTRY NEWS



FIELD MANUAL 22-5, Drill and Ceremonies, dated October 1984, is now being revised by the Infantry School. The revision process includes a May 1985 conference at Fort Benning and an Army-wide effort to solicit recommendations for changes. Individuals or units desiring to recommend changes to the manual are asked to use DA Form 2028, Recommended Changes to Publications and Blank Forms.

Until a new manual can be prepared, the October 1984 edition of FM 22-5 is to be used on an interim basis. A field circular (FC) will be published in September 1985, and the revised version of the field manual will be available during the first quarter of Fiscal Year 1987.

THE NEW HOT WEATHER battle dress uniform (BDU), previously scheduled for fielding 1 October 1985, will now be fielded at the end of December 1985. At that time the uniforms will be available for sale in military clothing sales stores in the United States and for issue in the clothing bag to new recruits. Overseas military clothing sales stores should have the new BDU by mid-January 1986.

Additional quality assurance measures not previously practiced in the military garment industry have caused the change in the availability dates.

COMPLAINTS ABOUT FADED pistol belts and belts with a red dye have been coming in to certain Department of the Army agencies.

It has been determined that the use of bleach in fixed laundry operations is responsible for the discoloration.

The correct laundering procedures for all web equipment is contained in Field Manual 21-15, Care and Use of

Individual Clothing and Equipment. All nylon load-carrying equipment items, therefore, should be individually cleaned according to the established requirements specified in the field manual. They should not be laundered by a field, fixed, or home commercial-type laundering operation.

THE 9mm BERETTA 92SB-F pistol has won the competition to replace the M1911A1 caliber .45 pistol throughout the Department of Defense.

The Beretta is considered more reliable and performs better than the M1911A1, and it is compatible with weapons and ammunition used by the NATO countries.

The choice of the Beretta was based on a thorough test and evaluation of eight weapons submitted by both U.S. and foreign manufacturers. The Beretta was one of only two weapons to satisfactorily complete the rigorous test program. It weighs 33.8 ounces with an empty magazine in place and 40.9 ounces with a magazine fully loaded with 115-grain bullets. The magazine holds 15 rounds, and a round can be safely carried in the chamber, because the safety mechanism secures the firing pin in place. The safety can be operated either with the left or the right hand, and the magazine catch can be reversed to accommodate left-handed shooters.

The Beretta's sights are similar to those on the M1911A1. The front sight is fixed while the rear sight is adjustable for windage. The weapon will come complete with holster and cleaning kit.

Long range plans call for approximately 500,000 Berettas to be bought to replace the 400,000 M1911A1 and 100,000 caliber .38 pistols in stock.

ARMY REGULATION 700-84, Unit Supply, is now being published as part of the *Unit Supply Update*. It is being reprinted every three months with all the latest changes. Blue pages contain instructions for noting the changes and provide an update bulletin for NCOs and specialists. The publication also includes an *Update Bulletin* as a pull-out sheet to give commanders and NCOs an overview of the changes.

THE 10TH MOUNTAIN DIVISION (Light Infantry) will be the official name of the newly activated 10th Infantry Division, and soldiers assigned to the division will wear the mountain tab above the division patch.

The activation ceremony for the new division took place on 13 February 1985 at Fort Drum, New York.

While there are no plans at this time for the unit to receive any specialized mountain training, the mountain designation reflects the division's heritage.

THE NAVY'S BLUE KNIT CAP has been adopted by the Army as the standard cap to be worn during outdoor physical training in the winter months.

Soldiers should be able to purchase the cap in clothing sales stores in early 1986. Commanders will be able to requisition the cap in November 1985 and issue it as part of a unit's organizational equipment.

The cap sells for \$1.81 in Navy and Air Force military clothing sales stores.

THE NATICK Research and Development Center, which is the Army's



proponent for food, clothing, shelters, and airdrop systems, has established a user's telephone hotline. The number is AUTOVON 256-5341.

Army issue and supply personnel are encouraged to use the hotline to report, discuss, or resolve problems they encounter with centrally procured and issued food, clothing, individual equipment, aerial delivery equipment, tentage, and rigid wall shelters.

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**QUALIFIED SOLDIERS** can now wear the Ranger or Special Forces tab replica on the uniforms they wear on formal occasions. Army uniform officials recently approved the metal replicas for wear on the blue and white dress uniforms, the blue and white mess uniforms, and the blue evening dress uniform.

Although soldiers may be qualified to wear both tabs, they are authorized to wear only one, whichever they choose. Soldiers should consult Army Regulation 670-1, Wear and Appearance of Army Uniforms and Insignia, for placement instructions.

The tabs will come in two sizes and should be available in clothing sales stores in July 1985. The replicas may not be worn on service, utility, or field uniforms.

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**THE LEGAL AUTHORITY** of noncommissioned officers is the subject of a videotape recently completed by the Office of the Army's Judge Advocate General. This 56-minute tape, "NCO Authority: Destroying the Myths," deals with the subject in clear, straightforward language.

MACOM sergeants major already have copies of the tape. Additional copies are available at the offices of the local staff judge advocate.

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**THE NATIONAL INFANTRY MUSEUM'S** director has submitted the following news items:

The Museum recently held a reception for the opening of a special exhibit of lithographs depicting military

and other world events during the period 1873-1912, an era known as *La Belle Epoque*. It was, among other things, an era of wars and revolts — the Spanish-American War, the Boxer Rebellion, the Russo-Japanese War, American Indian battles in the West, and attacks against the French and the Russian rulers.

This interesting collection of lithographs is a gift to the Museum from Colonel (Retired) and Mrs. James G. McConaughy; it will remain on display for a time in the Art Gallery.

A large display of historic artifacts was placed on display at the University of Georgia to celebrate the 200th anniversary of the date on which the University was founded. The display relates to the University and the military services and includes artifacts



from all of the major U.S. military involvements between 1785 and 1985. The exhibit was done in cooperation with the Army ROTC detachment at the University and the University itself.

On display now at the Museum is a U.S. Model M1911A1 caliber .45 pistol that belonged to Colonel Howard R. Johnson, the first commander of the 501st Parachute Infantry Regiment. He carried the pistol throughout his World War II combat days and was wearing it the day he was killed in action.

When he was taking his unit through jump training at Fort Benning during the early 1940s, Colonel Johnson would make three to five

jumps a day, depending on the weather, and from that earned the nickname of "Jumpy" Johnson.

Other interesting recent acquisitions include the Colt Python revolver used by Colonel Arthur "Bull" Simons during the Son Tay prison raid in 1970; a large German flag that was reported to have flown over Adolf Hitler's home; and a 19th century French pinfire revolver with bayonet.

The accompanying photograph shows a fiberglass packhorse fitted out with a Phillips pack saddle in the manner of those used by Merrill Marauder combat teams in northern Burma during World War II. The Marauders used animals to transport food, supplies, and equipment, and relied on airdrops for resupply. The display is on exhibit in the Ranger section of the Museum.

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

Additional information about the Museum and the Society is available from the Director, National Infantry Museum, Fort Benning, Georgia 31905, AUTOVON 835-2958 or commercial 404/545-2958.

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**THE DIRECTORATE OF COMBAT** Developments has provided the following news items:

- **Individual equipment items.** The Infantry School will be presenting a ration-heating device/canteen-cup heater and an improved sock for development and type classification to the Clothing Advisory Group.

The canteen-cup heater is used to heat such things as MRE pouches, beverages, and instant soups. The heating device has a ventilation system and an opening at the bottom front in which a trioxane tablet is placed, and it fits around the outside of the existing canteen cup for storage.

The improved all-weather sock, made of state-of-the-art materials, is

intended to replace the current olive green wool sock as a companion to the new combat boot.

• **Draft TOE for Ranger HHC.** The draft table of organization and equipment (DTOE) for the Headquarters and Headquarters Company (HHC), 75th Infantry (Ranger) Regiment was approved by the TRADOC review board 28 January 1985.

This small elite unit provides a tactical control headquarters capable of deploying with and controlling the Infantry Ranger battalions. It is also capable of acting as a field special operations force headquarters or as the Army component of a joint task force.

The unit provides for S-1, S-2, S-3, S-4, and S-5 sections, a small reconnaissance platoon, a communication platoon, a fire support element, and a medical support element. With a strength of 130, this unit is capable of deploying with or without its seven organic vehicles.

• **C<sup>3</sup>I Automation.** Representatives of DCD are attending a continuing series of workshops to develop command, control, communications, and intelligence (C<sup>3</sup>I) structures for Infantry proponent organizations that will use the latest technological advances in microcomputers, data distribution, and electronics.

The objective of the program is to achieve better communications and command and control with a reduction in electronic signature, a faster, more reliable transfer of information, and a possible reduction in personnel resources. This effort calls for innovative concepts and an increased challenge to industry and military managers alike.

A NEW PHYSICAL FITNESS policy announced by the Army's Training and Doctrine Command (TRADOC) affects students attending professional development courses at TRADOC's 24 schools.

Before 1 October 1984, students could be given up to 90 days after their school ended to pass the APRT. Now, students attending a professional

development course that lasts for 56 days or longer have to pass an APRT at the end of the course to graduate. Those students who do not pass the test will be designated non-graduates.

In addition, students now will be given a diagnostic APRT during the first week of their courses. Those failing the test will have to take part in a remedial physical training program. A final APRT will be given for record 30 days before a course ends. If a student fails the APRT, he may be retested as often as necessary until the day before his class is due to graduate.

Officer basic course students may be granted a grace period to graduate if they fail the final APRT. But they must pass an APRT within 90 days after their course ends in order to earn a diploma.

THE MEAL, READY-TO-EAT (MRE) has been part of the Army's tactical chow line since 1981. Yet members of the Troop Support Agency's traveling Food Management Assistance Teams have reported that a surprising number of soldiers do not know how to heat the meals properly.

All of the entree items and most of the side dishes in the 12 current MRE menu selections are precooked and vacuum-sealed inside individual packets. Two of the main courses (beef and pork patties) and some side dishes (potatoes and fruit) are freeze-dried.

All of the foods can be eaten either hot or cold. The freeze-dried foods can be heated by pouring hot water directly into the packets and mixing for a few minutes until the foods reconstitute. Cold water is usually preferred for the fruit products. The other MRE items can be heated by simply dropping the unopened packets into hot water.

Soldiers should be warned, however, that the water used for warming the MRE packets should not be used to mix the coffee and hot chocolate beverages. The Office of the Surgeon General has concluded that the packets may contain outside surface contaminants that are potentially hazardous. This water can be used for things

like washing hands or shaving, but it should not be consumed.

MREs can also be heated in other ways. For example, soldiers can heat the main entree packet over an open flame by moving it some two inches above the fire for about five minutes, or they can use the heat from a motor vehicle's intake or exhaust manifold.

While the MRE has met with general approval, soldiers have been critical of certain aspects of the ration. The Army is therefore modifying 5 of the present 12 menus and will increase the size of 7 of the entrees from 5 to 8 ounces. Plans for the future call for introducing a new breakfast item (a ham omelet) and a variety of cold beverages.

In addition, all dehydrated items will be dropped from the MRE. This decision was made because soldiers have said that they do not want to use the water they carry to rehydrate the food and that the packets are difficult to keep propped up when water is added. The dehydrated portions will be replaced by "wet packs." The fruit components will still be in the bendable packets but will also contain a liquid syrup solution.

Plans also call for developing equipment to make it easier for a soldier to heat his MREs.

The Food Management Assistance Teams report that a greater effort in command information is needed to instruct troops in the correct procedures for heating and consuming the MRE menu items.

AS A RESULT OF a series of recent field tests, the Army's Natick R&D Center has recommended that the Army Clothing and Equipment Board approve two new items: a tactical load-bearing vest and a large field pack.

The vest was designed to be a more efficient method of carrying individual fighting equipment. With this vest, instead of having to carry a lot of equipment around his waist, a soldier would have large cargo pockets in front to distribute the weight over his upper torso. Permanently attached

grenade and ammunition pouches are also on the vest, which leave room on the belt for other equipment.

For comfort, the vest's design incorporates laces and straps that allow adjustments to be made for individual torso length and girth. It is made of nylon fabric in a woodland camouflage print and weighs 1.8 pounds empty.

The large field pack was designed to let the combat soldier carry his mission existence load more efficiently under all environmental conditions.



Tactical load-bearing vest and large field pack.

With an internal capacity of 7,500 cubic inches, the pack has side pockets with compression straps located on each side of the pack to carry long narrow objects.

Besides being roomier than the current rucksack, the pack features a separate zippered compartment for the sleeping bag. This allows easy access to the bag and protects it in bad weather. As an added feature, the top flap pocket of the pack is removable and can be attached to the tactical load-bearing vest as a combat patrol pack.

A unique suspension system allows the pack to be custom-fitted to most soldiers. A torso bar allows the pack to be adjusted for length, while the inner frame bars can be bent to match

the contour of a soldier's back. Even with these added features, the large field pack in a light system.

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THE TROOP SUPPORT COMMAND'S R&D Center at Fort Belvoir recently awarded a contract for 45 position and azimuth determining systems (PADS). This is the first military system that can provide "real time" position, azimuth, and elevation data to fire support elements. It consists of three units — a computer/keyboard display, an inertial measurement system, and a power source. It can be installed in a jeep, truck, or helicopter.

This contract is an add-on to previous contracts for 222 PADS. Delivery of all of the units is scheduled to be completed in March 1987.

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THE ARMY HAS COMPLETED contract negotiations for a gamma and neutron personal dosimetry system. This system, which is the first of its kind, is already in large-scale production and service with the British Army.

By using this system, field commanders can calculate the radiation exposure states (RES) of their units. Knowing the RES will enable commanders to carry out realistic planning in theaters of operation where tactical nuclear weapons could be used, or have been used.

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A ONE-MAN OPERATED combat field feeding system, designed by the Natick R&D Center, is intended primarily for company size elements of the new light infantry divisions. The system will provide hot, nutritious meals to 150 people quickly and efficiently.

The cornerstone of the new system is the tray pack ration, which consists of entree, vegetables, starches, and dessert, all of which are thermally processed. The ration can be stored without refrigeration until needed; then it is heated and served.

The current design of the system was demonstrated and approved in January 1984. A single cook, using a minimum of equipment in conjunction with standard field burners and commercially available insulated food carriers and beverage containers, along with a pot and cradle for heating water, can prepare, deliver, and serve one T-ration meal a day. Two MREs (meals ready to eat) complete the daily rations.

The system can be used to support 150 soldiers, including two 25-man units operating at dispersed locations where central field feeding support is not available. When serving has been completed, unopened tray packs can be returned to storage. Empty containers are simply discarded, thereby eliminating the need for KP clean-up.

The kit can be loaded by two soldiers and transported on either a commercial utility cargo vehicle (CUCV), a high mobility multi-purpose wheeled vehicle (HMMWV), a 2½-ton truck, or a 5-ton truck.

The system is now ready for limited type classification and procurement.

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ENGINEER TRAINING in the Army will be consolidated at Fort Leonard Wood, Missouri, according to a recent Army announcement. The U.S. Army Engineer Center and School and the 902d Engineer Company will be moved from Fort Belvoir to Fort Leonard Wood sometime in 1989. Meanwhile, the headquarters of the Army's Intelligence and Security Command (INSCOM) will move to a new facility on Fort Belvoir, which will permit INSCOM to consolidate its headquarters elements at one location. Some phases of the INSCOM relocation will begin this year.

In conjunction with these relocations, the headquarters of the Army Corps of Engineers and the Army Medical Personnel Support Agency will also move to Fort Belvoir, while the Army's Criminal Investigation Command headquarters will move to Fort Meade.

# FORUM & FEATURES



## Concerning "Safety"

CAPTAIN THOMAS P. KRATMAN

There are those people in the Army, or working for the Army, to whom this statement will ring of heresy, but "safety" isn't everything; in fact, it is often not even desirable.

"Safety" is defined for the purposes of this article as an unreasonable preoccupation with reducing or eliminating injuries and deaths to the exclusion of all other considerations. Safety, on the other hand — without the qualifying quotation marks — is defined as the things a leader does to ensure that his troops are as well protected as possible consistent with accomplishing the unit's mission.

Nowhere is the difference between the current view of safety and the overreaction of "safety" more apparent than in our all-too-infrequent exercises with live ammunition.

Consider, for example, a few of the "safe" training exercises as currently practiced in the Army.

In the typical canned live fire exercise, a squad, a platoon, or a company negotiates a set problem against a well-known objective. The operations order (OPORD) for the problem is given to the unit commander. In other words, a platoon leader gets a platoon OPORD that tells him exactly how to position his supporting weapons and maneuver his squads. Controllers at every level make sure no man gets ahead of another. Lanes, sometimes marked with engineer tape, show every sub-unit exactly where to go.

Prepared positions are very obviously laid out for each individual to maneuver toward. These positions are in parallel banks so that no one can be endangered by getting ahead of a firer.

This sort of exercise isn't war; it certainly isn't training; it isn't even much of a show. It is ballet. The troops aren't fooled by it. They can see that they're considered bumbling incompetents and that their leaders are considered worse.

### PROBLEMS

The trouble with this sort of exercise is twofold. First, the exercise takes place under circumstances that would never occur in a war. Second, and far more devastating, each man is relieved of the responsibility he would have in a real war by "safety" officers and controllers. The leaders are not allowed to plan or control the problem; and the troops are not allowed to use any initiative in moving, positioning, or firing. All the great potential to be gained from such an exercise is lost in the interest of "safety."

As a result, we need not be surprised when, in the next major war (as in the last few), our leaders and men initially lack confidence in each other. Then "safety" will have cost us far more men than a more realistic attitude would ever have cost us in training.

The only thing worse than *no* train-

ing is *bad* training, and the totally canned live fire exercise is training at its worst.

Sometimes an unusually courageous commander will take a risk and allow his men to train in the employment of demolitions. Unfortunately, each step in the process will be rigidly controlled. Each man will prime the same meaningless lump of C-4, place it in the same demolition pit, ignite the fuze at the same time, move to the concrete reinforced bunkers 400 feet away, and wait for the explosion.

What are the objectives of training in demolitions? They are to train troops in the technical details of blowing things up and to give them the confidence to do so safely and effectively in war. The standard demolition training mentioned above may accomplish the first of these objectives, but it has a negative effect on the second. If anything, the men are trained to believe that explosives can be employed only if they are 400 feet away and there is a concrete reinforced bunker to hide in.

If the Army's philosophy that "the way you do it in training is the way you'll do it in war" has any validity (and I think it does), the result of this kind of training can only be bad. Bunkers will not be destroyed, obstacles will not be breached, and many men will die needlessly on the battlefield, all in the interest of "safety."

A similar level of confidence is instilled on a grenade range. Grenades

are the infantryman's hip-pocket artillery. They are to be employed at close range under almost any circumstances. But to employ them effectively, a soldier must have an appreciation of their faults and virtues as well as confidence in his own ability to use them.

So how do we train our soldiers to use hand grenades? First, we use inert dummy grenades to practice accuracy and procedures on reasonably realistic grenade assault courses. Then we throw the benefits of that training to the winds by terrorizing the troops on a live grenade range where the sole objective seems to be to get the grenade as far away as possible in the shortest possible time. No soldier can possibly gain any self-confidence with using hand grenades as a result of our standard live grenade range — just the opposite, in fact.

## VICTIM

Another victim of "safety" is guard duty, which is also training of a most important type. We issue the soldiers weapons (sometimes) and ammunition (less frequently) and send them off on their own to secure a vital piece of ground. This duty could have the effect of boosting the confidence of young soldiers who have been shown so little regard on live fire, grenade, and demolition ranges. The whole tenor of guard duty prevents this, however. Even if the soldiers are trusted with weapons and ammunition, none of them is allowed even to place a magazine in his weapon, much less to chamber a round.

Ever notice how infrequently accidents happen when the danger is clear to everyone? Ever notice how often they occur when least expected? From this we can infer a general rule — it is not necessarily danger that kills but a falsely perceived level of "safety" or an artificially induced fear. The man who drops a live grenade, for example, doesn't do it from carelessness but from a terror that drives out all reason. The man shot on a live fire range will most likely be shot by an im-

properly cleared weapon while sitting on a truck waiting to go home. Conversely, the man moving forward under machinegun fire pretty well knows he can't stick his head up very far without losing it, so he usually doesn't.

It would be wrong of me to attack "safety" this way without offering some positive suggestions to help in achieving real safety and high quality, realistic training that builds teams and confidence. I offer, therefore, the following:

**Use common sense.** When the only possible projectiles to be launched by demolitions are grains of sand, one can get very close indeed to the explosion because sand loses its velocity rapidly. Similarly when a bangalore torpedo is detonated under concertina wire the troops should be slightly below ground level and far enough away to be protected from the concussion (which is a distance of a lot less than 91.4 meters). Any wire fragments traveling along the ground will pass over them, and any wire thrown into the air will lose its velocity before returning to earth. A claymore mine can be safely fired four or five meters away from prone troops in the open as long as it's pointed away from them with a couple of sandbags behind it. A grenade can be placed inside a well-built bunker or a trench without danger to a prone man outside it.

**Use the chain of command to control.** Everything done by controllers and "safety" officers to ensure "safety" in a live fire exercise can be done as well by the chain of command with the added benefit of training that chain of command. For a little added surety, the evaluators can serve as auxiliary safeties. Their influence and interference, though, should be minimized.

**Give the OPORD for the next higher unit only.** Let each leader plan for himself how his unit will negotiate the problem, and let him issue his own OPORD.

**Allow adequate time for thorough troop leading procedures.** Any leader who has ever given a standard "safety" briefing on a range should recall for himself how little effect the

briefing had on the troops. They'd heard it all before. The best safety briefing is a good operations order. The best way to ensure real safety in live fire exercises is to conduct complete troop leading procedures, including rehearsals.

As an aside, by placing notional sister units along the right and left boundaries of the range fan, the firing limits can be clearly delineated and, rather than detracting from the realistic aura of the exercise, will actually add to it. The leader should be required to back-brief the evaluator (his actual or notional boss) to ensure that safety requirements are met (in other words, that the missions of adjacent left and right units are not hampered by the careless control of fire). Such back-briefs have as important a place in war as in training.

**Set up realistic conditions with a realistic enemy.** The ground should be of a type that we might expect to fight on and for in battle. Tactically sound, OPFOR-style obstacles and fortifications should be present. Targets representing the OPFOR must be armed, equipped, uniformed, and camouflaged. They should pop up and down, simulate return fire to include showing a signature, and have elements of intelligence value on them. They absolutely must be killable by accurate fire. It helps if they're cheap and easily manufactured out of locally obtained materials (ammunition boxes, E-type silhouettes, nails, wire and balloons, and sandbags).

**The evaluator and the man who planned the range should be one and the same.** Only if the evaluator is intimately familiar with the tactical plan or the OPFOR can he be expected to assess actions as correct or incorrect. For example, if, on a live fire platoon attack, a soldier gets up and makes a seven-second rush to put a grenade or an explosive charge inside a bunker, then an evaluator who is not intimately familiar with the obstacle set-up might well assess the man as a casualty on the spot for no other reason than that he took too long in his rush. On the other hand, if the evaluator set up the range and knows that the only

OPFOR position capable of engaging the man is suppressed by machinegun fire, he may well let the man complete his mission.

**Start small.** It would appear that the overwhelming majority of our combat units aren't ready for this type of training yet. It may even be necessary to start off with canned exercises. There is no tragedy in that. The tragedy is in never going beyond that. The canned exercise may be necessary to prepare the men for real training, just as real training is necessary to prepare them for war.

**Don't let "safety" cover up poor leadership.** If you have leaders who can be neither trained nor trusted to negotiate a realistic live fire exercise,

they simply don't belong in the Army. Get rid of them. In this sense, good live fire training can be an excellent tool with which to improve the quality of infantry leadership in the Army.

**Remember that accidents will still happen.** Accidents are the unavoidable cost of doing business in an intrinsically dangerous profession. I doubt, however, that well-trained troops undergoing realistic training will do more damage to each other than poorly trained troops undergoing poor training.

These suggestions are not pipe dreams. There is nothing that I have suggested here that I have not employed in live fire training myself. And I have never had a man injured or

killed on any of the several dozen such ranges that I have run. You can do as well or better.

The ogre of "safety" has ruled the Army for too long, distracting our attention, devouring our resources, emasculating our officers and men. The time has long since come to depose the tyrant and re-establish ourselves as warriors and men and our Army as a fighting team. This article is offered as a modest effort in that direction.

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# Training Realism and Safety

PAUL A. DIERBERGER

Many people in the Army have expressed concern over the performance of the combat battalions undergoing training at the National Training Center at Fort Irwin, California. This concern is, essentially, that these battalions do not always display the level of training and proficiency necessary for them to defeat the NTC's aggressor forces.

One explanation for these shortcomings is that the training the battalions get before going to the NTC is not realistic enough. And if it isn't realistic enough for the NTC's simulated battle, it isn't realistic enough for actual combat.

But *why* is the Army's training, in general, not realistic enough? A 1977 study conducted by SRI International (under contract for the Defense Advanced Research Projects Agency) blames, among several other factors, stringent safety requirements. That study says, in part, that "safety re-

quirements often make realistic training impossible," but that if the paramount safety requirements are ignored in the interest of realistic training, "the commander's career is in jeopardy."

There are at least six ways in which safety requirements can adversely affect training realism. They can:

- **Inhibit weapon firing.** For example, safety restrictions on hypervelocity tank rounds either preclude or greatly restrict firing this primary antitank round at most Army installations. The same is true for the 25mm gun on the M2/M3 BFV.

- **Break the continuity of action.** Too often in the conduct of a training scenario a unit must stop at an artificial phase line that exists for safety reasons only. During these stops, bores are rodded and the unit generally "steps down" for 15 minutes or more. The continuity and the dynamics of the attack are totally destroyed,

and realism is almost nil.

- **Restrict combined arms training.** Although the combined arms team is firmly entrenched in our doctrine, only occasionally is the concept fully employed in training. It is not employed because of the potential hazards involved in mixing infantry, armor, artillery, and aviation in a single training scenario.

- **Restrict the creation of realistic battlefield conditions and effects.** The use of such things as smoke, tear gas, simulators, and demolition blocks is often severely restricted in the interest of safety. Often artillery and mortar rounds have to be fired so far from the troops that they contribute nothing to realism and training value.

- **Restrict the application of tactical doctrine.** Fire and movement, overwatch techniques, and other fundamental tactical procedures are not easily adapted to live fire training

because surface danger zone criteria prohibit or severely restrict overhead fire and firing other than "on line."

• **Lock in conservative standards and procedures.** In some cases, rigid safety rules serve to discourage commanders from seeking innovative approaches to realistic training.

If these six effects of safety restrictions were absolutely essential in assuring a reasonable level of risk, there would be little or nothing that could be done to improve realism. The Army would simply have to depend on simulations instead of live fire or actual maneuver for realism.

Fortunately, this is not the case. Most of the effects described can be eliminated or at least alleviated by changing some of the outdated and overly restrictive safety procedures now in the Army publications. There are several areas in which changes could and should be made to improve realism without significantly affecting safety.

First, the Army could change its one-risk-for-all standards for surface danger zones and adopt instead a variable risk concept. Figure 1, excerpted from AR 385-63, depicts a typical surface danger zone. The shaded part shows the areas that must not be occupied while a weapon is being fired. The key point is that the shaded area is the same for everyone whether civilian (kids in schools and orphanages) or military (troops about to be committed to combat). (This is in sharp contrast to the Army's standards for the storage of ammunition and explosives. Here the Army establishes several levels of risk, and the highest risk to which soldiers can be exposed is much higher than the risk permitted for the public.) While it may seem commendable that the Army provides the same protection to its troops that it affords the general public when conducting range firing, the result is a severe restriction on realistic training.

Instead of a single, very conservative risk for all, a surface danger zone should show a series of risk levels. As depicted in Figure 2, the most conservative of these (ring 4) would be for

the general public (schools, churches, passersby). The commander would then be provided with empirically determined, progressively higher risk levels in the form of "risk rings" from which he could choose on the basis of a variety of factors — the experience level of his troops, their desired state of readiness, any special soil and terrain features of his area, and so forth. For those who question the propriety of exposing soldiers to a higher level of risk, it should be emphasized that the injury risk at even the highest level within these rings (x-ring) would be *below* that involved in other activities the Army routinely accepts without serious concern.

No one knows what criteria were used in establishing the current surface danger zones for most Army weapons as contained in AR 385-63. But that standard is believed to have been a one-in-one-million chance of a

skin-penetrating wound. Depending on the type of weapon, this could mean a one-in-ten-million chance of a disabling injury (since many fragmentation wounds are not disabling), and as little as a one-in-100-million chance of death. In fact, the Army has no record whatsoever of a disabling injury to anyone outside a surface danger zone from the effects of a properly fired, properly functioning weapon system.

One study of the relative risks for a variety of Army and non-Army activities reveals an extreme disparity between training risks, especially from weapon effects, and a variety of everyday risks that are routinely accepted — one death in 400,000, for example, from on-duty weapons-related incidents in 1982 compared to one in 2,500 from privately owned vehicle accidents. The obvious question is why do we insist on far higher

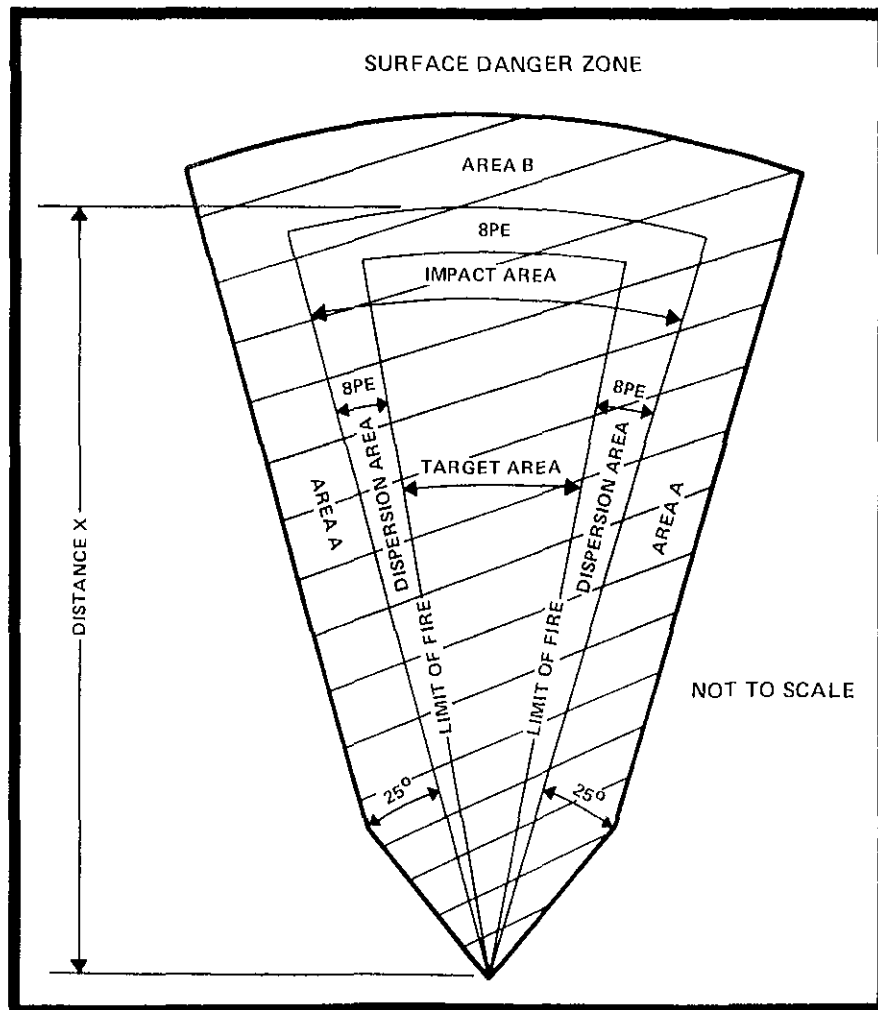


FIGURE 1. FOR MORTARS FIRING AT TERRESTRIAL TARGETS.

levels of safety in training, especially live fire training, than we routinely regard as satisfactory in our daily lives? The answer apparently is that we have never established reasonable levels of risk for training, nor have we ever categorized risks by type.

Clearly, a risk that does not produce any mission benefit has no place in an Army training situation. On the other hand, a similar risk that *does* provide a significant mission benefit may be not only acceptable but desirable. The prudent acceptance of such a risk in the interest of more effective training can obviously be beneficial in both humanitarian and operational terms. The key to success in balancing risks with potential benefits is that risk is increased only where it is necessary.

But what is the difference between

a foolish risk and a prudent risk? Exposing troops who cannot swim well to situations in which they could fall in the water without providing them with flotation devices or having immediate rescue capabilities is an example of a foolish risk. Nothing is to be gained from it in terms of realism. Allowing overhead fire from shoulder-held weapons, however, or fire from behind an advance position, is desirable in terms of realism because these fires would be routine in combat.

It is true that there might be a slight increase in the number of injuries and even deaths in training from this overhead fire, but these would probably be more than offset by better survivability in the unit's first week of actual combat. In other words, we should be willing to accept increased

risk in training when the payoff is high enough.

Another way to solve the safety-versus-realism problem would be to establish compatible safety standards for frequently conducted combat operations. Using, as an example, river crossings involving swimming the M113, as late as 1981 none of several manuals that deal with the subject (FM 7-7, 71-1, TM 9-2300-257-10) had complete guidance on basic safety procedures. In fact, a comparison of these publications revealed frequent direct conflicts on issues as critical as water entry speed, hatch configuration, and emergency procedures. As a result, the Army has had drownings in which the victims were poor swimmers or nonswimmers with no life preservers on board M113s that sank; they never had a chance. (The M113s sank usually because of poor vehicle swimming techniques.)

While some progress toward standardization has been made in this particular area, there are hundreds of similar examples in which casualties have occurred, both in training and in combat, simply because nobody had figured out the "right way" and made it available to the field. Much of the foolish risk-taking that occurs now could be eliminated by improving the standards. And this in turn would improve the climate for the acceptance of prudent risk.

The next step should be to limit accountability and sanctions against commanders to cases in which they took clearly foolish risks. Currently, most senior commanders don't consistently distinguish between training accidents that result from foolish risk-taking and those that result from prudent risk-taking. This attitude encourages battalion and company commanders to sacrifice training realism for the highest possible level of safety. After all, why should they be responsible for assuming a prudent risk if it is going to be treated the same way as a foolish risk when something goes wrong? Why take any risk at all if it could be damaging to their careers? The result of this kind

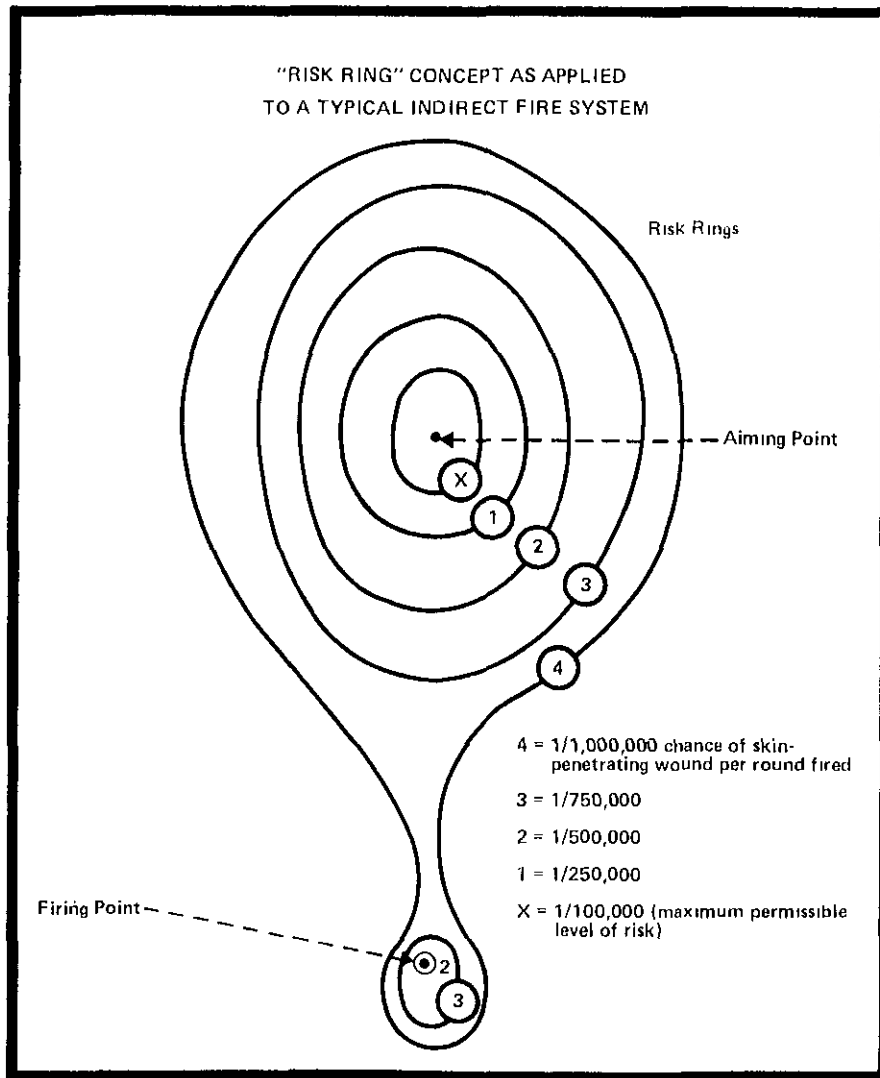


FIGURE 2



of thinking is all too often conservative, unimaginative, and ultimately ineffective training. Thus, the two types of risk need to be clearly defined in regulations and in practice. Then foolish risk-taking must be consistently punished, while prudent risk-taking must never be punished, regardless of the results.

The Army should also initiate a program of research on training realism to identify which risks really contribute to effectiveness. As an example, AR 385-63 currently establishes five meters over the heads of troops as the lower limit for overhead fire. It is reported, however, that one commander signed a waiver so that fire could be placed four feet above the ground. In this case, a standing soldier obviously could be hit — if he jumped up to avoid a rattlesnake, for example.

The key point is this: How high

over a soldier's head does a bullet have to pass for him to get the "snap" of the round and the realistic experience of being under fire? Can he hear or see the difference between a bullet fired four feet above the ground and one at, say, seven feet? If not, why assume the greatly increased risk of firing at four feet when firing at seven is just as realistic? The Army should conduct tests to determine this "realism threshold" and then make its risk decision accordingly.

There are literally hundreds of similar evaluations that should be made — and could be made fairly simply — that would enable a commander to know for sure, instead of having to guess, which risks are foolish and which are prudent.

Somewhere along the line, occasional losses arising from unnecessary risk-taking have caused us to drift into thinking that *all* losses must be

regarded as unacceptable. As a result, we have reached the point where training is one of our safest activities. But if that training does not satisfactorily prepare our soldiers for actual combat, then what good is it?

Many of our safety restrictions can be modified or eliminated with substantial benefit to realistic training but with little or no increase in risk to the soldiers.

The Army can achieve its combat readiness mission with reasonable safety to the public and its own personnel. Unfortunately, this won't just happen; the necessary actions must be taken *now* by the people responsible.

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# Death of an Old Friend: The M1911A1 Pistol

MAJOR WALKER D. WILLIAMS

The search for a service pistol for the military forces of the United States began in the late 1890s. The subsequent adoption of the Model 1911 pistol was the result of 13 years of research and testing. It, along with its 1926 modification, the Model 1911A1, has faithfully served millions of U.S. servicemen during the past 74 years.

Its reign has not gone unchallenged, however. In fact, during the past 37 years there were many attempts to replace it or to change its caliber. These attempts, until recently, all failed.

But the justification for a change was never as strong as it became in 1984 — what with NATO standardization requirements, Congressional

debate, and a Joint Service Operational Requirement for a personal defense weapon. Today, as we now know, a new weapon has been adopted — the 9mm Beretta 92SB-F — and our old friend the 1911A1 is on its way out.

As it passes, though, it is only natural (because of the importance of a sidearm to an infantryman) to eulogize the 1911A1 by reflecting on its rich heritage.

From 1898 to 1900, a board of Army officers convened to consider the suitability of a .38 caliber Colt weapon for adoption as a new Army revolver and to consider, at the same time, the possible adoption of an automatic pistol. During the first year

the board concentrated on the overall improvements needed in the Army's revolvers. Then, a year later, the board members stated that Colt's Browning .38 caliber automatic pistol appeared to perform so satisfactorily that it should be considered suitable for adoption.

First, though, endurance tests were needed to determine any weaknesses in construction and what effects continued firing might have on the actual life of the pistol. Accordingly, on 19 February 1900, the board began tests in which the pistol was fired 5,800 times. The weapon was simply constructed, easy to operate, and more accurate than a revolver, and only minor mechanical problems showed up on

the test. Its bullet was found to be too light, however, and the board recommended a reduction in the bullet's velocity, an increase in its weight, and a change in the caliber of the weapon — from .38 to .41. The board did conclude that the weapon was still suitable, even without these changes, and that it had numerous advantages over the revolver.

The board also suggested that, before adopting the Colt Browning, the Army buy 100 of them for field trials. This suggestion was adopted, and the weapons were bought and shipped to units in Puerto Rico, Cuba, and the Philippine Islands, and then issued to serving officers in those units. (In the Philippines, the new pistols were used in active combat against the Moro insurgents.) The weapon was also evaluated by cavalry officers in the western United States.

The pistol was praised for its accuracy, its simplicity of construction, and the rapidity with which it could be fired. Many officers remarked posi-

tively on its ability to fire eight shots without having to be reloaded, two more than with the revolver. The main criticism echoed a familiar complaint about automatic pistols in general: It required both hands to pull the slide back for loading.

Other negative comments referred to the pistol's poor balance, failure to eject empty cartridge cases when it was dirty, inadequate caliber, shortness and smoothness of the grip, and overall awkwardness. The officers also said that the front sight was too high and that it was impossible to tell at a glance whether the chamber was loaded.

Colt's engineers and John Browning himself reworked the pistol and modified the slide lock to hold the slide open after the last shot had been fired as an indication that the weapon was empty. Following a number of other modifications, the weapon, in .38 caliber, became known as the Model 1902 Colt Browning.

Colt tried to sell the weapon to the

British, but it was unacceptable to them because the caliber was smaller than .40. Colt considered developing a .41 caliber Model 1902 to satisfy both British and U.S. complaints about the inadequacy of the .38 caliber (9mm) cartridge. But this project was never started because the U.S. Army was concurrently conducting wound ballistics tests that eventually signalled requirements for a .45 caliber cartridge.

In 1904, the Army's Ordnance Office established a board to conduct a series of tests with bullets of different sizes and weights and to recommend a bullet that had greater shock effect and short-range stopping power than the .38 caliber bullet. The board experimented with 10 different projectiles from 7.65mm to 12.09mm.

On the basis of wound data, x-ray photography, and shock effect, the data from the tests tended to favor large unjacketed projectiles as man-stoppers. As a result the board concluded that a bullet should have a caliber of not less than .45 to produce



The M1911A1 and its replacement, the 9mm Beretta.

the shock effect and the stopping power at short ranges that a military pistol or revolver should have.

On 31 January 1906 the Ordnance Department sent form letters to inventors, manufacturers, and firearms representatives informing them of the Army's plans to test .45 caliber (11.43mm) revolvers and automatic pistols. The object of the test would be to determine which weapon was best suited for use principally by cavalry and light artillery units. Eighteen parties expressed interest in submitting handguns for trial, but only nine pistols were actually delivered. The trials in 1907 narrowed the field of competing handguns to a Colt .45 caliber pistol and a candidate weapon submitted by the Savage Company. The board stated:

*Among the most desirable features of the Savage pistol are its simplicity and small number of parts and their accessibility, the lack of screws or flat springs, the number of cartridges (eight) held by the magazine, the position of the center of gravity and the way the pistol lies in the hand, the expulsion of the magazine by the pistol hand, and the ease with which the breech mechanism may be withdrawn. Among the most desirable features of the Colt pistol are its flatness, compactness, neatness, and ease of carrying, the comparatively short total length, and the ease with which the breech mechanism may be withdrawn.*

The testing officers noted that both weapons required significant changes and cited inadequate safety mechanisms as one of their major faults: The Savage could be improved with wooden rather than metal grips, and its front sight could be improved and more securely fastened; the Colt's trigger and hammer spur also needed improvement; and the pistol needed a more convenient magazine release. The board recommended field trials in 1908 for both pistols because the tests, which had been conducted at the Springfield Armory, could not duplicate the punishment the pistols would receive at the hands of the troops. The Chief of Ordnance endorsed the

board's recommendations and ordered the purchase of 200 improved versions of each candidate weapon.

Unfortunately, the Savage Company lacked the technical and financial resources to compete with the Colt organization. Savage was plagued with basic design problems and had difficulty in getting its weapons to function satisfactorily with the test ammunition, made by the Union Metallic Cartridge Company of Bridgeport, Connecticut. The Savage Company also lost important documents that were required to complete the contract negotiations and discovered that it could not produce weapons with interchangeable parts in time to meet the delivery date. The company did obtain a waiver that allowed it to submit pistols without interchangeable parts. Difficulties with those pistols continued, however, during 1908: Magazines came unlatched during fire, and the pistols would not readily feed ammunition. The bolt hold-open device was often activated while the magazine still had cartridges in it, and the magazine was difficult to remove and insert.

Colt had also agreed to deliver 200 .45 caliber pistols for field trials. Its prototype 1907 pistol had a spurhammer, a rigid lanyard loop, a grip safety, a modified ejection port and ejector, and a frame cut for the attachment of a shoulder stock-holster. Ordnance officials agreed with the basic design elements but suggested that the shoulder stock was unnecessary. Although the 200 Colt pistols were delivered three months late, they were issued and tested in the fall of 1908.

The initial test reports on the Colt were discouraging. The pistols broke sears and firing pins and jammed repeatedly. The sear problem was corrected and John Browning and Colt employees reworked the .45 caliber pistol. They also corrected four other major defects: The two-link locking system was replaced by a one-link system; the grip safety was improved and simplified; the magazine release was repositioned to allow release of the feed device with the shooting hand; and the ejector was improved.

This pistol, similar in design to the 1911 model later adopted, is usually known as the Model 1909.

Tests of this model were conducted at Fort Myer and Frankfort Arsenal, and Browning gave a demonstration at the School of Musketry. Both the Arsenal and the School recommended further consideration of the weapon.

By the spring of 1910 the School of Musketry and the Field Artillery Board were convinced that a self-loading pistol of the Colt-Browning type would be desirable, but the Cavalry and Infantry Boards remained unconvinced. To resolve the opposition to the 1909 model, Browning developed a new prototype and called it the Model 1910.

When the Model 1910 experienced several initial failures at Fort Myer in February 1910, Browning reworked a number of the design aspects. Subsequently, the Model 1910 received praise from both ordnance officials and the Infantry Board, but the Cavalry Board continued to oppose the adoption of an automatic pistol.

The Colt 1910 and an improved Savage pistol were tested on 10 November 1910, beginning with an examination of the weapons and their safety devices. Field stripping and complete disassembly were performed and timed. Velocity, penetration, accuracy, and endurance were measured. Both weapons experienced malfunctions and broken parts during the test but were rated superior to the Army's revolver. The test board stated that neither automatic pistol "in its present design" was satisfactory for adoption in the service "because of insufficient strength of parts and in the case of the Savage of insufficient reliability of action," but went on to say that the Colt automatic pistol was believed to be much the better gun.

As a result of these findings, both Colt and Savage further modified their pistols. Colt designated its new design the Model 1911.

On 3 March 1911 the test board was reconvened to examine the modified Colt and Savage pistols. The board found that the performance of the Model 1911 Colt was "almost fault-

less," but that the Savage experienced 32 malfunctions and a number of broken or damaged parts. The board clearly favored the Colt-Browning Model 1911 and submitted its report to the Secretary of War who, on 29 March 1911, approved the selection of the model. (Colt, Remington Arms, and the Springfield Armory produced a total of 723,275 of these pistols between 1912 and 1919.)

After World War I, the Cavalry Board and the Springfield Armory recommended that the Model 1911 be modified to reduce the width and the length of the hammer spur, to lengthen the grip safety tang, and to provide an arched mainspring housing. Colt prepared five weapons with these modifications and submitted them to the Ordnance Department, which directed that the changes be incorporated into all future weapons.

A continuing need for personal defense weapons in World War II led to the mass production of 1,878,742 pistols. Even with this tremendous number of weapons on hand at the end of the war, a replacement for the Model 1911 was soon being considered.

Following World War II, and as early as 1948, the Army began testing potential replacements for the M1911A1. The Smith and Wesson Company, for example, developed a double-action 9mm automatic pistol and submitted prototypes of it to the Springfield Armory for testing. After testing the weapons, the government requested a single-action version, and Smith and Wesson submitted five such weapons to the Army. Although the test results were exchanged between the factory and the Armory, the project was not continued, because NATO standardization requirements began to affect the search for a replacement weapon.

In 1962, NATO developed its STANAG 4090, which called for standardizing handguns and submachineguns in the 9mm caliber. Twelve NATO countries ratified the STANAG, but the United States did not. Instead, during the late 1960s and 1970s, various agencies in the U.S.

continued to develop requirements documents, conduct surveys, and evaluate replacement weapons.

Finally, in 1974, the U.S. Air Force began a detailed evaluation of a 9mm handgun as a possible replacement for both the M1911A1 pistol and the .38 caliber revolver. Its preliminary report in 1980 concluded that the Beretta 925-1 9mm pistol was "superior to all other 9mm pistols evaluated (S&W M459, FN HP, Colt SSP, FNFA, H&K PS, Star M28, FNDA, H&K VP 70)" and to the M15 .38 revolver and M1911A1 as well. Both the Air Force and the U.S. Secret Service agreed that the Beretta pistol satisfied their requirements.

During the 1970s, too, the Army's Combat Developments Command developed a requirements document for a new handgun and hosted numerous conferences within the research and development community. Both the Army's Infantry Board and the Infantry Agency of the Combat Developments Command participated in these early studies, none of which resulted in any conclusive action.

The most significant of all the studies during the 1970s was one conducted by the Joint Service Small Arms Program Office and the Army, along with all the other services. The results of the study, published on 5 June 1980, recommended that all services "adopt a 9mm handgun to meet NATO standardization requirements and that they develop a single family of handguns and ammunition."

Accordingly, *Joint Service Operational Requirement (JSOR) for a Personal Defense Weapon (PDW)*, published on 17 June 1981, contained this statement:

*A need has been identified for a Personal Defense Weapon/Standard Service Sidearm which is no heavier than the current caliber .45 M1911A1 pistol with ammunition but which has a combination of greater firepower, accuracy, and a higher probability of hit and increased RAM than either the M1911A1 pistol or any of the numerous caliber .38 revolvers currently in use. The standard NATO sidearm cartridge, as adopted by all NATO*

*countries, and most other free world countries, with the exception of the U.S., is the 9mm cartridge. This sidearm must utilize the 9mm NATO cartridge to provide for interoperability with these countries.*

When the Army received this requirement, it submitted requests for proposals to handgun manufacturers and, at Fort Dix, New Jersey, in February 1982, tested four different weapons. The weapons failed the Army's test, and procurement plans were cancelled.

Finally, the latest tests in the effort to acquire a new handgun were held in February 1984 at three Army posts: Aberdeen Proving Ground, Maryland; Fort Dix, New Jersey; and Fort Benning, Georgia. Each manufacturer was required to submit 40 pistols — 30 for testing and 10 for training purposes. The candidate pistols were to be off-the-shelf items rather than new research and development efforts.

Specifications for the test guns included requirements for a chamber designed for the 9mm NATO round, a magazine with a capacity of at least 10 rounds, an overall length of at least 8.7 inches, a barrel no shorter than four inches, a weight of less than 2.7 pounds, and an ambidextrous safety. These criteria eliminated the M1911A1 from the competition and precluded its conversion to a 9mm caliber.

The trials in February 1984 and other considerations sealed the fate of our "old friend." Nevertheless, the controversy as to whether it or its replacement is the better weapon will undoubtedly continue as long as soldiers recall the M1911A1's reliability and service to the country. It may be dead — but it is far from buried.

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# THE FIGHTING XO AND C4S2

MAJOR STEPHEN C. LIVINGSTON

The restructuring of mechanized infantry and armor battalions under Division 86, along with the introduction of lethal, highly mobile fighting systems, leaves the role of the battalion executive officer (XO) in question. The term "fighting XO," so much in vogue today, seems to mean many things to many people.

One thing is clear, however: Because of the mobility of fighting systems such as Abrams tanks and Bradley fighting vehicles, a battalion commander needs his XO's help more than ever to effectively command his unit and control his assets. As second in command, the XO must be more than just the unit's battlefield logistics coordinator; he must be totally familiar with the tactical situation and directly involved in it.

At the same time, though, this mobile and fluid battlefield makes his job as logistical coordinator more challenging, because the logistical "battle" must be synchronized with the tactical battle. Without this synchronization, the Abrams and the Bradley can quickly outrun their logistical lifeline.

This article is an attempt to describe some methods one battalion (the 1st Battalion, 30th Infantry, 3d Infantry Division) has used in Europe to effect the intent of Division 86 doctrine and the concept of the fighting XO. In certain instances, as will be apparent, these methods are not in perfect harmony with the letter of that doctrine, nor are they in harmony with currently developed modified tables of organization and equipment (MTOE), especially in the area of communications. Nevertheless, they do work and work well.

First, what is the fighting XO's role in a battalion? He monitors the tactical battle by "eavesdropping" on the battalion command net. On the brigade's command net, he responds for the commander when the commander is unable to answer, for whatever reason. While the commander influences the central battle in his sector, the XO monitors and can influence the portion of the battle that is not in the commander's immediate focus. The XO



closely follows the battle on either flank and keeps the commander informed as needed. The XO renders any reports that may be required by the brigade, relieving the commander of that responsibility; he anticipates the needs of the commander on the basis of the tactical situation; and he requests additional combat power as it is needed.

Finally, the XO orchestrates the unit's logistical battle to ensure that it supports the tactical battle. He prompts and coaches the battalion S-4 — the logistical coordinator and executor — to see that the needs of the battalion are met. Thus, he assures that the logistical battle is synchronized with the tactical battle.

To accomplish all of this the XO must have at his disposal sufficient means by which he can influence command, control, and communications (C<sup>3</sup>) at the combat service support level (CS<sup>2</sup>). Combined, these become command, control, communications, and combat service support, or C<sup>4</sup>S<sup>2</sup>. For the XO, these are not separate terms and systems but one unified system.

A fighting XO, therefore, is a stage manager in the literal sense of the word. He strikes a balance between the combat and logistic needs of the battle, thereby allowing his commander to focus his attention on the central battle. As the "actors" are needed, the XO sends them on stage without undue prompting from the commander. He is also fully ready to assume command on a moment's notice.

What means does the fighting XO have at his disposal for C<sup>3</sup>? The command and control of the direct tactical battle is accomplished primarily through the tactical command post (TAC CP), which some more commonly, but erroneously, refer to as the jump TOC. The TAC CP is manned by the battalion commander, the air liaison officer (ALO), the battalion assistant operations sergeant, an S-2 representative, the NBC NCO, the commander's assistant operations sergeant, and a forward observer (FO). It usually consists of three or four vehicles, the commander's track, the S-3's track, the ALO's track, and, on occasion, the commander's light wheeled vehicle.

## SPLIT AND MOVE

The TAC CP can split up and move to different locations to accomplish specific missions and then rendezvous at another location. The ALO, for example, can move to a vantage point to control close air support, and the commander can move about the battlefield to influence a battle while the S-3 track remains on a good communications site to relay information. Depending on the situation, the S-3 or the antiarmor company commander can complement this crew to assist the commander. The commander's light wheeled vehicle follows the TAC to provide backup communications and to transport the battalion commander, if required.

The TAC CP is usually located well forward and moves frequently to allow the commander to influence

the battle at its central focus. Its location, of course, is entirely dependent on the battalion commander's needs and desires. The TAC CP is not capable of 24-hour continuous operation, though, because of manpower constraints. It is active at the decisive point and time during the battle. At other times the battalion S-3 or the XO controls the battle from the TOC.

Some modifications to the battalion's communications and power generation means are needed for the TAC CP to operate. The S-3's track should have three radios to operate effectively. These radios are entered into the battalion command net, the brigade command net, and the brigade operations and intelligence (O&I) net. The commander's track must be entered into the battalion and brigade command nets and the fire net (for the FO), and must also be able to monitor the brigade O&I net. The FO and the commander's operator monitor and respond to these nets. The ALO monitors the battalion command net and his own Air Force nets (UHF/VHF) through his own systems mounted in his M113. The ALO track also needs an externally bracketed 1.5- or 3-kilowatt generator on its rear deck to provide auxiliary power to the TAC. (It is not advisable to use an M577 because of its mobility problems and bulk.)

Although the TOC in this arrangement does not move as frequently as the TAC CP, it is able to move quickly, and it *can* move frequently without disruption to command and control, because it is lighter than the traditional TOC.

The TOC should be no larger than eight vehicles, the key ones being three M577s — the S-3's, the S-2's, and the FSO's. The other vehicles in the TOC are the thin-skinned vehicles that are ancillary to its mission — the battalion XO's, the S-3's, the HHC XO's, and the communications platoon's light wheeled vehicles.

The battalion XO controls the TOC, or, in his absence, the S-3. The principal personnel in the S-3 section are the S-3 Air, the chemical officer, and the operations sergeant, augmented by another NCO, preferably in the rank of staff sergeant, to assist the operations sergeant. The air liaison officer is not assigned to a shift and should not normally be in the TOC. (Shifts will not be discussed here because they tend to be somewhat dependent on the personalities of the individuals involved. It is up to the battalion XO, the S-2, the S-3, and the intelligence and operations sergeants to ensure that the members of all shifts, both the S-2's, and the S-3's, are well trained and competent.) The entire S-2 section mans the TOC unless it is necessary to send a representative with the TAC CP. When the TAC CP requires someone from the S-2 section, that person should be the battlefield information control center officer or the senior intelligence analyst.

The FSO's location is dependent upon the desires of the battalion commander, but consideration should be given to leaving him at the TOC where he can manage and plan supporting fires more effectively. He cannot fully plan and manage the supporting fires from the TAC CP. The FO with the TAC CP can call for the fires the

battalion commander needs. Wherever the FSO is, the battalion XO or S-3 should see that he is kept abreast of the tactical situation at all times and is included in planning and anticipating the needs of the direct battle.

The primary role of the people in the TOC is to monitor the direct battle over the battalion command net and to assist the commander when needed. We found the TOC configuration shown in Figure 1 the most efficient, and it generally permits the employment of the TOC in constricted terrain.

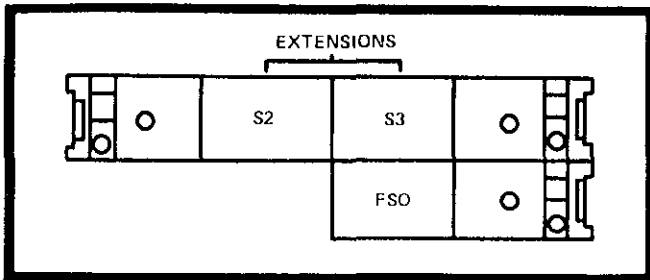


FIGURE 1. CONFIGURATION OF TOC VEHICLES (S2 AND S3 POSITIONS ARE INTERCHANGEABLE)

The use of camouflage nets and concertina wire must be weighed against the tactical situation and the terrain; they are cumbersome and time-consuming to deploy and remove. Nets should probably be used in generally static defensive operations in sparsely vegetated or deciduous areas, especially if the enemy's intelligence collection efforts are principally made up of overhead and ground based systems focused on battalion or company C<sup>3</sup> systems. Neither nets nor wire should be used during offensive and counteroffensive operations or operations in densely vegetated or coniferous areas, or when enemy intelligence collection systems are principally derived from signal intelligence. Without this encumbrance, the TOC can establish itself more quickly at a new site. Thus, security is sacrificed for speed.

The internal configuration of the TOC is shown in Figure 2. The ramps of the M577s are kept in the raised position because this allows the radio operators (instead of senior NCOs and officers) to operate the radios; it provides more rapid protection from artillery; and it provides more usable space in the extension. The battalion and brigade command nets are remoted from the S-3's M577 to the area indicated in Figure 2, and the brigade O&I net is remoted to the S-2 area. (This requires one additional AN/GRA-39, which is taken from the command group.)

Radio-telephone operators are trained to respond to routine reports and requests for information, but they automatically defer to the senior officer present — who is able to monitor the nets (via the remote hook-up) — for calls from the battalion commander, or for calls that request permission to perform any type of activity. The remote is used as an intercom between the M577 and the extension. The radio-telephone operators are supervised and assisted by the shift NCOIC who also records all radio traffic in the log.

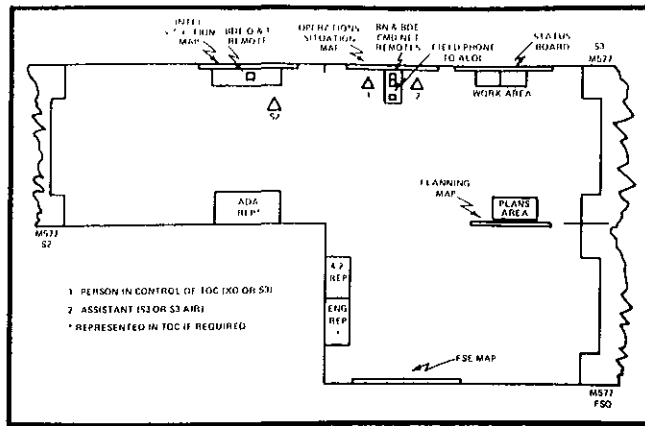


FIGURE 2. INTERNAL TOC CONFIGURATION

The configuration shown in Figure 2 allows for a good flow of information between the S-3 and the S-2. (Information flow is often lacking in TOCs, with the S-2 usually not fully aware of the current tactical situation.) It also allows the FSO to monitor both the friendly and the enemy situation closely.

## AUGMENTED

Here again, the communications permitted by the MTOE must be augmented. The S-2's and the S-3's M577s must be equipped identically so that either vehicle can perform the other's mission as well as its own. This is most crucial during movements by echelon. The TOC should be the net control station (NCS) at all times and should never pass the burden of control to the TAC CP. Either of these two M577s can displace first. The crews — "jump teams" — must be crossloaded between the two vehicles during movements by echelon, and everything works best when these "jump teams" have been pre-determined and can remain the same all the time.

With the establishment of these "inviolable" rules ("jump teams," identical communications equipment, and the understanding that control of the NCS is not to be passed to the TAC), displacing the TOC becomes a quick and efficient operation. (On an average, this battalion can totally displace the TOC and be fully operational at the new site in 45 minutes. When the "inviolable" rules are not observed, however, for whatever reason, our displacement time increases dramatically.)

It is necessary to point out here that no extraneous equipment or personnel should be at the TOC. The TOC should be kept light and highly mobile, so it can displace with only a few minutes' notice. Yukon stoves are used instead of space heaters (they take less time to cool and less storage space), the RTT is at the combat trains (to reduce the electronic signature), and, as a result, the signal operation platoon is also at the combat trains. Either a single infantry squad or the better part of a platoon, depending on the situation, should be provided to the TOC for security. Depending on the size of the security element, a portion of it can also help provide security



for the combat trains, which should be no more than 1,000 to 1,500 meters from the TOC.

The HHC XO or first sergeant is responsible for coordinating the defense of the TOC, and he and the battalion signal officer make up both the site reconnaissance and the quartering party teams. Although doctrine calls for the HHC commander to fulfill this function, because of the field trains' size composition (150 people and approximately 40 vehicles), his presence at the field trains is generally more important, especially during the TOC's initial establishment or re-establishment. He commands the field trains (which is also where most of his company is located) and coordinates its defense. He should also visit the TOC periodically to check on the company XO or first sergeant and to provide any guidance they may need on the defense and the external organization of that location.

When feasible, the antiarmor company commander can provide an alternate TOC and should visit the main TOC frequently to keep abreast of the tactical situation. He should also monitor both the battalion and brigade command nets. When the TOC has been called three times (on FM nets) and has not answered, he should respond. He should also follow up to determine the reason why the TOC did not respond. (This same procedure is also applied to communications between the TOC and the TAC CP.)

## LOGISTICS

The fighting XO, in his role as logistical coordinator, commands and controls the logistical "battle" through the battalion S-4. He communicates with the S-4 principally over a land line established between the combat trains and the TOC, but he can also use the battalion command net for that purpose. The land line between the

TOC and the combat trains is installed as soon as both sites have been established. The two should therefore never be more than 1,000 to 1,500 meters apart. (Another reason they should be relatively close is that the combat trains are central to the logistical operations just as the TOC is central to the combat operations).

The S-4 establishes, for command and control purposes, a site similar to the TOC; it is known as the administrative and logistics operations center (ALOC). It is the nerve center not only of the combat trains area but of the entire logistical operation for the battalion.

The ALOC consists of the S-1 and S-4's M577 and the RTT's M577. It is manned by the S-4, the S-1, the battalion maintenance sergeant (BMS), the S-1 and S-4 NCOICs, the RTOs, and the necessary operators for the RTT. The ALOC maintains a tactical and logistical situation map and enough charts to monitor the administrative and logistical "battle." (The RTT is located with the ALOC instead of with the TOC to reduce the TOC's electronic signature, and also to transmit the lengthy reports that come from the S-1 and the S-4.)

The ALOC is also the NCS for the battalion administrative/logistical net.

All requests for logistic support are sent through the ALOC, which then directs the necessary agency to fill them. In addition, all vehicle traffic to and from the FLOT (forward line of own troops) and the field trains moves through the combat trains so that the logistical flow can be more effectively controlled. This must be the ALOC's single "inviolable" rule, and it must be made a part of the logistical plan.

The combat trains also have at least one medical M577 aid station, a portion of the maintenance and service section of the battalion maintenance platoon in an M113, and at least one M88 recovery vehicle — all armored vehicles. As few thin-skinned vehicles as possible are in-



cluded in the combat trains, but at least one TPU and one 5-ton truck loaded with a standard mix of Class V supplies are there all the time, ready to be "pushed" forward by the S-4 as the tactical situation dictates. When these vehicles move forward to resupply a unit, replacements for them are called forward from the field trains. This greatly reduces response time.

To maintain an efficient logistic system that pushes products and services forward in response to the tactical situation, the ALOC has to be able to monitor the battalion command net, and it also has to be able to monitor the maintenance net. This increases to three the number of radios in the S-1 and S-4's M577. (One is authorized by MTOE.)

The field trains are the largest of the battalion's logistical operations. They can be either independently located or co-located with the brigade support area (BSA). The field trains consist of the battalion support platoon (less the elements that are located with the combat trains), the mess section, the maintenance platoon (less company maintenance contact teams and the necessary personnel from the maintenance and service section to provide maintenance at the combat trains), and the remaining support personnel. These elements are large enough to provide for their own defense, but it is their very size and diversity that requires the presence of the HHC commander to coordinate not only the trains' defense but also their movement when required. (Doctrine states that the support platoon leader should coordinate the field trains, but the support platoon leader is also the S-4's representative in the field trains and serves as liaison with the BSA as well. The burden of coordinating the movement and defense of the field trains requires someone's full-time attention. It is for this reason and others stated earlier that this mission is best accomplished by the HHC commander.)

## MAINTENANCE

With the centralization of maintenance at battalion level, it is necessary to establish a maintenance net that is independent of the administrative/logistical net. This prevents overcrowding that net, and it makes the administrative, logistical, and maintenance efforts more responsive. Maintenance contact teams are in direct support or under the operational control of the rifle companies and monitor the company command nets. But they are also entered into the maintenance net and can request parts, recovery, and assistance through the ALOC.

The ALOC, manned by the BMS, can forward these requests to the field trains quickly, or it can direct elements in the combat trains to respond.

The establishment of a maintenance net requires only two additional radios, one for the battalion maintenance officer (BMO) and one for the battalion maintenance technician (BMT). The BMO is not fixed to one location; he moves to the critical place at the critical time. The BMT stays in the field trains area to supervise the maintenance effort there and to maintain contact with the direct support maintenance unit.

One key to the maintenance effort for the battalion is a published and enforced schedule of evacuation criteria. A recommended schedule is as follows:

- **Company maintenance contact teams.** In the defense, evacuate a piece of equipment to the combat trains if it can't be repaired in two hours; in the offense, evacuate it if it can't be repaired in one hour.

- **Combat trains.** In the defense, evacuate equipment to the field trains if it can't be repaired in six hours; in the offense, evacuate it if it can't be repaired in two hours.

If a piece of equipment must be evacuated to the field trains from a company maintenance contact team, it is first evacuated to the combat trains, and the combat trains then evacuate it to the field trains. This returns recovery capability quickly to the company.

The fighting XO in a battalion has many difficult tasks to perform. In performing them he cannot allow himself to become divorced from either the combat or the logistical operations. He must develop the logistic "battle" to support the direct battle in a timely and responsive manner.

To help him in this effort are the S-4 and members of the battalion's special staff. The XO must anticipate the needs of his unit, both tactically and logistically, and he must see that reports are sent to higher headquarters to keep them informed of the current tactical and logistical situations. He assists his commander, anticipating his needs and relieving him of some of the more mundane and less critical tasks. The XO is, in fact, the battalion's deputy commander, and as a true "fighting XO," he must be prepared to assume command at any time, instantly and confidently.

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Major Stephen C. Livingston recently completed an assignment as executive officer of the 1st battalion, 30th Infantry, 3d Infantry Division. Previously, he served in several staff positions in the 1st Cavalry Division and the 25th Infantry Division and also served on the staff of a division support command. A 1970 ROTC graduate of Wichita State University, he is now assigned to the ROTC Detachment at Southeast Louisiana University.

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# SOVIET MECHANIZED AIRBORNE FORCES



MAJOR RICHARD N. ARMSTRONG

A swift, effective means of attacking throughout the depth of an enemy force has long been a battlefield requirement. Actions against the enemy's rear and flanks, as considered by Clausewitz in the 19th century, constitutes not an increase in force but only a more powerful application of that force. Since Clausewitz's day, battle areas have grown in size, making it even more difficult to use forces in an enemy's rear areas. At the same time, though, technology has increased the means available to a commander to strike throughout the depth of that ever-growing battlefield.

The Soviet armed forces in the mid-1930s were the first to recognize the possibility of using airborne forces for missions in an enemy's rear areas that no other force could accomplish. That early experimentation was only a part of a major effort in the development of modern Soviet military theory.

This development of an airborne capability as a new combat means was, in fact, closely linked with the Soviet

concept of *gluboki boi*, deep battle. Deep battle has become a fundamental tenet in Soviet military operational art that seeks to conduct offensive operations in depth. A central point in that theory is simultaneously neutralizing enemy defenses by various means throughout the entire depth and breaking through his tactical zone on a selected sector. This breakthrough is quickly followed by the commitment of the kinds of forces — such as tanks, motorized infantry, and airborne troops — that can rapidly achieve the prescribed deep objectives.

The combination of an offensive operation in depth, the recent developments in materiel and technology, and the lessons learned from airborne operations in World War II have resulted in a Soviet airborne concept with a range of use wide enough to fully complement the ground forces in wartime operations. By examining the implications of these factors, one can see the full potential of the threat that Soviet airborne forces represent to the conduct of a defense in depth.

Before assessing the Soviets' present capabilities, it is necessary to review their airborne experiences, and to understand the conclusions they have drawn from those experiences.

The official birthday of the Soviet airborne force was 2 August 1930. On that date in the Moscow Military District, during an exercise near Voronezh, the Soviets conducted the first operation by a parachute force dropped in the "enemy rear." Although small in numbers, this unit was given the mission of eliminating an army staff. The landing force successfully played its role and showed that such a force could be useful in modern combat. By 1938 the Soviets had six airborne brigades, and by mid-1941 were forming five airborne corps.

Despite this early lead in the creation of airborne forces, the Soviets' use of them during World War II was less spectacular than the airborne assaults of the German and Japanese armies. In fact, popular histories of the war on the Eastern front contain little or no discussion of Soviet airborne operations. Soviet airborne forces were employed, however, with limited success in a variety of missions and made a major contribution to the defense of Moscow during the winter of 1941-1942. The Soviets also experienced a disastrous attempt to coordinate the breaching of the Dnieper River line with airborne forces in September 1943. They also conducted smaller airborne and air landing operations on the Kerch peninsula, on Sakhalin Island, and in Manchuria.

Colonel General D. Sukhorukov, Commander in Chief of Airborne Forces, observed (in an article in the July 1981 issue of the Soviet *Military History Journal*) that the Soviets' World War II experiences with airborne forces revealed some major weaknesses. Since airborne forces were light infantry, for example, they carried only light weapons, and this allowed them to be easily brushed aside by more heavily armed forces.

Although these airborne forces had great strategic mobility, once on the ground they had the tactical mobility of regular infantry — two or three miles per hour on foot. Consequently, to avoid wasting the swiftness of the strategic deployment itself, and to achieve tactical surprise, airborne forces had to be dropped on or very near their objectives. As a result, the landing party's engagements usually began and developed under conditions in which the enemy had both fire superiority and greater mobility.

Another crucial aspect of past airborne operations had been logistics. Airborne operations required a relatively long lead time for planning and a tremendous allocation of forces and equipment. Once behind the enemy lines, on foot, an airborne force could conduct only a short engagement, with any success, and the engagement was strictly limited to the time of arrival of the advancing troops from the front. According to the Soviet studies, the usual length of airborne operations in World War II were between a few hours and two or three days. When the advancing troops were delayed in reaching the landing party, the airborne force usually did not achieve its objective. (Many of

these problems continue to be major considerations in planning airborne operations today, but the Soviets have been trying to overcome them.)

## TRENDS

In their combat studies, the Soviets have isolated a number of trends from the lessons they learned in World War II, and these lessons have had a significant effect on the post-war developments in the theory and practice of airborne operations. According to Colonel General Sukhorukov, the main lessons were these: Parachute forces should be equipped with more powerful weapons and combat equipment, equivalent or nearly equivalent in performance to that of the conventional ground forces; improved landing means should be developed to allow the massed use of airborne forces and parachute drops of all authorized heavy combat equipment; and the air transport should be able to complete the drop of a large airborne force with one flight by the aircraft.

The build-up of Soviet airborne forces after World War II was not a steady process, primarily because the Soviet leaders gave little consideration to the use of those forces in future wars. There were several reasons for this. First, there was no immediate advance in technology that would overcome the earlier shortcomings, particularly in the areas of larger air transports and air-droppable combat vehicles. And under Premier Nikita Krushchev, the airborne forces, like many of the conventional forces, took a back seat to the development of the strategic rocket forces and other force modernization programs.

In the early 1970s, however, the concept of employing airborne forces began to receive attention in such doctrinal writings as A.A. Sidirenko's *The Offensive*, a work that prescribed the expanding role of conventional and airborne forces in a nuclear age.

He said, "It is now possible to disrupt the enemy's organized move of reserves . . . and deprive them of the opportunity to set up a defense on advantageous positions by delivery of nuclear missile attacks and . . . by employment of airborne landings . . ." Sidirenko argued that the importance of airborne troops had increased greatly with the appearance of nuclear missile weapons because those troops could quickly exploit the results of nuclear strikes by landing in the depth of the enemy's dispositions.

More recent Soviet doctrinal writings and combat studies have developed a need for a greater conventional role for airborne forces. General S.P. Ivanov, in a study published in 1974, clearly identified a role for Soviet airborne forces other than as a follow-up to nuclear strikes. He was impressed by the Germans' use of small airborne units in the Netherlands to support the German blitzkrieg across the Low Countries in World War II. The German airborne employment had proved tremendously effective in disrupting the Dutch main forces and in easing the crossing of the Maas River and the Albert Canal by German ground forces. This operational level consideration for airborne attacks into an enemy's depth, in fact, com-

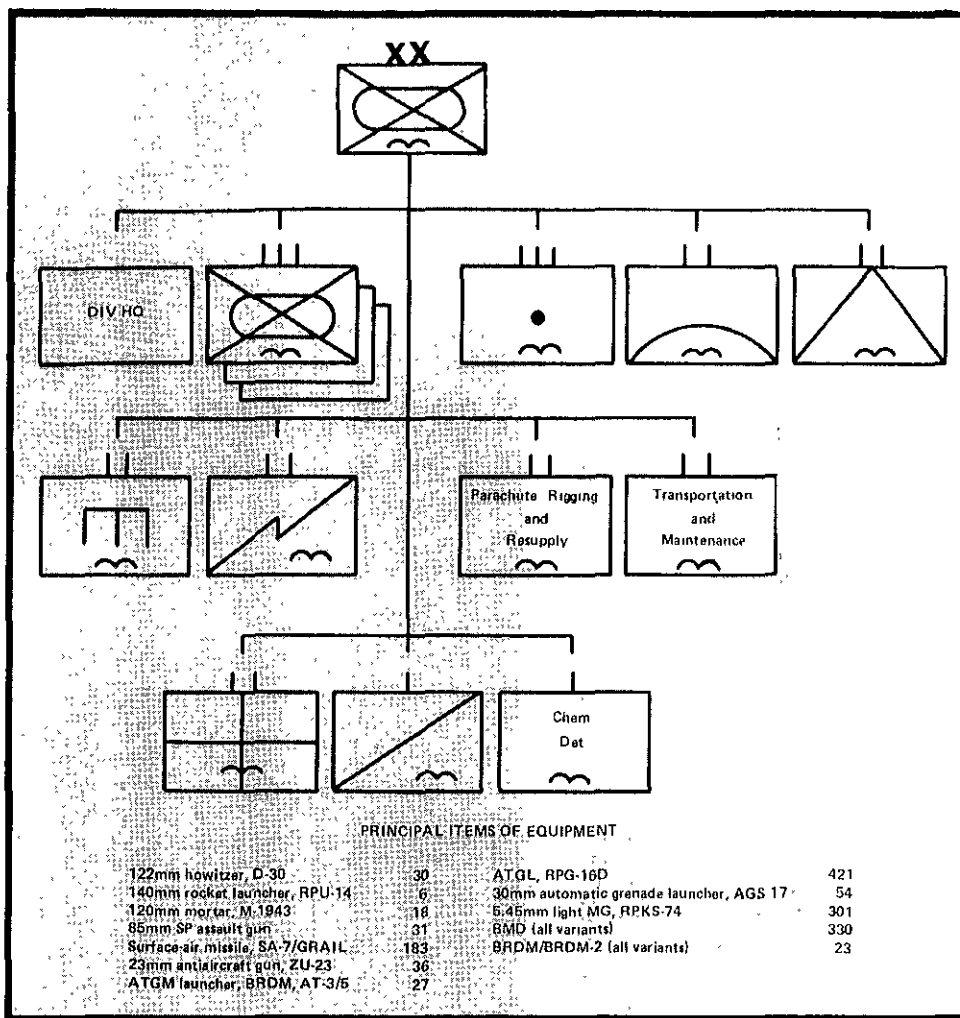


FIGURE 1 AIRBORNE DIVISION.

bined with other lessons learned from World War II, still provides the basis for the continuing effort to build up and modernize Soviet airborne forces.

The Soviets' airborne division today is smaller in personnel strength and in types of equipment than their motorized rifle division (see Figure 1). It is organized on the basic "triangular" system with three platoons to a company, three companies to a battalion, and so on. This force configuration allows operational and tactical employments by forces of regiment, battalion, or company size. Depending on the mission, these various echelons can receive reinforcing heavy combat equipment from higher units.

Recently, air assault brigades have also been deployed in the Soviet Union's western military districts and in the Groups of Soviet Forces in Eastern Europe. The new units, with a mixture of two airborne combat vehicle battalions and two parachute assault battalions provide operational level assets directly to front and army commands (see Figure 2). These brigades add strength and numbers to what is already the world's largest airborne force.

In the past few years a substantial increase in armored personnel carriers, cross-country vehicles, light tanks, and self-propelled artillery pieces has altered the traditional

perception of airborne forces. The Soviets, by arming their airborne units with air-droppable armored vehicles and heavy weapon systems, have put wings not only on their infantry but also on their modern combat vehicles, thereby creating a light mechanized airborne force. This mechanization gives them a more mobile, more maneuverable force with significantly increased firepower for operations in an enemy's rear areas to complement ground force operations.

For the Soviets, the basic factor for success is their airborne units' ability to stand and fight what they consider the primary threat to airborne operations — tanks and other armored combat vehicles. This ability to fight on relatively equal terms against armored forces requires tactical mobility and heavier weapons, and both have been provided, to a great extent, by the primary airborne combat vehicle, the *Bronevaya Mashina Destany* (BMD). The BMD can carry three crew members with four passengers. It can travel in excess of 60 kilometers per hour on highways for an estimated cruising range of 320 kilometers and can cross water at 10 kilometers per hour. In terms of firepower, it has two antitank weapons — the AT-3 (Sagger) ATGM (mounted on a launch rail) and the 73mm smoothbore gun. And the current ATGM can readily be replaced by succeeding generations of missiles.

In its fighting and command variants, the BMD is distributed on the basis of 11 to each company, 35 to each battalion, approximately 105 to each regiment, and about 330 to each airborne division.

In addition to the BMD, Soviet airborne units have other heavy weapon systems that clearly compensate for their previous lack of firepower, and this should concern those who must plan to counter a Soviet airborne threat. The antitank weapons are the ASU-57, the ASU-85 assault gun, and the 85mm SD-44 auxiliary self-propelled antitank gun. Although the ASU-57 and the SD-44 are generally considered obsolete, some airborne units are believed to have them. In the artillery regiment of an airborne division, there are 30 122mm D-30 howitzers and two 140mm RPU-14 multiple rocket launchers. The air defense battalion has three batteries of six ZU-23s with the prime movers being either UAZ 69 trucks or BMDs. In fact, the high density of crew and individual antitank weapons in all Soviet airborne units compares favorably with that of the motorized rifle divisions.

Having solved the major problems of mobility and firepower, the Soviets have turned their paratroop units into what are essentially light mechanized airborne forces with missions in enemy rear areas.

In planning to use this mechanized airborne force,

Soviet airborne doctrine distinguishes between tactical, operational, and strategic airborne landings. These various levels are determined by the number of airborne troops involved, the objective, and the level of the ground force operation they are to support. Generally, depending upon the number of troops involved, a tactical landing could deploy up to a regiment; an operational landing, a division or less; and a strategic landing, up to two divisions.

The variety of objectives that airborne forces can attack and seize includes area targets such as key terrain, road junctions, bridges, fords, and airfields. Specific targets identified for destruction could include nuclear weapon-delivery systems, command and control centers, communication centers, ammunition and nuclear storage facilities, and other key installations.

Airborne forces can perform greater roles in tactical and operational employment, as indicated by General Ivanov, by supporting advancing ground forces, breaking through a deeply echeloned defense system, crossing obstacles, cutting off the enemy's retreat routes, and preventing enemy reinforcements from joining their frontline forces.

After achieving these primary missions, mechanized airborne units have a potential secondary mission — the creation of chaos in the enemy's rear areas through raiding ac-

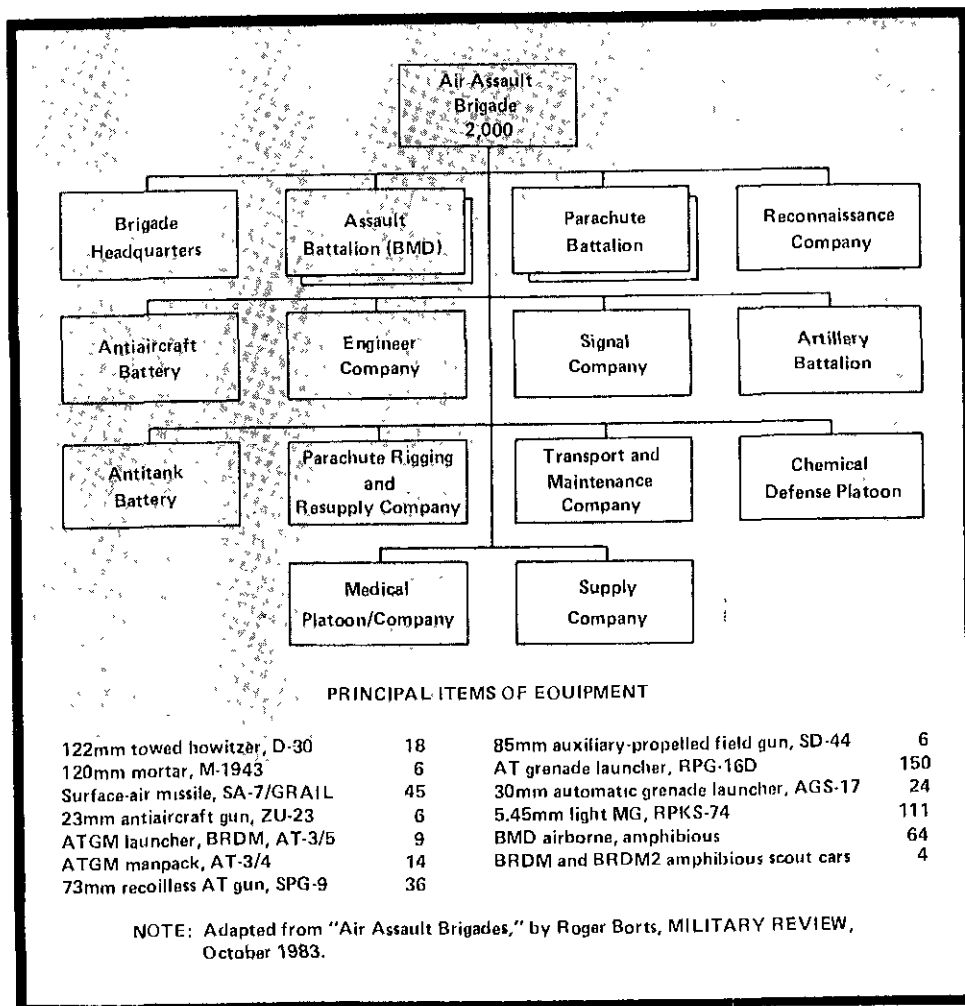


FIGURE 2. AIR ASSAULT BRIGADE

tivities and the like.

The question arises as to when, where, and in what wartime situations Soviet airborne landings might be expected. Here, again, a clear distinction must be made between strategic, operational, and tactical landings.

A strategic operation would support the military planning in a theater of military operations (TMO). An airborne operation with a strategic objective would be very difficult, however, because it would require large paratroop units to stand by as well as certain comprehensive organizational measures — a large concentration of air transport units, for instance, and a strong air force for protection. Above all, clear air superiority would have to be guaranteed for an extended period, and the safe supply of logistical materiel would have to be organized. There is an inherent risk, of course, in every airborne landing. And in a strategic landing, the Soviets would have to risk losing a fourth, possibly a third, of their total airborne force.

Taking all these factors into consideration, it would seem that a strategic airborne landing by Soviet forces in Central Europe, for instance, appears to be unrealistic if not totally unreasonable. This assessment could and should be quite different for the areas with a lower concentration of troops. The trend in Soviet airborne exercises, in fact, has been to drop units smaller than a division.

Their experience in such exercises, combined with historical lessons and their theoretical development, provides the empirical rationale for the Soviets' application of airborne forces in support of their current doctrine. This doctrine still calls for Soviet forces to conduct a rapid offensive to the operational and strategic depths of an enemy's defensive area. A contemporary means of doing this at the operational level is what is currently referred to as the Operational Maneuver Group (OMG).

The OMG, a formation of division, corps, or possibly army size, is designed to attack into an enemy's rear areas. It has the following missions: exploitation into the depth of the enemy's rear; preemption of movement of the enemy's reserves; blockage of enemy withdrawal routes; parallel pursuit and destruction of an enemy's forces; and seizure of an enemy's defensive lines.

Airborne operational landings, coordinated with a front and in some cases an army, have ominous implications for defending forces. The airborne landings would be conducted by regiments or reinforced battalions. The OMG force, in close coordination with the airborne and air assault components, would seize key bridges, terrain obstacles, river crossing sites, and airfields and would destroy nuclear weapons, command and control centers, and logistical facilities.

The assessment of tactical airborne landings is an entirely different matter. By Soviet count, of the more than 150 airborne operations conducted during World War II, approximately ten could be classified as operational or strategic, while the rest would be considered tactical or commando operations. It can be expected that future Soviet airborne landings will be of battalion or regiment strength, and that tactical airborne landings will be conducted in the defensive zone of large enemy units at a

depth of 20 or 30 kilometers, which is greater than that considered feasible for heliborne operations. Their missions will be relatively simple and uncomplicated and will not require a great expenditure of resources.

In World War II, paratroopers in large numbers were used for the most part to support ground troops. Now the Soviets believe there is a role for independent airborne operations as well — to neutralize nuclear weapons and air and naval bases, and to occupy important targets in enemy territory, separate from the ground force objectives.

Since the equipment and the force structure of the Soviet airborne forces are equivalent to those of a light mechanized force, the implications for operations in the enemy rear areas are as far-reaching as the original concept of airborne landings was in the 1930s. Being able to put a light mechanized force in an enemy's rear area revives the shock and raid capability that was the domain of cavalry forces for centuries. With mechanized airborne forces, the Soviets will be able to raid throughout the width and depth of a modern combat force's dispositions. Their mobility precludes the past countermeasure of containing an airborne contingent with a preponderance of force. Additionally, their own armor makes the paratroopers less vulnerable to artillery fire.

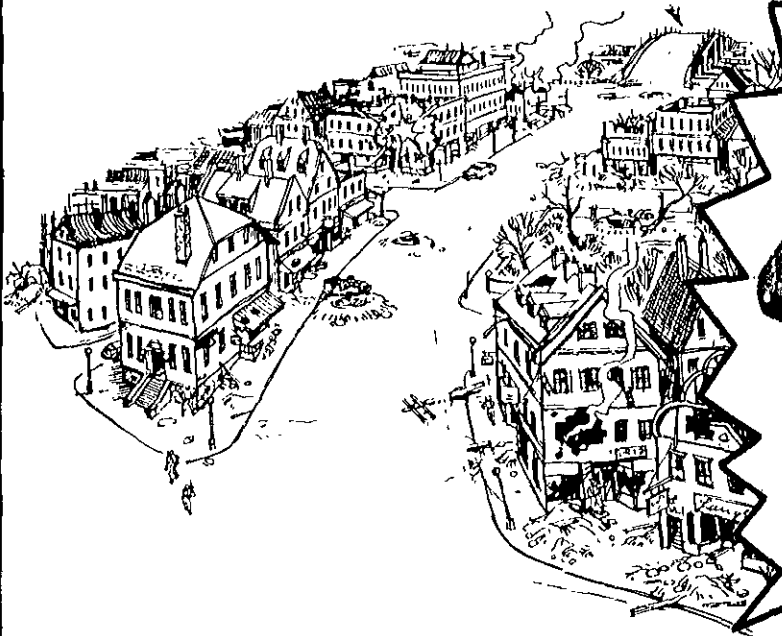
This tactical mobility of the mechanized airborne force means that paratroopers will no longer have to wait until they are relieved. If ground operations in conjunction with an airborne drop fail, as they did in Operation Market Garden (the Allied airborne operation of "A Bridge Too Far" fame), Soviet airborne units will be able to move rapidly toward the frontline troops to effect a reverse link-up. But even this sort of action can cause confusion and possibly panic for the defending frontline troops who might find themselves suddenly attacked from the rear.

The Soviets have not been able to eliminate all the serious problems in conducting their airborne operations. As evidenced by their current force structure and equipment, they have sought ways to reduce their shortcomings and to develop more uses for airborne operations on the heavily armored battlefield of the future. The serious threat of light mechanized airborne battalions or regiments in rear area operations introduces a shock tactic. Once on a line of communications or once occupying key terrain, a Soviet airborne force will not be easily brushed aside — the density of its weapons will allow it to hold its positions.

In short, the concept of a light mechanized airborne force has changed the traditional ideas about the use of paratroopers and has expanded the ways in which they can be used on the modern battlefield.



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# Defending Against Soviet Forces On Urban Terrain

LIEUTENANT COLONEL LESTER W. GRAU

Soviet military literature has recently emphasized the need for more training in military operations on urban terrain (MOUT). U.S. Army literature (FM 90-10) also provides guidance for conducting operations on the urban terrain peculiar to Western Europe. The reason for this emphasis in both armies is, of course, that if a war should break out in Western Europe between NATO and Warsaw Pact forces, fighting on urban terrain would be unavoidable.

In the January-February 1985 issue of *INFANTRY* I discussed Soviet doctrine for conducting operations in built-up areas. In this article, I offer some points a commander should consider in preparing to defend against such operations.

First, a defending commander must prepare to defeat Soviet reconnaissance elements. Those reconnaissance elements — mounted on BMPs, BRDMs, or motorcycles — will be able to call for artillery fire, pinpoint enemy defensive positions, and probe for defensive flanks and weak spots. If the defending commander can draw the reconnaissance forces well within the urban area before engaging them, he will have done much toward destroying the opposing commander's ability to employ artillery fire effectively. He will also most likely force the opposing commander to deploy his forces for a deliberate assault instead of attempting an attack from the march.

In fact, it may be advisable for the defending commander to allow the Soviet reconnaissance elements to drive through or past his concealed defensive positions to be engaged by deeper defensive positions or mobile hunter-killer teams while he waits in place to surprise the Soviet main body.

As for constructing defensive sites, FM 90-10 provides excellent guidance. If possible, the main defensive site should be placed in a ferroconcrete structure and its embrasures plugged with sandbags or covered with wire mesh. Heavy machinegun and RPG-7 fires are of limited value against ferroconcrete buildings while they will readily penetrate brick, soft stone, and wooden buildings. "Mouse holes" should be used for firing positions. (Soviet troops are trained to fire at open doors and windows and to attack and plug them during the assault.)

All defensive positions need to be mutually supporting and manned by at least two men, and soldiers cannot be hesitant about firing their weapons. In addition to firing at targets outside buildings, they should be trained to engage enemy troops inside buildings by firing through interior walls, ceilings, and floors. Unfortunately, because the M16 cartridge has limited penetrating power, most of this firing will have to be done by M60 machinegunners. (Infantry leaders should read or reread S.L.A. Marshall's *Men Against Fire*.)

Defensive positions should not be oriented solely toward an attack from the front. Multiple supporting positions should be planned, because the Soviet forces will try to hold such positions in place and take their objective from the flank or rear.

Soviet forces can be expected to employ large amounts of smoke — particularly in a deliberate attack. Defending troops therefore need to be taught to employ claymores and small arms fire through smoke cover. As in night firing, soldiers who are firing through smoke tend to fire high, so defensive positions need to be constructed to ensure grazing fire.

Selective rubble and preplanned killing zones should be used to channel and destroy attacking forces. Fou-gasse and multiple claymore mines will prove very effective for this task. (The wires on the claymore should be buried so that they will not be cut by artillery fire.) M24 off-route antitank mines should be emplaced so as to strike just above the height of tank road wheels.

Doors should be locked and blocked. Although Soviet doctrine calls for entering buildings through gaps blown in the walls, direct fire will not cut the metal reinforcing rods in concrete buildings. Furthermore, Soviet trainers do not allow troops to routinely blow gaps in scarce MOUT training facilities any more than U.S. trainers do. Therefore, Soviet soldiers train by entering open doors and windows. (A locked and blocked door could be a nasty surprise for the first soldier to encounter it!)

Evacuation routes and signals should be planned and should include the use of messengers, the local telephone system, and wire communications. Subterranean evacuation and resupply routes should be used whenever possible. At the same time, subways, sewers, utility tunnels, and drainage systems in the Soviets' advance route must be blocked and defended, because the Soviets will use them in a deliberate assault whenever they can.

Some way of fighting fires should be incorporated into defensive positions. Wet blankets should be placed around crew-served weapon positions as protection from flame.

## ARTILLERY FIRE

Plans should also be made to defend against enemy artillery. The Soviets' artillery doctrine is modified when applied to urban terrain. A large part of their artillery fire will be direct lay, and their artillery preparatory fires will be more limited to avoid creating obstacles. In defending against these fires, our commanders might use the Soviets' own experience from World War II, when they learned to use underground structures to protect their combat equipment and personnel. During the German artillery preparatory fires, for example, most Soviet soldiers would move rapidly with their weapons to basement shelters or to trench systems dug behind their buildings and well out of danger from collapsing rubble. Designated personnel and standby weapons would remain in place in specially prepared shelters. When the German

artillery fires were shifted, Soviet commanders would quickly move their troops back to their places to repulse the ground attack.

In order to add to the confusion of battle, defending forces should remove or relocate street name signs, building numbers, and traffic signs. (Although the Soviet Army has excellent maps, they are classified and Soviet squad leaders don't see or use them enough. For combat on urban terrain Soviet forces will therefore rely heavily on guide books and commercial maps of built-up areas in Western Europe.)

## FIRING POSITIONS

As for crew-served weapon positions, most of the defender's machineguns need to be employed at ground level with interlocking fields of fire at grazing height. Alternate firing positions, aiming stakes, and limit-of-sector stakes are essential. Most firing positions should be located inside basements and on first floors, with "mouse holes" for firing. (FM 90-10 provides excellent guidance on constructing firing positions.) Some machineguns may need to be employed on rooftops, along with Redeyes or Stingers, in an antiaircraft role. Depending on the tactical situation, the commander may put a light machinegun in the upper stories of a multi-storied building as a roving gun to engage targets of opportunity.

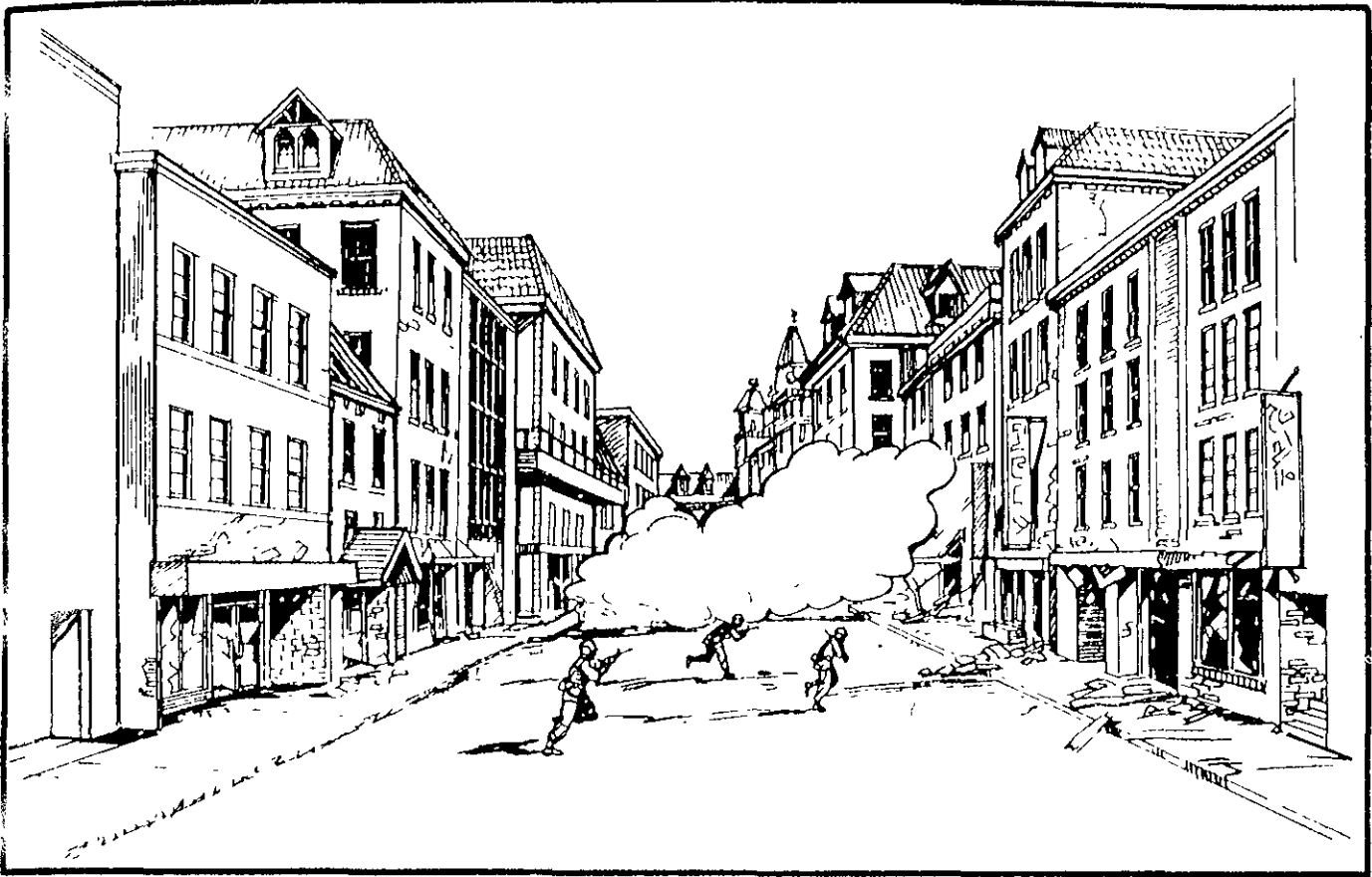
Antitank weapons normally have to be employed outside buildings since the backblast of the TOW, the Dragon, and the LAW usually prohibits their employment inside. Since most antitank shots will be at short range, and since both the TOW and the Dragon have a minimum effective range in which the gunner must acquire the missile, the LAW will be the primary antitank weapon in urban fighting. And as we learned in Vietnam, squad volley fire is the safest and most effective way to use the LAW.

TOWs and Dragons should be employed on the flanks of the urban area to help counter an expected envelopment action. The use of the TOW against the Mi-24 armored helicopter gunship should also be considered. It is well to keep in mind that when the Soviets attempt an attack directly from the march, they are vulnerable to interdiction on their flanks. Antiarmor hunter-killer teams, moving on routes parallel to the attack, should enjoy considerable success if they are employed in a logical and controlled manner.

TOWs and Dragons can be positioned along boulevards for long range shots against tanks, but the bulk of the antitank fighting will be done with other tanks, LAWs, mines, and M24 off-route antitank launch mines. (French MK-1 horizontal action antitank mines are also effective if they are available.)

Unit S-4s should try to obtain 90mm recoilless rifles and 3.5-inch rocket launchers for MOUT fighting from within buildings (as the Marines learned in Hue). Antitank weapons employed from above against the top armor of tanks should also be quite effective.





Antitank positions should not be disclosed prematurely. Tanks and artillery pieces in the direct fire and assault roles will figure prominently in the Soviet organization for combat, and Soviet reconnaissance forces will continually strive to discover antitank positions. These positions must therefore be moved once they have been discovered.

## RESERVES

A mobile reserve will be needed for defensive operations, particularly if Soviet forces should launch an air-mobile assault or a flank or rear attack. The reserve can also be used in its classic role of blocking penetrations, but it should not be prepositioned so close to the main defensive positions as to interfere with the defense's flexibility and mobility.

The defending commander should employ long range artillery fire against Soviet forces approaching the urban area to create confusion in the march column, slow its progress, and force the attacker to deploy his forces. And within the city, artillery and, particularly, mortar fire can be used to keep armored forces buttoned up and to separate the dismounted riflemen from their armor.

The movement of armored vehicles in a city can be a problem. The vehicles are often restricted to movement along streets — where they are more exposed to enemy fire. Accordingly, consideration should be given to moving tanks and tracks through buildings when possible. Factories, warehouses, and many large stores can be

driven through, but the buildings should be checked first, of course. (Tracked vehicles should not drive through buildings with basements as this tends to convert a tank into a pillbox.)

As mentioned, Soviet reconnaissance elements will try to determine the location of crew-served weapon positions, particularly those with antiarmor weapons, and will try to neutralize and destroy them early in the attack. Accordingly, the defending soldiers must observe fire discipline, employing only the crew-served weapons that are necessary for eliminating select targets and then shifting those weapons to alternate sites.

Command, control, and communication problems will plague Soviet forces in any battle on urban terrain. Intelligence efforts and combat patrols should therefore concentrate on compounding these problems by neutralizing command posts.

During the hasty attack, Soviet command vehicles can be identified by their multiple or special antennas, their lack of anti-aircraft armament, and the proximity of the chemical reconnaissance, artillery, and air defense artillery command vehicles. During preparations for the deliberate attack, Soviet battalion command posts will normally be located within 200 meters of the front units in places from which direct observation is possible (in multi-storied buildings, for example).

Defending troops need to be taught to don chemical masks in case the Soviet forces decide to employ chemicals. The Soviets could use a mixture of HE and chemical munitions for tactical surprise, or an agent such as HCN to rapidly neutralize a strongpoint. HCN can be delivered

effectively by Soviet BM-21 multiple rocket launcher units and, in an advance to contact, can be available within an hour after the reconnaissance elements make their initial contact. The lethality and rapid dispersal of HCN makes it ideal for use on urban defensive positions.

Soviet forces will probably employ flamethrowers as well, up to two per squad in their assault group. The Soviet LPO-50 flamethrower has a maximum effective range of 50 meters and a strong recoil that makes the prone firing position the only accurate one to use with it. Defensive planning should therefore identify potential flamethrower positions and ensure that effective fire can be brought to bear on them. The Soviets also use crew-served TPO-50 flamethrowers (with a maximum effective range of 150 meters) and flamethrower tanks.

The defenders can use flame warfare, too, through fougasse, the US M9E1-7 flamethrower, and the M202A2 flash. (The backblast area of the M202A2 prohibits its use inside most buildings, however.)

Finally, breakout and linkup planning should begin as soon as the defensive plan has been issued, because the Soviets will try to envelop the urban defending forces, sealing the city off to prevent their withdrawal or reinforcement.

To effect an envelopment, the Soviets may use ground, airborne, or airmobile forces. Tanks, TOWs, and Dragons can be used for flanking shots against ground forces that are trying to bypass the urban area. If it is available, a tank-heavy force can be prepositioned at the logical juncture beyond the urban area.

The commander should be aware that Soviet airborne forces, once they have been dropped, are mechanized — BDMs and ASU 85s will accompany any airdrop to the rear of the urban area. Airmobile forces, however, normally consist of regular motorized rifle soldiers without their APCs.

The logistical demands of urban warfare can be heavy for both sides; large quantities of cartridges, antitank and antipersonnel grenades, artillery projectiles, smoke rounds, signaling equipment, shaped charges, bangalore torpedoes, antitank and antipersonnel mines, grapples, assault ladders, and barrier materials will have to be

pushed forward. Food and water resupply and medical evacuation efforts will prove difficult.

The Soviet logistical system lacks the manpower to support this kind of battle and will be hard pressed to maintain its forward supply dumps. An immediate counterattack following heavy fighting may be easier because of the Soviets' resupply problems.

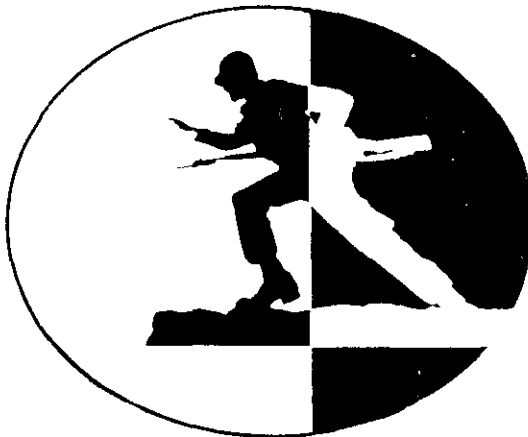
Soviet attacks have been stopped by a strategically placed field kitchen. (Although Soviet troops are prohibited from consuming enemy food or drink, including alcohol, without medical clearance, experience has shown that discipline may break down after the capture of food and drink.) Indeed, the German army of World War II sometimes deliberately gave ground to the Soviets in selected sectors of the front. In those sectors, the Germans would "abandon" field kitchens with prepared meals and register preplanned artillery strikes on them. Such tactics often proved quite effective.

The defense of urban terrain will be one of the most difficult combat tasks an infantry unit will be called on to undertake on the contemporary battlefield. The unit's success or failure ultimately will be decided at the small unit level. House-to-house fighting will be a squad and team leaders' battle, and this is the level at which leadership initiative is weakest in the Soviet forces. If enough confusion can be created, Soviet attacks may falter or fail completely when the battle reaches the squad level.

Well thought out plans and battle drills, coupled with realistic MOUT training, will go far toward improving our ability to win in this environment.



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# Infantry

## In Action



## D-DAY: Forty Years Plus One

Major General Albert H. Smith, Jr.  
United States Army (Retired)

*EDITOR'S NOTE: The following article is a selective condensation of the two-hour Operation OVERLORD lecture that General Smith has presented to officer advanced course classes at various service schools. It focuses on the*

*16th Infantry Regiment's assault on Omaha Beach. The lecture itself also covers the plans and preparations the higher Allied headquarters made for the operation, plus the fighting on D-Day in the other assault landing areas*

My subject matter may be forty years old, but I believe its lessons are applicable to today's Army, because small unit actions have not changed that much. Individuals, squads, platoons, and companies can emulate their World War II counterparts in training to overcome enemy defenses. The qualities of small unit leadership are still current. Initiative and good old American ingenuity remain strong weapons to use against a determined enemy. And while the overall D-Day story was told in this magazine in its May-June 1984 issue, I believe the story needs to be told again, particularly from a more personal viewpoint and with stress on the magnificent role U.S. infantrymen played in getting ashore in France on 6 June 1944 and in staying there.

I was a 25-year old captain on that day, serving as executive officer of the 1st Battalion, 16th Infantry Regiment, 1st Infantry Division. The battalion commander was Major Ed Driscoll.

The 16th Infantry, commanded by Colonel George Taylor, was one of the division's two assault regiments scheduled to land at daybreak on 6 June 1944 on Omaha Beach. The other regiment was the 116th Infantry from the 29th Infantry Division, attached to the 1st Division for the assault.

In June 1944 the 16th Infantry was a combat hardened outfit. It had trained in England and Scotland between August and October 1942 and had been sent to the Mediterranean area, where it had taken part in two invasions

and three campaigns — first in northwest Africa and then in Sicily.

The division had returned to England in December 1943. There, during the next five months, it took part in a tough training program and in a series of invasion rehearsals to sharpen its fighting spirit. By early June, the division was ready for what lay ahead.

The 29th Infantry Division was also well trained. It had been in England since the fall of 1942 and had been subjected to a broad range of hard training, including several realistic landing exercises. But it had not been in combat, and its soldiers had not heard a shot fired in anger.

Across the English Channel, meanwhile, in the German defensive scheme of things, so-called static divisions (with no motor transportation) were charged with the coastal defense mission and with defending the fortified ports. Many of the soldiers assigned to these static divisions were Russians, Poles, and other former enemy soldiers who had chosen to serve with the German Army rather than go to prisoner-of-war camps. These were mixed with older German soldiers, many of whom had survived bitter fighting on the Russian front.

The mobile German infantry units and the panzer divisions were another story. Their ranks were filled with battle-wise veterans and fanatic storm troopers.

Those of us who had faced the Afrika Corps in Tunisia were well aware of the individual German soldier's fighting ability and tenacity. As we were to discover again in

Normandy, the German soldiers were still full of fight and had most of the tools they needed to give us a hard time.

Fortunately for us, there was not the same unity of command on the German side as there was on ours. Our commanders knew much of what the Germans were doing in Normandy — our intelligence people, having broken the German Ultra code system, could read communications that passed between the various levels of command. But the German intelligence organization by this time was in shambles, and German commanders were essentially in the dark concerning our plans, dispositions, and capabilities.

On 7 May 1944 the 1st Division was sent to “concentration camps” in the south of England near the harbors from which its units would embark for Normandy. These were referred to as “holding areas” by our higher headquarters, but they were really austere tent camps surrounded by barbed wire and guarded by theater-level military police units.

On 3 June the situation changed for the better when the 16th Infantry’s battalions embarked on three transports — the *Samuel Chase*, the *Henrico*, and the *Empire Anvil*. My battalion, together with the regimental headquarters, was aboard the *Chase*, an exceptionally clean ship manned by U.S. Coast Guard personnel and filled with the kind of stateside food we had missed so much during the preceding months.

For the first time we were briefed on our exact assault roles. An excellent sand table had been prepared to show all the details of the Normandy coast, and most of the German defensive positions were pinpointed for us.

The plan for Operation *Neptune* — the amphibious assault phase of Operation *Overlord*, which was the overall plan for the invasion of northwest Europe — called for U.S. forces to land on Utah and Omaha Beaches and for British and Canadian units to land on Gold, Juno, and Sword Beaches. The U.S. 82nd and 101st Airborne Divisions were to drop inland from Utah Beach while the British 6th Airborne Division was to drop south of Sword Beach (see Map 1).

Simply put, OVERLORD strategy was to gain a toehold

in Normandy; then to build up forces and supplies in the lodgement area; and, finally, to break out of the lodgement area. The early capture of Cherbourg and the establishment of artificial harbors were essential to the operation.

The 16th Infantry Regiment’s plan called for its 2d and 3d Battalions to land on the Easy Red and Fox Green sectors of Omaha Beach respectively, and for its 1st Battalion to follow the 2d Battalion onto Easy Red. Colonel Taylor, our regimental commander, had the following to say about our assault: “The first six hours will be the toughest. That is the period during which we will be the weakest. But we’ve got to open the door. Somebody has to lead the way — and if we fail, well, then the troops behind us will do the job. They’ll just keep throwing stuff onto the beaches until something breaks.”

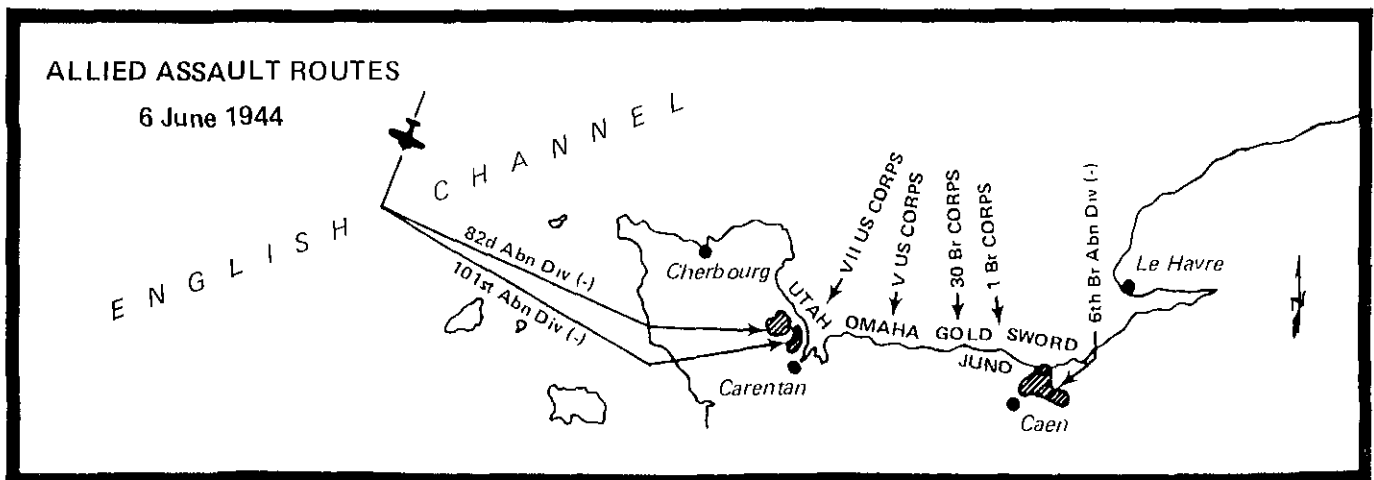
Omaha Beach was a three-mile, crescent-shaped sand beach backed by high and commanding bluffs that ranged in height from 100 to 170 feet. Rocky cliffs sealed off both ends of the beach. Landing at low tide, a soldier would have several hundred yards of rather firm footing before encountering a narrow strip of difficult soft sand leading to a seawall or shingle (loose stone) embankment. On the other side of the embankment he would find a beach road, beyond which was a swampy beach flat, several hundred yards deep, that reached to the base of the bluffs.

The beach exits were essentially deep north-south draws. There were also smaller north-south ravines that could provide some defilade protection from most of the German weapons.

The German defenses were expected to take full advantage of the bluffs, especially on the east and west sides of the draws. German flanking fire was possible against landing craft and the assault troops from emplacements that could not be seen directly from the north.

We knew that daylight on D-Day would last from 0600 to about 2200, some 16 hours of good visibility. We also knew that all of the landing areas might be affected by an easterly tide.

For the assault phase of the operation, each of our assault rifle companies had been organized into five assault



MAP 1

sections instead of its normal three rifle platoons and one weapons platoon. Each section — 1 officer and 29 soldiers — included rifle teams and wire-cutting, bazooka, flame-thrower, automatic rifle, 60mm mortar, and demolition teams. (During the landing and the subsequent attacks on German pillboxes and gun emplacements, this organization proved quite effective. The one planning mistake was the inclusion of the 70-pound flamethrowers, which never got across the beach. In fact, most of the men carrying them sank when the teams hit the water.)

On board the *Chase*, weapons were cleaned and the assault sections repeatedly inspected and briefed. Everything possible was done to ensure success.

Stormy weather on the 4th and 5th caused a 24-hour delay. We prepared to sail on 4 June but were soon back at anchor. Then, during the night of 5-6 June conditions improved, if only marginally, and we sailed for France. The sea was classed as moderate, with waves ranging from four to eight feet. Winds from the northwest were gusty, often up to 20 miles per hour.

Our sea passage from Weymouth harbor to the transport area 12 miles off Omaha Beach was routine and relatively smooth. After the evening meal and brief final meetings, most of us took to our bunks. Colonel Taylor stopped by our cabin — I was bunking with Ed Driscoll — to wish us good luck. No “pep talk” was needed.

I don't remember how long we slept, but Ed and I were awake at 0200 according to plan. After last-minute checks with the company commanders, we went to the mess at 0300 for breakfast. The menu was complete, and we could have anything we wanted. (I ate steak and eggs, with pancakes on the side.) The mess stewards were particularly kind and solicitous that morning, and I guess they were glad they would remain aboard.

Our troops were rail-loaded into LCVPs (landing craft, vehicle and personnel). Crossing a narrow gangplank into a waiting LCVP was a far better procedure than climbing down cargo nets. For the record, we hit the English Channel at about 0430.

An LCVP is certainly no sleek motor launch. I think of it as an oversized metal shoe box. The World War II LCVP was 45 feet long and 14 feet wide and held 30 infantrymen and their assault equipment. It had a steel ramp instead of a sharp bow. In our LCVP, we had 36 headquarters personnel.

With a speed of somewhere around five knots through four- to eight-foot waves, it would take our LCVP almost three hours to go from our transport area to the beach. This included the time needed for the various assembly maneuvers. An ordinary seaman was in charge of this shoe box. A dozen of these low-ranking skippers answered to a Navy lieutenant, who was responsible for maintaining us on the correct ship-to-shore course.

Our LCVP had not been in the water 10 minutes before we were soaking wet and cold. Most of us were also seasick. These miserable conditions persisted for the next 12 miles.

Finally, Omaha Beach and its bluffs were visible to

those of us in the front of the craft. There was some distant noise, but we were not aware of any heavy gunfire. Some smoke from the beach flat grasses reduced our visibility off Easy Red beach. At that time everything seemed to be going according to plan.

When we were about 500 yards offshore, though, I began to realize we were in trouble. Because of the numerous beach obstacles, we now had five LCVPs going in abreast and very close together. The intervals between the craft could be measured in inches rather than in the tens of yards our amphibious doctrine called for.

As its bottom scraped a sand bar, our LCVP shuddered to a stop. Almost simultaneously German machinegun fire hit the steel ramp. I yelled to the seaman not to drop the ramp and, for once, the Navy obeyed the Army. Then, as the German machinegunners swept down the line of landing craft, I called for the ramp to be dropped. All but two of us raced safely into waist-deep water; the last two men were hit before they could leave the craft.

The beach bottom was firm under our feet, but the going was tough because of the surf and the heavy loads we were carrying. Our wet woolen clothing didn't help our mobility, either.

The closer we got to the beach line the more certain I became that the landing was a disaster. Dead and wounded from the first waves were everywhere. There was little or no firing from our troops. On the other hand, German machineguns, mortars, and artillery pieces were laying down some of the heaviest fire I had ever experienced.

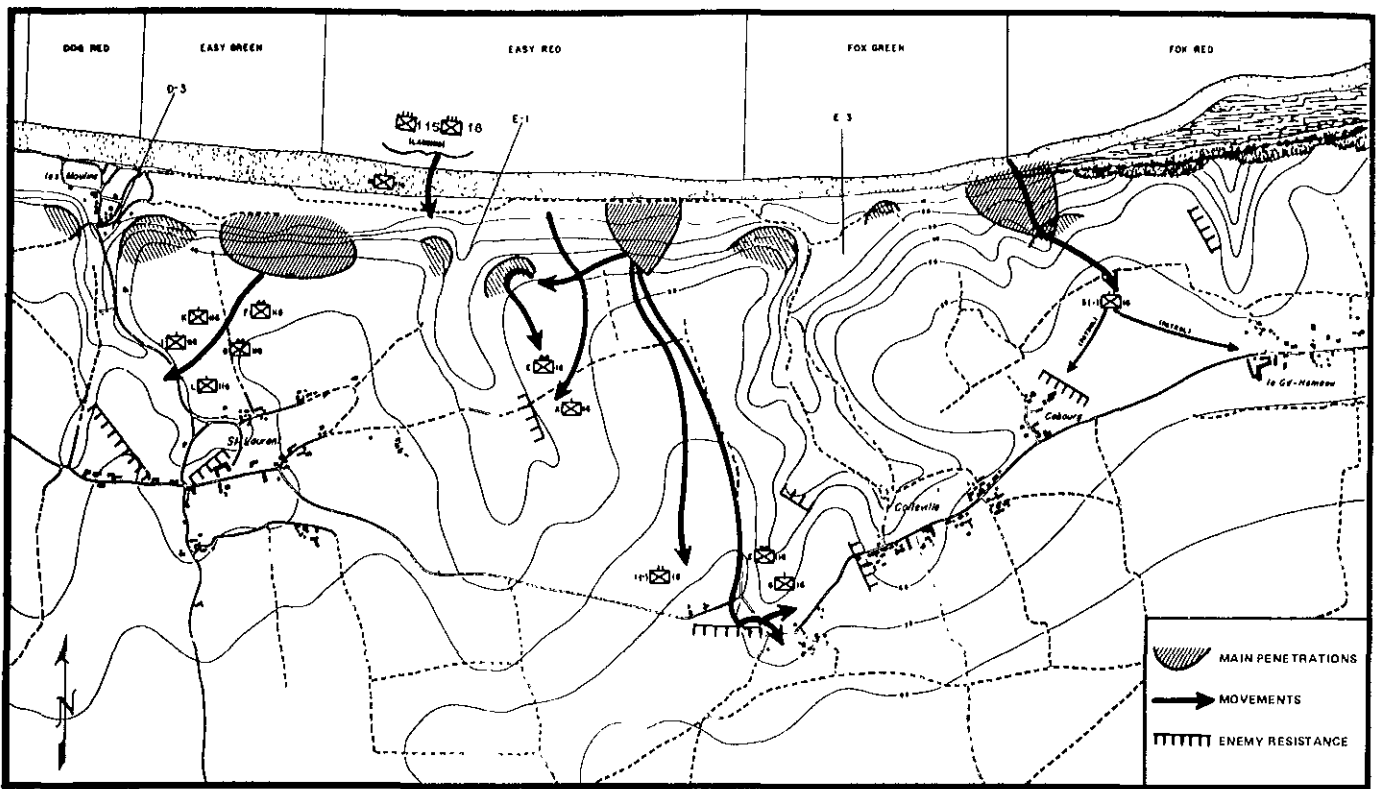
Unknown to us, regiments of the 352d Infantry Division (part of Rommel's reserve) were conducting anti-invasion maneuvers in the Omaha Beach area on 5-6 June. Their presence more than doubled the number of defenders our amphibious assault had to overcome.

Somehow, Captain Hank Hangsterfer, the headquarters company commander, and I were able to get our half of the battalion headquarters across the soft sand and into the defilade afforded by the shingle embankment. I don't recall any casualties. Then, seeing some movement off the beach to our east, we began to move in that direction.

## TEACHINGS

Enroute we ran into Brigadier General Willard Wyman, our assistant division commander, who had landed minutes earlier and was trying to organize the scattered forces. We had been taught at the Infantry School that a combination of fire and movement was the best way to advance against a dug-in enemy. But at this hour and in this situation — it was about 0800 — when General Wyman asked whether we were advancing by fire and movement I answered, “Yes, Sir. They're firing and we're moving.”

At 0950, General Wyman reported that there were too many vehicles on the beach and asked for more combat troops to be sent in immediately. Shortly thereafter, the 115th Infantry was sent in to reinforce the 116th, and the



MAP 2

18th Infantry was landed near one of the major exits and was ordered to pass through and take over the missions of the 16th.

As we now know, in the 2d Battalion's sector, the assault sections of Companies E and F were badly scattered and intermingled with men from Company E, 116th Infantry, who had landed several thousand yards east of their designated beach. The initial casualties in these units were 50 percent or more. The lead echelon of the 16th Infantry's headquarters was wiped out, and the regimental executive officer and S-4 were among those killed on the beach that day (see Map 2).

Only two 2d Battalion units remained relatively intact as they crossed the beach and headed toward the slopes leading to Colleville. The 1st Section of Company E, led by Second Lieutenant John Spalding, blew a gap in the wire above the shingle, made its way past a stone beach-house, and then was held up by minefields at the base of the bluffs. It had lost only three men up to this point.

Landing at 0700, Company G, commanded by Captain Joe Dawson, crossed the beach and reached the embankment in good order. The company's machineguns, set up behind the rocks, found no targets until our LCVPs drew enemy fire. Then, as Company G's supporting weapons built up a base of fire, a few men from each assault section blew gaps in the extensive barbed wire obstacles beyond the shingle.

When Company G's advance elements reached the bluffs, they met Lieutenant Spalding's section. Dawson and Spalding agreed that Spalding's section would operate on Company G's right. Both units now began sending men

through the minefields. The path for Company G's soldiers led over the dead bodies of two soldiers from the first wave who had tried to get through the minefields.

Bothered more by the mines than by the German fire, Dawson and one of his sergeants went on ahead to scout out a small draw. Halfway up the slope an enemy machinegun forced the two to take cover. Dawson sent the sergeant back to bring up the company while he crawled toward the German position. Circling to his left, he got within 30 feet of the gun position before the Germans spotted him and tried to swing the gun around in his direction. But Dawson had time to throw several fragmentation grenades, which eliminated the crew. This opened the way up the draw for his company and for many other units of the division.

Meanwhile, Spalding's section was beginning to work its way up the bluffs, helped by covering fire from Company G. But in working its way past a German machinegun position, the section lost three more men. Eventually, the gun was captured, and the lone soldier in the position, who turned out to be Polish, told Spalding that 16 Germans were in some trenches behind the position. When Spalding and his men reached those trenches, though, the German soldiers were gone. Spalding turned west along the crest of the bluff, losing contact with Company G as that unit headed south.

Moving through the hedgerowed fields and wooded areas, Spalding's section came onto the rear of the German strongpoint guarding the large draw that led to the beach; it was marked E-1 on his map. Spalding's attack caught the defenders by surprise, and in two hours of confused fighting Spalding's men managed to neutralize the

strongpoint and take 21 prisoners in the process without losing a man.

By noon, Captain Dawson's Company G, now reinforced by Spalding's section and other 2d Battalion elements, had seized most of Colleville. That rapid, one-mile-deep penetration of the German defenses was the key to our ultimate D-Day success at Omaha Beach.

In the 3d Battalion's area, Company L landed on Fox Red instead of Fox Green at 0700, some 30 minutes behind schedule. (It was the only one of the division's eight rifle companies in the assault wave that would be ready to operate as a unit after crossing the beach.) The landing craft touched down just short of several rows of underwater obstacles, and the soldiers started wading ashore, crossing 200 yards of tidal flat under heavy German fire. This brought the company into the comparative safety of a vertical cliff, where the company's remaining leaders quickly reorganized the assault sections.

One of the company's assault sections never made it to shore because its landing craft had capsized in the heavy seas shortly after leaving the transport that had brought it to France. Other losses had reduced the company's strength to 123, but it began to push inland from the beach around the west end of the cliff. The company commander was hit and seriously wounded and Lieutenant Bob Cutler, the executive officer, assumed command.

The company's 2d Assault Section, led by Lieutenant Jimmie Monteith, was sent to push up a small draw and knock out pillboxes in a German strongpoint. The 3d Section advanced on Monteith's right, while the 5th Section followed. The 1st Section passed around the right flank and made contact with elements of the 116th Infantry. Together, these latter units assaulted another German strongpoint that had been delaying the advance inland.

The other three assault sections and the company head-

quarters pushed forward as planned. Light machineguns were used to cover the advance, and Lieutenant Monteith enlisted the support of two tanks. At the head of the draw, the 2d Section took up a hasty defensive position and covered the advance of the 5th Section and the company headquarters. Two open emplacements had been silenced by rifle and automatic rifle fire during the advance up the draw. The 3d Section came on line with the 2d, and the company set up a perimeter defense on the high ground.

When Captain Kim Richmond of Company I reached Fox Green beach at 0800, he found himself the senior commander present. The battalion commander and his headquarters elements had been landed far to the west and could not rejoin their troops until much later in the day.

Richmond began to reorganize the troops he could find on the beach and started them forward to join forces with Company L on the high ground, which they did shortly after 0900.

One young infantryman, a Private First Class Milander, contributed mightily without firing a shot. After Company L had fought its way off the beaches, Milander led a three-man reconnaissance patrol southwest to the fortified village of Cabourg. The threesome failed to return because, as we later learned, a platoon of German defenders quickly surrounded them. During the night, however, Milander somehow talked the Germans into surrendering and took them prisoner. Next morning, our troops who were holding the town of Colleville cheered three weary GIs bringing in 52 of Hitler's finest. They were also happy that Cabourg had fallen without a fight or another casualty.

At about 1300 a German force of about one platoon of soldiers supported by light mortars and machineguns attacked the left flank and rear of the 3rd Battalion's perimeter. Lieutenant Monteith was killed while exposing



Under the cliffs — Fox Red — Omaha Beach — 6 June 1944.

himself to direct fire against the German force. (He was posthumously awarded the Medal of Honor for his actions that day.)

The German attack was beaten off, and shortly afterward, Captain Richmond sent a strong patrol to Hameau. Then he followed with the remainder of his force, which totaled 104 men — 70 from Company L and the others from Companies I, K, and M. German sniper and machinegun fire harassed the advance but did not slow its progress. The 100-man battalion secured Hameau — and the left flank of the Division Beachhead — by 1600 and successfully defended it through the night.

In our area, meanwhile, we could see that our troops were advancing across the beach flat and up the slopes. Near the top of the bluffs on a small, flat, grassy knoll alongside a dirt road, I enjoyed the most pleasant five-minute break of my military career. And this is where I established our first command post that D-Day morning. I had the remnants of Company A under my control — only two of its assault sections were still operational — and I was using them both as CP and as flank security. I did not know where Ed Driscoll was, or even whether he was still alive. As it turned out, he was with the lead elements of Company C, closely following the 2d Battalion's advance toward Colleville. He also had taken Company B under his control.

Experience and instinct warned me of the threat posed by the German forces in St. Laurent. In the past, the Germans had always counterattacked after losing key terrain. An attack from the west now would hit our advancing forces in the flank and rear and would seriously jeopardize our still somewhat precarious position.

Accordingly, I ordered the acting commander of Company A to attack west toward St. Laurent with what was left of his company. If he encountered the enemy in strength, he was to go over to the defensive and be prepared to block any German counterattack that might come from the direction of St. Laurent.

After an advance of 600 to 800 yards, he did run into strong German fortifications that he could not overcome. He was forced to go on the defensive.

About this time a telephone line reached me from regimental headquarters, which was located at the base of the bluffs. When Colonel Taylor asked about our situation, and what he could do to help, I told him we could use tanks, and the sooner, the better. He promised to do everything possible because he, too, expected an early counter-attack.

From that point on, although I can recall some important events, my feel for their exact timing is gone.

Following the establishment of our first CP and the advance by Company A toward St. Laurent, we tested some German defenses south of the hedgerow just across the dirt road that ran by our location. Several rifle teams tried to advance across the hedgerow but received heavy small arms fire from three directions. Somewhat later, a helmet that was raised above the vegetation drew immediate sniper fire. It was not difficult for me to conclude that the

Germans were in some strength just to the south — in fact, right next door.

In the late afternoon, therefore, I was happy to see Lieutenant Colonel Joe Sisson and his 3d Battalion, 18th Infantry approach our location. It was great to know that reinforcements were at hand. I passed along what little I knew about the friendly and enemy dispositions.

Colonel Sisson deployed his two lead companies from east to west along our dirt road; the men fixed their bayonets, and they then charged south toward the hedgerow from which the German fire had been coming. That bayonet charge was made sometime around 1700, to the best of my recollection, and while the German fire was heavy at first it soon faded as the attacking companies moved farther south to other hedgerows and fields.

As darkness approached, we were all numb. It had been a long two days, with only a few hours of sleep the previous night. Maybe numb isn't the word — I felt like a zombie.

Curled up against a hedgerow, a lieutenant and I shared the warmth of his raincoat. Our clothes were still damp and the temperature had dropped into the 50s. But we knew the Allies had it made — that the German defenses had been breached. The loss of good buddies and the horrors of the day made sleep almost impossible. But to have survived was good fortune beyond belief.

## EPILOGUE

By mid-June our 1st Division's advance had reached Caumont, some 23 miles inland from Omaha Beach.

A week later, the total number of Allied troops ashore was more than 600,000, and the number of vehicles that had been landed was almost 100,000. By then, two key requirements of the OVERLORD strategy had been fulfilled: we held a strong lodgement area in Normandy, and our build up was almost complete. All that remained was to penetrate the rest of the German defenses and to break out. That phase of the war started on 25 July and, by the end of August, the Allied forces were beyond Paris and well on their way to the German border.

For the Allied forces, the dash across France was the most exciting period of World War II in Europe. But I hope we shall always remember that our victory in Europe was made possible by those Allied soldiers who fought so hard and strenuously on and behind the Normandy beaches on 6 June 1944. That was the beginning of the end for Nazi Germany.



Major General Albert H. Smith, Jr., was commissioned a second lieutenant of Infantry in 1940 and participated in eight campaigns with the 1st Infantry Division in the European Theater in World War II. In addition to the D-Day invasion of Normandy, this service included the invasions of North Africa and Sicily. He served with the 1st Division again in Vietnam, as assistant division commander and as acting division commander.



# TRAINING NOTES



## MOUT and the Inter-Active Video Disc

STAFF ANTHONY dePASS, AUSTRALIAN ARMY

The growing urbanization of areas in which the U.S. Army is likely to operate in the future emphasizes the importance of realistic training in military operations on urban terrain (MOUT). Recent events in Grenada, Lebanon, El Salvador, and Nicaragua also point to the need for our soldiers and leaders to be well-trained to fight an urban battle.

For many years, students attending the Infantry Officer Basic Course and the Advanced Noncommissioned Officer Course at the Infantry School have had their leadership and tactical abilities tested during MOUT training. This training, with the aid of the Inter-Active Video Disc (IAVD) system, can now be taken one step further.

The MOUT IAVD introduces the student to the tactical considerations that are unique to urban terrain before he actually conducts training on a MOUT site. (It is not in any way intended to replace either classroom instruction or "hands-on" training.) The advantages of this system are substantial, including savings in training time and resources, not to mention savings in precious training dollars.

The IAVD system consists of a computer, a video disc player, and two television monitors. The software used with it is a computer program

and a video disc. The MOUT disc, which contains thousands of views of the selected urban area, allows the student to "see the battlefield" through the use of surrogate travel over the area.

In effect, the student gets a panoramic view of a town or village as if he were in a helicopter flying at various altitudes. Using a control box with a video game "joy stick" to control the direction and speed of his movement, he can hover at locations of his choice to get more in-depth views. The com-

puter allows a student to travel at will through an area as he uses the control box to select the video disc views he wants displayed.

He can travel through his sector looking at it from inside and out, leaving no stone unturned. He can get an on-the-ground view up every street from every direction, as well as views of each building's exterior construction. He can enter buildings at random and move from floor to floor or room to room. He can examine every closet, nook, and cranny within a building.



Instructor explains how to use the IAVD.

At the same time he can observe the terrain around the buildings from inside them by looking out the windows, once again, with the same perspective as if he were actually in those buildings.

The current defensive scenario used with the MOUT IAVD takes place in western Europe. This scenario puts the student in the northern half of a fictional German village called Bonnlund where he is to defend against an enemy attack on that village from the north.

So that he can develop a logical course of action and refine it into a final defensive plan, the student is given 12 training objectives to accomplish after he completes his ground and aerial reconnaissance. These objectives all relate to what he, as a platoon leader, would normally consider when developing a course of action and formulating a tentative plan for a platoon defense of an urban area:

- Identify key terrain.
- Select locations for observation posts.
- Select positions for M60 machine-guns.
- Select positions for Dragons.
- Assign squad sectors.

• Identify buildings that require fortification.

- Identify coordination requirements with adjacent units.
- Develop an obstacle plan.
- Select appropriate locations for a squad-sized antiarmor ambush.
- Develop a communications plan.
- Prepare a platoon sector sketch.
- Check target reference points and direct fire assignments.

At the start of the computer program, a series of operation instructions is used to guide the student through the program. Once he is confident of his ability to operate the control box, he proceeds with the tasks of conducting his reconnaissance and planning his platoon defense. He is allowed two hours to complete these tasks.

Then, having developed a tentative plan, the student arrives at the "testing section" of the IAVD. In this section, he must respond to both doctrinal and tactical questions on the 12 training objectives that he was given at the start of the program. As he proceeds through the questions, the student responds by pressing the appropriate button on his control box to indicate the answer he has selected.

The computer, through a display on one of the two monitors, tells him whether he is right or wrong. If his response is incorrect, the student is provided with the correct or best answer to the question. At the completion of this section the student is given a percentage score on his overall solution.

The development of a platoon defensive plan for a MOUT situation is only one use of the IAVD system. This technology can be used at other levels of command and for other phases of combat operations. Mounted land navigation, for example, can be easily adapted to the IAVD.

The Training and Doctrine Command is now evaluating this technology with a view to providing the IAVD system to the Army's major units. Although the IAVD does not replace on-the-ground practical exercises, it does help prepare leaders better to participate in those exercises.

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Staff Anthony dePass, Australian Army, is the Australian Army Exchange Noncommissioned Officer at the U.S. Army Infantry School and the School's principal instructor in platoon level military operations on urban terrain. He will return home soon to serve as an instructor with the Australian Infantry School.

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# ITV Combat Qualification Course

**CAPTAIN JAMES W. TOMPKINS, JR.**  
**LIEUTENANT HARRY E. MORNSTON**

The 21 improved TOW vehicles (ITVs) in a mechanized infantry battalion represent an extremely potent antiarmor force and one that requires a dynamic training program.

In an effort to increase the combat readiness of its assigned ITV sections,

the Combat Support Company, 2d Battalion (Mechanized), 34th Infantry, Fort Stewart, Georgia, devised and conducted a section qualification course. The objectives were to develop a program that would challenge and measure the abilities of all section per-

sonnel to exercise the full combat capabilities of the vehicle and to use all available training devices for realism and economy.

The course was conducted in two phases — Gunnery and Section Qualification — using training guidelines

from the ITV Transition Trainers Course and ST 23-34-1, "Interim TOW Training Plan," dated March 1981.

The gunnery phase was conducted using Multiple Integrated Laser Engagement System (MILES) equipment instead of the M70 trainer, because MILES would allow the qualification to be more realistic in terms of range and targets. (The company's methodology was prompted by its experience at the National Training Center and by identified shortfalls of the M70 trainer as stated in the Interim TOW Training Plan.) The standard 10-round qualification and 10-round communication were used. The qualification consisted of MILES-equipped armored vehicles moving laterally to the gunner's front at distances in excess of 2,300 meters; the verification consisted of the same armored targets at a variety of speeds and presentations (frontal, oblique, and evasive). By using MILES, the unit achieved higher scores with fewer equipment failures and better gunner interest.

The second phase of the qualification course also relied on MILES equipment to evaluate gunnery and squad and section skills. In this phase, the unit used MILES-equipped armored vehicles and also automatic tank target systems (ATTSs) with MILES M113 kits attached. The moving vehicles measured tracking ability, and the ATTSs permitted multiple target presentations, which evaluated target acquisition, target selection, and section fire control.

The use of the MILES-equipped ATTS saved on personnel and equipment (both fuel and associated Class IX parts). And it allowed the presentation of threats as specified in Additional Task 11, TOW Section Combat Qualification Course, and in ST 23-34-1.

It was relatively simple to adapt the MILES M113 kit to the ATTS. One light sensor belt was attached to the plywood silhouette with the MILES control box and target-kill indicator wired in circuit and placed on top of the ATTS mechanism. The MILES kill-indicator light was wired to a

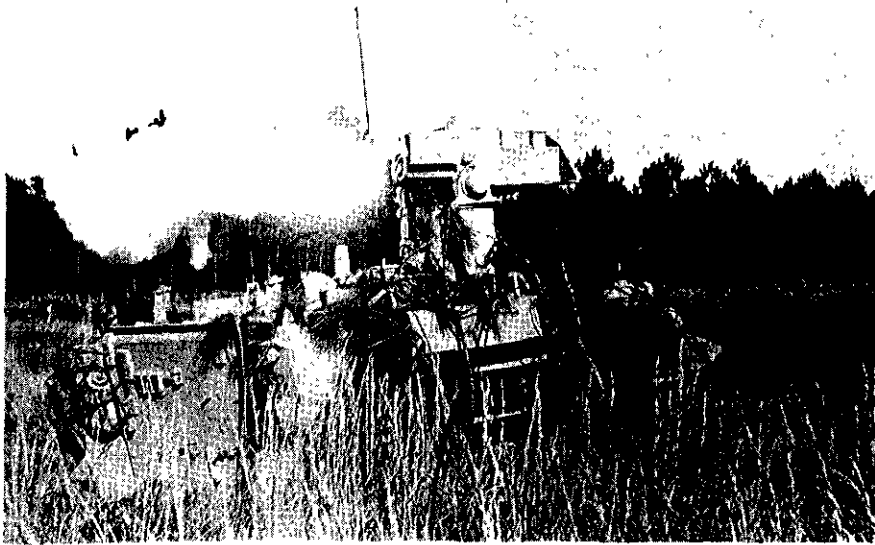
EVALUATION TASK LIST		
ITV Section Combat Qualification Course		
<u>Tasks Performed in Assembly Area</u>		
• Evaluate mission.	3-I-1-1	ARTEP 71-2
• Form tentative plan.	3-I-1-2	ARTEP 71-2
• Plan maneuver control measures.	3-I-1-4	ARTEP 71-2
• Plan direct fires.	3-I-1-5	ARTEP 71-2
• Plan fire support.	3-I-1-6	ARTEP 71-2
• Issue OPORD.	3-I-1-8	ARTEP 71-2
• Load vehicle per combat load plan.	Unit SOP	
• Conduct before-operations PMCS.	TM 9-2350-259-10	
• Conduct a system self test.	071-316-2502	FM 7 11 H
• Enter radio net.	113-571-1003	FM 7 11 H
<u>Tasks Performed Enroute to First Engagement Area</u>		
• Move.	3-III-16-1	ARTEP 71-2
• Navigate from one position on the ground to another.	071-329-1006	FM 7 11 H
<u>Tasks Performed at Initial Engagement Area</u>		
• Engage an armor threat.	Add. Task 10-1	ST-23-34-1
• Engage multiple armor threats.	Add. Task 10-2	ST-23-34-1
• Engage an armor threat array.	Add. Task 11-1	ST-23-34-1
• Put on and wear protective clothing.	092-503-1002	FM 7 11 H
• Issue NBC warning and transmit reports.		
<u>Tasks Performed Enroute to Second Engagement Area</u>		
• Move.	3-III-16-1	ARTEP 71-2
• Move in traveling overwatch.		
• Move in bounding overwatch.		
• Initiate unmasking procedures.	Battalion SOP	
• Provide overwatch.	3-III-16-1	ARTEP 71-2
• Take action on contact.	3-III-16-1	ARTEP 71-2
• Collect and report information.	071-331-0803	FM 7 11 H, Bn SOP
• Navigate from one position on the ground to another point.	071-329-1006	FM 7 11 H
<u>Tasks Performed at Final Engagement Area</u>		
• Engage a multiple armor threat.	Add. Task 10-2	ST-23-24-1
• Engage an armor threat array.	Add. Task 11-2	ST-23-34-1
• Engage an armor threat array.	Add. Task 11-5	ST-23-34-1
• Engage an armor threat array.	Add. Task 11-6	ST-23-34-1
• Collect and report information.	071-331-0803	FM 7 11 H, Bn SOP

24-volt wet cell battery and fastened to the rail of the ATTS. The target controller was positioned so he could observe the kill-indicator lights and lower and reset targets as kills were registered. The system had few failures, and it was well received by the ITV sections.

The accompanying chart details the tasks that were performed and evaluated during the qualification course. The training sites included a

wooded assembly area, two engagement areas, and a tactical road march route along secondary roads and wooded areas. Crew drills, verification of load plans, and preventive maintenance checks and services were integral parts of the exercise, and these allowed for the evaluation of skills not directly related to either tactics or gunnery.

In each engagement area, both moving armored vehicles and the



ITV with MILES equipment fires at target down range.

MILES-equipped ATTS were used as targets. Artificial illumination was required during night engagements because of the inability to collimate the MILES day sight tracker with the thermal night sight. (It is interesting to note that several gunners acquired targets by viewing blackout markers through the day sight and then scored kills with illumination.) The thermal night sight also contributed to intelligence gathering by presenting targets that could not be engaged in a particular section's sector. (The decision to report this activity rather than engage was also a good measure of a squad's preparation and its use of range cards.) The sections were also encour-

aged to use the night sight during daylight to scan heavily wooded areas before bounding within their sectors.

An after action review was held after the platoon had completed the course. The discussion group included a cross section of all crew members plus section leaders, the platoon sergeant, and the platoon leader. Although their assessment was that the training was good, they suggested some improvements such as adding more evaluated crew drills, "dirtying the battlefield," and increasing the number of ATTSs used to simulate more movement of threat formations.

This first attempt at establishing a section combat qualification course is

a start toward filling the need for specific training guidelines for the TOW system. It uses existing training simulation devices (with some modification for the MILES-equipped ATTS), and it overcomes some of the deficiencies associated with gunner qualification based on the M70 trainer. The program is flexible and cost effective. It can be adapted to the level of training of the participating unit and modified to accommodate available training areas.

The results of the ITV combat qualification course at Fort Stewart have been gratifying. The course has enabled the ITV sections to achieve increased combat readiness. More important, it has helped the unit identify shortcomings in all areas that would not have been found with the standard gunnery exercises. By identifying these shortcomings, the unit has been able to tailor its training program to further improve its readiness.

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**Captain James W. Tompkins, Jr.**, a 1977 graduate of the Citadel, recently completed an assignment as commander of the Combat Support Company, 2d Battalion, 34th Infantry at Fort Stewart. He has served as a weapons platoon leader and an executive officer, and has commanded a training company and a brigade headquarters company. He is now attending the Foreign Area Officer Course.

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**Lieutenant Harry E. Mornston**, a 1980 graduate of the United States Military Academy, is a company commander in the 2d Battalion, 34th Infantry. He is a graduate of the ITV Trainer Course and the Airborne, Air Assault, and Ranger courses. He also served for 14 months as an antitank platoon leader.

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## Extended FTX for RC Units

CAPTAIN TONY N. WINGO

All Reserve Component (RC) units today perform their full-time training duty during a 15-day annual training period. RC combat units normally use the first week of this annual training to conduct a 4-day field training exercise

(FTX) in which they concentrate on mission essential training. Following a weekend break, the units return to the field for a 3-day FTX and their Army Training and Evaluation Program (ARTEP).

Our RC units could derive many more training benefits from these FTXs, however, if they would combine them into one 10-day exercise. This extended time in the field would allow them to create a far more realis-

tic training environment, and this in turn would result in a higher degree of combat readiness for the units. It would also allow RC commanders to fully implement the Battalion Training Management System (BTMS) for the first time.

The number of actual training hours for each unit would increase dramatically. Training managers could then set more realistic training goals, and they would not be limited — as they now are — to one level of training such as squad or platoon. Battalion and brigade commanders could conduct high-level collective training such as movements to contact and attack or defend operations. In fact, a 10-day exercise could end with a full-blown battalion or brigade exercise written and later evaluated by an external unit. Since RC units are historically more productive during the second week of their annual training periods, intensive tactical training during that week would be more effective.

In this extended FTX, RC units would come closer to training as they would fight, because the combat environment it created would provide many training benefits for individual RC soldiers. These soldiers would become more accustomed to the physical and mental demands of extended field operations, and they would gain a far better appreciation for the importance of personal hygiene. They would have to learn, too, to get enough sleep during lulls if they expected to continue in action as effective members of their teams. At the same time, they would become more proficient in their individual MOSs. All in all, this kind of intensive training would definitely improve the soldiers' chances of surviving on a modern battlefield.

Not only would these continuous operations improve the tactical side of combat readiness, they would also im-

prove the logistical support side. The combat service support would be greatly improved overall, because the 10-day field training exercise would force soldiers to perform their *logistical and maintenance functions* as they would have to in combat. In today's annual training periods, when vehicles and equipment become inoperative, all too often they are simply replaced with equipment that is not being used. In an extended exercise such as this, it is more likely that all the equipment would be in use.

It has become evident that the terms *rearm, refuel, and repair forward* are not properly understood within the Reserve Components. An extended field training exercise would demand

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**Extended time in the field would allow units to create a far more realistic training environment and thus to attain a higher degree of combat readiness.**

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proper staff planning and coordination for support, and it would require all support personnel to become intimately familiar with the tactical scheme of maneuver and the support requirements of the fighting units. This would further improve a unit's combat readiness and its future survivability on the battlefield.

If a 10-day field training exercise were adopted for RC combat units it would undoubtedly bring with it some problems. For example, some of the non-combat units training at the same annual training sites would not participate in any kind of field training exercise. Some soldiers in the combat units, therefore, would ask to be assigned to a non-combat unit, hoping thereby to spend the entire annual

training period in the cantonment area.

This exercise would also eliminate the weekend break, which has traditionally been a time for such recreational events as softball, golf, and tennis tournaments. Losing this personal time and having to undergo unpleasant field training conditions, too, might lead some soldiers to get out of their combat units. And enlisting in RC combat units might not appear as attractive to some soldiers as it has in the past. (Let's face facts — many members of the Reserve Components have to take vacation time from their civilian jobs to attend annual training, and a number of them seem to feel that the annual training period should be at least partly vacation time.)

Still, despite the possible problems, an extended field exercise would be far more productive in terms of training than any exercises RC combat units now conduct. This concept would test the ability of RC combat units to sustain themselves in the field under extended combat conditions, and it would encourage those units to train as they would fight, both tactically and logistically.

The RC units might suffer some initial losses in personnel or some decline in recruiting incentives, but the kind of soldiers the Reserve Components need are those who really want to be well trained and are willing to put in the necessary time. The individual soldiers, as well as their units, would benefit; this, in turn, would improve everyone's chances of surviving on a future battlefield.



Captain Tony N. Wingo is assigned to the 1st Battalion, 167th Infantry (Mechanized), Alabama Army National Guard. He is a graduate of the University of Alabama and has trained with the 5th Infantry Division at the National Training Center.



# ENLISTED CAREER NOTES



## OFFICIAL PHOTOGRAPHS

One of the first things a promotion or NCOES selection board member sees when he starts reviewing a record is the NCO's official photograph. This does two things: It helps to emphasize to the board member that the file he is reviewing represents a real soldier — his appearance, awards and decorations, and length of service.

Last year, promotion boards started using the "hard copy" photograph, and in it errors and ill preparation are even more apparent than they were in the microfiche photo.

Getting a good photograph taken requires sound preparation. AR 670-1, Wear and Appearance of Army Uniforms and Insignia, and AR 640-30, Photographs for Military Personnel Files, contain the details.

The proper uniform, according to AR 640-30, is the Army green uniform with basic branch insignia, all permanently authorized ribbons, badges, and tabs correctly displayed. The shoulder sleeve insignia (crests) are not the only authorized deviations from this rule. Only low quarter shoes are authorized.

The initial photograph for an NCO's file must be taken within 60 days of his promotion to SSG and every fifth year thereafter (during his birth month). This is the maximum time between photographs — there is no minimum. An NCO should submit a new photograph whenever it is to his advantage to do so — when he has lost weight, been promoted, gotten a new or better fitting uniform, or received another award or decoration.

Some of the most common problem areas on official photographs are:

- Uniform wrinkled or ill-fitting. (Trouser creases need special attention.)
- Moustaches too long or wide.

(Three out of four fall into this category.)

- Ribbons or badges improperly placed or missing (marksmanship badges, in particular).
- Incorrect number of length-of-service slashes.
- Infantry cord and blue discs.
- Incorrect trouser and sleeve length.
- Edges of soles of low quarters scuffed, scarred, or not shined.

Worse yet, too often the NCO's photo is outdated or missing entirely.

Getting an appointment for a photograph sometimes presents a problem, so it should be done early enough to allow for a retake if it becomes necessary.

When an NCO gets his photograph back, he should take a good, long, critical look at it and ask himself whether the soldier in it looks like a professional who cares about his career. If his answer is "yes," he should get a second opinion, preferably from his next senior NCO. If the answer is "no," he should correct the problems and have another photograph taken.

Because the photograph carries a lot of weight with the board, and because competition for promotion and NCOES selection gets tougher each year, it is worth the trouble to see that the photo is right.

## USASMA CLASSES

Students who are scheduled to attend U.S. Army Sergeant Major Academy (USASMA) Class 26, July 1985 to January 1986, have now received their tentative follow-on assignments. Pinpoint assignments for the gaining installations will be made around October.

Students scheduled to attend Class

27, January to July 1986, who have not already done so should forward their updated DA Forms 2A and 2-1 (Personnel Qualification Record, Parts I and II), including a DA Form 2635 (Enlisted Preference Statement). This information is necessary for the proper completion of USASMA worksheets and assignment consideration for projecting the students' next assignments after they graduate.

These documents should be sent to Commander, MILPERCEN, ATTN: DAPC-EPK-1, USASMA Manager, 2461 Eisenhower Avenue, Alexandria, VA 22331-0413. The points of contact for inquiries regarding USASMA classes are MSG Bent and Mrs. Alexander, AUTOVON 221-9166/9425/8056.

## LETTERS TO PROMOTION BOARDS

Enlisted soldiers who are being considered for promotion or school selection may write letters directly to the board's president, if necessary to correct errors, update files, or supply missing information.

A soldier's complete promotion file consists of:

- The performance (P) fiche from his official Military Personnel File (OMPF).
- DA Forms 2A and 2-1, Personnel Qualification Record.
- His Personnel Data Sheet, which the Enlisted Records and Evaluation Center produces for the board.
- His latest photograph.

Since the boards use these items in making selections for promotion and schools, it is to a soldier's advantage to make sure his file is complete and free of errors.

Items submitted with letters are considered part of the board proceed-

ings and will not be used to update the soldier's OMPF.

Letters to the board president should be written in military letter format, following the procedures in AR 340-15. They should be brief and factual and should not contain information that is already on the OMPF.

Letters may not be used to express grievances or boasts or to justify past misconduct. Letters from third parties, or letters that contain derogatory information about other parties, will not be accepted.

Soldiers should have their letters reviewed by someone who is familiar with military correspondence procedures and who can check for errors in grammar and spelling. A well-written letter can benefit a soldier, but a poorly-written one can hurt him.

Letters should be mailed in time to arrive before the cutoff date, which is normally ten days before the date on which the board convenes.

## EMBASSY AND DIPLOMATIC POSTS

The Army is looking for volunteers in the ranks of SGT through SFC/PSG to serve in the Defense Attache System at embassies and diplomatic posts throughout the world. Soldiers who have excellent certifiable foreign language skills or who have passing Defense Language Aptitude Battery (DLAB) scores are especially needed.

Training for these attache assignments may range from four to 18 months, depending on the length of any language training that may be needed.

Details of this program are contained in AR 611-60, and local Military Personnel Offices have additional information.

## ANCOC GRADUATES

NCOs who were selected for promotion to SFC/PSG or selected to attend the Advanced NCO Course from the Fiscal Year 1986 list and who have completed either the resident or non-resident course, are asked to forward

their diplomas and/or DA Form 1056 to HQ, MILPERCEN, ATTN: DAPC-EPK-1, SFC Calanni, so their official files can be updated.

## SECRET CLEARANCE FOR ANCOC

Because of certain curriculum changes, soldiers who have been selected to attend the Advanced NCO Course should immediately begin the paperwork necessary for them to obtain Secret clearances. Although a clearance is not mandatory, any student who does not have at least an interim Secret clearance will miss certain classes.

## NEW WARRANT OFFICER TRAINING SYSTEM

Warrant officer candidates must now complete a "triple check" evaluation under the new Warrant Officer Training System (WOTS) before being appointed and assigned to their first units.

WOTS, which was implemented 1 October 1984, replaces the Warrant Officer Education System, which had no standard selection or training structure.

Under the old system, candidates were either approved by a selection board or granted direct appointments. Direct appointees could attend a short warrant officer orientation course and go straight to their first unit assignments without having any functional training in their new MOSs.

The "triple check" entry-level process under WOTS requires that a warrant officer:

- Be approved by a centralized board drawn from MILPERCEN, the Army Reserve Personnel Center, and State Adjutants General.

- Complete the Warrant Officer Entry Course, which is conducted at Fort Sill, Oklahoma; Fort Rucker, Alabama; and Aberdeen Proving Ground, Maryland. (The WOEC lasts almost seven weeks and is taught in a high stress environment that provides

standardized training in leadership, ethics, communicative arts, military history, structure of the Army, land navigation, support functions, and other common military subjects required by all warrant officer MOSs.)

- Receive technical certification by the TRADOC MOS proponent. (This is accomplished through diagnostic examinations and a resident technical certification course.)

Newly appointed warrant officers are expected to perform highly specialized technical leadership and middle management functions. Their schooling is therefore directed primarily toward in-depth occupational training instead of the broad multifunctional training given to commissioned officers.

After 5 to 11 years of warrant officer service, every warrant officer must now attend a Warrant Officer Advanced Course. Beyond the twelfth year of service, a select group of senior warrant officers are chosen by a Department of the Army selection board to attend the MOS-immaterial Warrant Officer Senior Course. This course focuses on preparing selected warrant officers for policy and planning duties on high-level staffs or comparable positions on other staffs.

Soldiers interested in applying for warrant officer appointments should read AR 135-100 (Appointment of Commissioned and Warrant Officers) and DA Circular 601-84-4 (WO Procurement Program, FY 85). This quarterly circular gives the latest essential information for warrant officer candidates.



# OFFICERS CAREER NOTES



## SPECIAL FORCES VOLUNTEERS

Effective 1 April 1985, MILPERCEN resumed assigning a limited number of lieutenants to four Special Forces Groups of the 1st Special Operations Command (SOCOM).

Requests for assignment will be processed on a case by case basis until about September 1986. At that time the Special Operations Warrant Officer Program will be capable of providing the required support for SOCOM, and lieutenants will no longer be required.

Breaks in stabilization will be approved for officers who are designated for SOCOM assignments if they are stationed in CONUS but not if they are stationed overseas.

To be eligible to volunteer for Special Forces training and duty an officer must meet the following requirements:

- Must be a combat arms or a combat service arms officer.
- Must be a first lieutenant as of his projected report date into SOCOM and for a period of 12 months thereafter (this does not include the five-month qualification course).
- Must have 18 months of experience in his basic branch serving with a TOE unit.
- Must meet the requirements as defined in AR 614-162 (if not already ASI 5G qualified).
- Must have the endorsement of the command to which he is currently assigned.

Officers designated for Special Operations training and assignment will be sent to the JFK Special Warfare Center at Fort Bragg for five months to attend the Special Operations Detachment Officer Qualification Course. Upon successful completion of the qualification course these officers will be assigned to one of the four

Special Forces Groups.

Interested officers should consult with their battalion adjutants and submit their requests in accordance with the provisions of AR 614-162.

## NEW DA FORM 483

A new officer preference statement (DA Form 483) has now replaced the old form. The difference is that a computer can read the new form and make the data on it immediately available to assignment managers through terminals on their desks.

The information an officer enters on the form, which also becomes part of his official master file, includes his preferred functional area, his preference for duty overseas or in the continental United States, any duty or location priority, three duty preferences, and several tour location choices.

There is also a comment sheet so that an officer can express career desires that are not included in the automated part of the form.

Officers should submit the automated preference statement:

- About 12 months before completing an overseas tour.
- About 12 months after reporting to a CONUS station.
- Within 60 days after starting a class at a CONUS service school or a civilian installation or entering the training with industry program.
- Whenever his personal preferences change.

Officers are cautioned to follow the directions on the form carefully and to return the form *unfolded* in an envelope 9 by 12 inches or larger. (The computer cannot process folded forms.)

The information on the form becomes part of the new automated officer distribution and assignment system. The date of an officer's latest

preference statement appears on his Officer Record Brief.

The new forms are available from servicing Military Personnel Offices. The old form should not be used.

The completed form should be sent directly to MILPERCEN using one of the addresses listed on it.

## OER SUPPORT FORM

AR 623-105 now requires that raters and rated officers have a face-to-face discussion of the rated officer's duties, responsibilities, and performance objectives. The discussion must take place during the first 30 days of a rating period.

The OER Support Form (DA Form 67-8-1) is also being changed to include a record of this face-to-face discussion. Both the rated officer and the rater will have to initial the form to verify the date of the discussion.

The revised form will also include more space for the officer's performance objectives and significant contributions.

Instructions for using the new form will be in Issue Number 4 of the Officer Ranks Personnel Update, and the new OER support forms should be available beginning in May.

## CAS<sup>1</sup>

CAS<sup>1</sup> is the Combined Arms and Services Staff School. It is open to young officers with between six and ten years of commissioned service. Many of the young officers who are eligible to attend do not fully understand the course or what it is intended to accomplish.

In brief, CAS<sup>1</sup> takes young officers and teaches them to function better in staff positions with the Army in the



field. The course is offered in two phases:

Phase I — the non-resident phase — is open to all graduates of officer advanced courses. It consists of 14 self-paced modules which take about 136 hours to complete.

As a student completes each lesson, he takes the test and sends the answer sheet to the Extension Training Management Division at Fort Leavenworth for grading. When he has completed all 14 lessons, the student receives an open-book comprehensive exam. After he passes this exam, he is then qualified for Phase II, the resident portion of the course, which is held at Fort Leavenworth.

All Phase I qualified OPMD-managed officers in year groups 1977 and beyond will be considered to attend Phase II, which takes nine weeks.

After in-processing, which includes a weigh-in, an English diagnostic test, and the Army Physical Readiness Test, each student is assigned to a 12-person staff group. Each group works with a senior field grade officer, normally a lieutenant colonel who is a former battalion commander. This group stays together throughout the nine-week course.

The students work through 34 problem-solving lessons. These lessons are grouped into seven exercises and threaded together by a common scenario. The general scenario focuses on a fictional mechanized infantry division stationed somewhere in Kansas.

The students begin at division headquarters where they participate in an accelerated eight-day training exercise. This exercise familiarizes them with problem solving, time management, and basic staff techniques. They write military and nonmilitary letters, DFs, messages, fact sheets, memoranda, and a staff study. They also practice quantitative skills such as statistics, linear programming, decision trees, PERT diagrams, regression analysis, and calculator and computer operations. During this training, each student also prepares and presents a complete information briefing.

When this training exercise is fin-

ished, the scenario continues as the officers are assigned to a notional battalion within the division. Here the students conduct a state-of-training analysis, prepare short-range and long-range training programs, resource the long-range plan in terms of funds and POL, and plan for a battalion field training exercise.

The next exercise focuses on managing limited resources (money and manpower) to accomplish assigned missions. The students, acting as members of a directorate of industrial operations maintenance division, formulate a budget on the basis of written and oral guidance.

As part of the training scenario, the world situation worsens, and the division, which has two active brigades and a reserve component roundout brigade, must mobilize.

The students then develop selected portions of mobilization plans with the goal of developing an understanding of the basic staff considerations associated with the mobilization process. The students play the role of staff officers of the mobilizing brigade, or of officers on an installation staff, in both cases' planning for the support and reception of the mobilized units.

After the mock mobilization, the students then focus on planning combat operations in a NATO setting and prepare individual staff estimates and a division operations plan. They also formulate the deployment plan and the logistics support plan for the division during the movement.

Finally, the student staff goes through the entire staff planning sequence and the command-post execution of two division-size operations.

In short, in CAS<sup>3</sup> the students learn how to analyze and solve problems, coordinate the solutions, and properly communicate those solutions — abilities that will allow the graduates to perform better as staff officers.

### SHORT-TERM EXTENSIONS

Army Reserve officers who are serving their initial three-year or four-year active duty service obligations no

longer need to request short-term extensions to complete full overseas tours. All they have to do is complete the Overseas Tour Election Statement, DA Form 5121-R, at their MILPOs, and their short-term extensions will be approved automatically.

In the past, officers who first had to complete the basic course and other qualification courses often did not have enough time left on their initial obligations for them to serve a full overseas tour. And officers who wanted their families to accompany them overseas had to submit a request for short-term extension on active duty and wait for approval before they could apply for movement of their families.

Changes to AR 135-215 and DA Pamphlet 600-8-10 will soon require MILPOs to send a copy of an officer's DA Form 5121-R to the appropriate career management division at MILPERCEN as a record of the tour election and the voluntary extension.

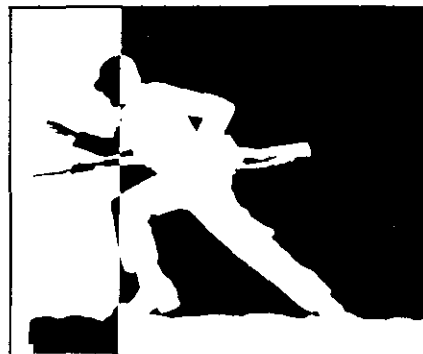
For more information, anyone who is interested may write to MILPERCEN, ATTN: DAPC-OPP-M, or call AUTOVON 221-7680.

### IOAC/RC

The following is the Summer 1985 schedule of the resident phases of the Infantry Officer Advanced Correspondence Course to be offered for Reserve Component officers:

#### PHASES:

2 and 6	14 July to 26 July
4 and 6	28 July to 9 August
2 and 4	11 August to 23 August



# BOOK REVIEWS



Jane's Publishing Company recently sent us for review another of its outstanding and authoritative reference publications — the 1984-1985 edition of *JANE'S ARMOUR AND ARTILLERY* (897 pages. \$125.00). This edition, like its predecessors, is edited by Christopher F. Foss, who is quite knowledgeable in matters pertaining to armor and armored vehicles. The addenda pages update the volume's contents to September 1984.

In his foreword, Foss looks at the major production efforts and the possible future endeavors of the armor and artillery producing countries of the world, and foresees more intense international competition in the field than there has been during the past few years. He does not look for any marked decrease in those production efforts.

Foss has followed his usual breakdown of 13 subjects, among which are reconnaissance vehicles, armored personnel carriers, self-propelled guns and howitzers, multiple rocket launchers, and tanks. The volume includes a tabular listing of all the armor and artillery in service throughout the world. Historical data, where relevant, is also presented.

What Foss does not say about the Patton series of U.S. main battle tanks — the M46 through the M60 — Richard Hunnicutt says in his latest book on U.S. tanks — *PATTON: A HISTORY OF THE AMERICAN MAIN BATTLE TANK, Volume 1* (Presidio Press, 1984. 464 Pages. \$55.00). In his two previous books, similar in format to this one, Hunnicutt described the Sherman and the Pershing tank series.

He overlooks little if anything in detailing the Patton tank story, and writes of its historical development, armor, armament, power trains, running gear, and ammunition. But he also feels that this is an interim history

at best, that Patton tanks, in one variation or another, will be around for years to come. As he says, "possible future developments ... will, no doubt, provide a wealth of material for yet another volume to complete the story."

Another Jane's book we want you to know about is the recently published *ARMED FORCES OF LATIN AMERICA: THEIR HISTORIES, DEVELOPMENT, PRESENT STRENGTH, AND MILITARY POTENTIAL*, by Adrian J. English (1984. 490 Pages. \$50.00). This is a first-of-its-kind survey of Latin America's armies, navies, and air forces. A British author, English is an acknowledged expert on Latin American military affairs and is a military analyst.

Numerous maps and photographs complement a well-ordered text, which traces each armed force from its beginning to the present against a background of geographic, economic, and political factors. It is a particularly timely, as well as useful, reference book, one that the U.S. military professional should not ignore.

Another fine and useful reference work is Greenwood Press's three-volume *DICTIONARY OF AMERICAN MILITARY BIOGRAPHY*, edited by Roger J. Spiller and Joseph G. Dawson (1984. \$145.00 the set). The publisher asked 237 scholars to contribute one or more 1,500-word biographical essays on particular men and women — 400 all told — who figured importantly in American military history. Only a few of the 400 are still living.

Roughly half of each essay is taken up with a narrative of the person's career, including, where possible, the exact facts of birth and death. The latter half contains the essayist's appraisal of the person's importance to the course of American military history.

Each essay not only bears the writer's name but also includes a list of books for further research selected on the basis of scholarly accuracy and availability to the general public. An asterisk following a name within an essay indicates a cross-reference to another entry in the dictionary.

The series also includes six appendices — a chronology of American military developments, military ranks, military units, persons by birthplace, entries by conflict, entries by service — and a comprehensive name index.

The publisher refers to this series as "a milestone reference work." We agree wholeheartedly.

The Osprey Publishing Company of London, England, has sent us a number of its recently published soft-bound volumes in its Men-at-Arms, Elite, and Vanguard series.

The Men-at-Arms volumes contain authentic, detailed, and attractively presented information on the history and appearance of the world's fighting men. Each 48-page book includes a concise narrative, some 40 photographs and diagrams, and eight pages of full-color artwork. The series covers subjects from ancient Egypt to the armies of the 1980s. Each book sells for \$7.95.

The books in the Elite series follow the same format as the Men-at-Arms books but have more text pages and captions. Each of these books has more than 50 photographs and 12 full-color drawings, all in 52 pages, and sells for \$9.95.

The Vanguard books, each 40 pages in length, also are printed in the same format but are used to describe key units and weapon systems of 20th century warfare, with a strong emphasis on armored equipment and operations. Each book sells for \$7.95.

Here are some of the more recent

titles in each series:

• **THE AGE OF CHARLEMAGNE**, text by David Nicolle, color plates by Angus McBride (Men-at-Arms #150).

• **THE PARAS: BRITISH AIRBORNE FORCES, 1940-1984**, text by George Ferguson, color plates by Kevin Lyles (Elite series #1).

• **THE U.S. MARINE CORPS SINCE 1945**, text by Lee E. Russell, color plates by Andy Carroll (Elite series #2).

• **ARMOUR OF THE VIETNAM WAR**, text by Simon Dunstan, color plates by Peter Sarson and Tony Bryan (Vanguard series #42).

• **THE M1 ABRAMS BATTLE TANK**, text and color plates by Steven J. Zaloga (Vanguard series #41).

• **THE SCOTTISH AND WELSH WARS, 1250-1400**, text and color plates by Christopher Rothero (Men-at-Arms #151).

• **PRUSSIAN LINE INFANTRY, 1792-1815**, text by Peter Hofschroer, color plates by Bryan Fosten (Men-at-Arms #152).

• **NAPOLEON'S GUARD INFANTRY (I)**, text by Philip Haythornthwaite, color plates by Bryan Fosten (Men-at-Arms #153).

Finally, we want you to know about the latest edition of the Government Printing Office's catalog Y-5 titled **U.S. GOVERNMENT BOOKS**. It lists nearly 1,000 new and popular Government books, including a fine selection of military publications. The catalog is issued quarterly and is available free upon request.

The GPO maintains a sales inventory of more than 16,000 titles, ranging in subject from agriculture to zoology, and encourages every citizen to take advantage of this vast information resource. We urge our readers to send for this catalog, and for the other GPO catalogs we mention in our pages.

Here are a number of our longer reviews of books we think you should know about:

**HISTORY OF THE UNITED STATES ARMY. Enlarged Edition.** By Russell F. Weigley (Indiana University Press, 1984, 730 Pages.) Re-

viewed by Lieutenant Colonel Richard P. Dexter, United States Army. In this revised version of his well-received original history of the Army, Professor Russell Weigley, from Temple University, has followed the same basic outline. He has partitioned this book neatly into four areas: the foundation (1607-1794), the formative century (1794-1898), a destiny of world power (1898-1945), and the years from 1945 to the present, which includes a new Chapter 23. He has also updated his appendixes, but for some unexplained reason he has deleted warrant officers from the Army's strength figures beginning with 1971. The 93 pages of notes and documents alone are worth the price of the book. General William DePuy may be upset, though, that his name was misspelled the only time it was mentioned as the main contributor to the 1976 version of Field Manual 100-5.

In some of the early chapters, the reader may feel the author has fallen prey to what another historian, Barbara Tuchman, has called the "overload of the negative." Weigley's chronicle of the administrative disasters that have befallen the Army during the past 200 years, may cause a reader to wonder how the Army has succeeded in any of our country's wars. In a few instances I felt I was reading the script for a major television network's evening news.

A common theme throughout the book is the role of the citizen-soldier versus that of a member of the standing professional army. Weigley goes on record as being non-Uptonian in his views on that problem, for he still sees the role of the Reserve Components today as being as "murky as at any time" in our history. He also challenges the "short war" theory that is presently in vogue, feeling instead that any future war will be a protracted affair in which the Reserve Components will have an appropriate role.

This book should be read by every military professional. It may make some people mad, but it will make all of them think.

**MILITARY LESSONS OF THE FALKLAND ISLANDS WAR: VIEWS FROM THE UNITED STATES.** Edited by Bruce W. Watson and Peter M. Dunn (Westview Press, 1984, 181 Pages, \$18.50). Reviewed by Leroy Thompson, Mapaville, Missouri.

This book is a typical "think tank" product in that it offers a lot of information, only a small percentage of which is of direct value to a field commander. In fact, the most valuable lesson the contributors to this book underscore as a result of the fighting in the Falkland Islands is that, despite a wealth of sophisticated technology available on all sides, a combat infantryman is still needed.

This particular war may be cited as being a testing ground for modern technology, but it was the men of the Parachute Regiment, the SAS and SBS, and 40, 42, and 45 Commandos who won the decisive victory with their rifles, their bayonets, and their feet.

The book is divided into nine principal chapters, each dealing with different "lessons" learned from the fighting. For the readers of **INFANTRY**, the one titled "Ground Warfare Lessons" is probably the most interesting, but the chapters titled "Smart Weapons" and "Intelligence and Warning Lessons" also have something to offer.

Many of the book's conclusions seem rather simplistic to anyone who has really studied the South Atlantic conflict. Still, the book can serve as a primer for someone just beginning a study of the war.

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**FOR YOU THE WAR IS OVER.** By David A. Foy (Stein and Day, 1984, 193 Pages, \$18.95). Reviewed by Captain John C. Edgcomb, United States Army.

This is a unique book in that it is a detailed account of the manner in which the Germans handled American prisoners of war during World War II. The author has done his homework well, and his account is well researched and documented. His story

should eliminate any doubt a reader may have had about the extreme hardships, constant death threats, and continuous fear the American prisoners lived with and endured. In fact, this book is a tribute to the strength and courage those men showed.

This is an interesting book, easy to read, and one that should appeal to all readers.

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**SOME SURVIVED.** By Manny Lawton (Algonquin Books, 1984. 295 Pages. \$16.95). Reviewed by Lieutenant Colonel David R. Kiernan, United States Army.

Manny Lawton is a survivor. For the current generation of Americans who may not be aware of the Bataan death march, Lawton takes the reader along on it step by agonizing step.

Lawton's book is a tribute not only to him as a survivor but to the American soldier and his ability to adapt to unbelievably harsh conditions. His capacity for compassion and the camaraderie of suffering seem never ending as the survivors combat adversity minute by minute, day by day, and, ultimately, year by year.

Today's infantryman may take Lawton's chronicle as a lesson he will not find in the technical manuals or field expedient handbooks. That lesson is endurance. In this age of star wars and lasers, it is fitting to consider the human combat multiplier. While other kinds of battles were being fought by other American soldiers in Europe, in Asia, and throughout the Pacific Ocean basin, Lawton and his band measured the success of their daily battle to survive with a mental micrometer. In the end, we, too, survive with the Battling Bastards of Bataan.

To survive is to remember, and to remember is to acknowledge the fact that the indomitable spirit of the fighting man is the ultimate strength of any army.

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**THOSE GALLANT MEN: ON TRIAL IN VIETNAM.** By John S. Berry (Presidio Press, 1984. 173

Pages. \$14.95). Reviewed by Captain F.R. Hayse, United States Army.

This book tells a story about the law, the military services, and military law as it was practiced during the Vietnam War by then Captain John Stevens Berry. Now a practicing attorney in Lincoln, Nebraska, Berry looks at the Vietnam War from the little known and seldom considered perspective of a military defense counsel. And much like Doctor Ronald Glasser's book, 365 DAYS, Berry's book shows the true compassion, humanitarianism, and sense of legal equality that is found wherever American youth is confronted with the terrifying realities of war. Unlike the many-storied portfolio of 365 DAYS, however, Berry's book is divided into only two parts.

The first part tells of Berry's experiences as the chief defense counsel for II Field Force, Vietnam, in 1968 and 1969 and his legal representation of soldiers who were accused of offenses ranging from theft and desertion to rape, murder, and "fragging." These cases illustrate how the author attained the skills he used so successfully to defend his most difficult and famous case, the almost forgotten trial of Captain Leland Brumley.

Berry's defense of Captain Brumley and six other Special Forces officers (including Colonel Robert Rheault) accused of murdering a North Vietnamese agent in June 1969 forms the second part of his book. Although the case was well publicized at the time by various news sources, Berry uses actual testimony, his personal records, and material released through the Freedom of Information Act to give a unique account of a fascinating case that reached from the highest headquarters in Vietnam to the White House.

This book, well written and informative, should be read by every officer in the Army today.

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**A MATTER OF HONOR.** By Don Kowet (Macmillan, 1984. 317 Pages. \$16.95). Reviewed by Doctor Joe P. Dunn, Converse College.

General William Westmoreland is an honorable man who has been wronged. The famous January 1982 CBS documentary "The Uncounted Enemy" charged that the MACV commander caved in to political pressures and orchestrated a "conspiracy" to undercount the number of enemy prior to the 1968 Tet offensive. The program's implication was clear — Westmoreland bore moral responsibility for the casualties of that event.

I knew a bit about the eccentricities of orders of battle in Vietnam, and I had read CIA analyst Sam Adams's explosive 1975 "expose" in *Harpers*, the genesis of this whole controversy. Thus, I was taken in by the documentary. The problem is that the documentary was false.

Westmoreland claimed that he had been tricked and defamed; and an independent *TV Guide* cover story found the documentary flawed and grossly unfair. Although CBS's own internal investigation substantiated most of the *TV Guide* charges, the network was determined to stand by its product. Ultimately, General Westmoreland sued for libel.

This book is the full account of these convoluted events. It is a devastating, damning indictment of the documentary and its producer and others who were swept into the affair at CBS. But it does have flaws of its own. Kowet, one of the co-authors of the *TV Guide* piece, might have been better advised to stop with the award-winning article. His attempt to stretch it to book length has produced a tedious, overly minute saga. Equally tiring is the book's breathless, soap opera manner with its own strong conspiratorial overtones. But to the extent that Kowet helps us understand the background and the issues, his is a valuable contribution on "a matter of honor."

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**SOMME.** By Lyn Macdonald (Merimack, 1983. 344 Pages. \$19.95). Reviewed by Lieutenant Colonel David A. Rolston, United States Army.

*Somme*. One word with two meanings: One, a place in France; the other, the epitome of World War I. A name like Belleau Wood, Argonne, Ypres, and Vimy Ridge. Trenches, mud, going over the top, barrages, gas, and, most of all, death. Casualty figures so high that few of us today can comprehend them.

There are many books on the Great War, a number of them good, a few great. Most deal with the order of battle, with the maneuvering, and with who occupied which trench line on what day. Most address the horrors and the futility of trench warfare as it was practiced on the Western Front. Few give a real picture of life on the front; but Macdonald's book does.

Lyn Macdonald has written a masterpiece. She tells the story of life in Kitchener's army as the soldiers saw it, not in terms of grand strategy and tactics — although those too are addressed — but in day to day life. By thoroughly researching personal journals and diaries and interviewing many survivors, she has been able to put together a complete picture of this battle. She tells it through the eyes of those who were there and relates both the good and the bad.

This book is a must for the professional soldier and for those who wish to understand what war is all about.

Like John Keegan's book *THE FACE OF BATTLE*, Macdonald's book provides real insight into combat. Experienced soldiers will read it and immediately identify with their comrades of a previous generation.

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**THE ROSES OF NO MAN'S LAND.** By Lyn Macdonald (Merrimack, 1984. 319 Pages. \$19.95). Reviewed by Jeanette R. Dunn, Spartanburg, South Carolina.

This is Lyn Macdonald's third volume on World War I, and in it she skillfully weaves narrative, historical detail, and eyewitness accounts to portray the struggle of the medical personnel who labored behind the battle lines.

World War I revolutionized medical treatment. As doctors and nurses fought to save lives, researchers developed new treatments for gangrene, effective means of blood typing and transfusion, and improved surgical and dental techniques.

Specifically, the author emphasizes the contributions of the Voluntary Aid Detachments (VADs). Organized in Britain in 1909, the VADs were designed to help the island nation during time of war. The young women who flocked to join the VADs were trained to organize transportation,

provide food and dressings for ambulance teams, and establish field kitchens and auxiliary hospitals. In short, during World I they became an integral part of England's war effort.

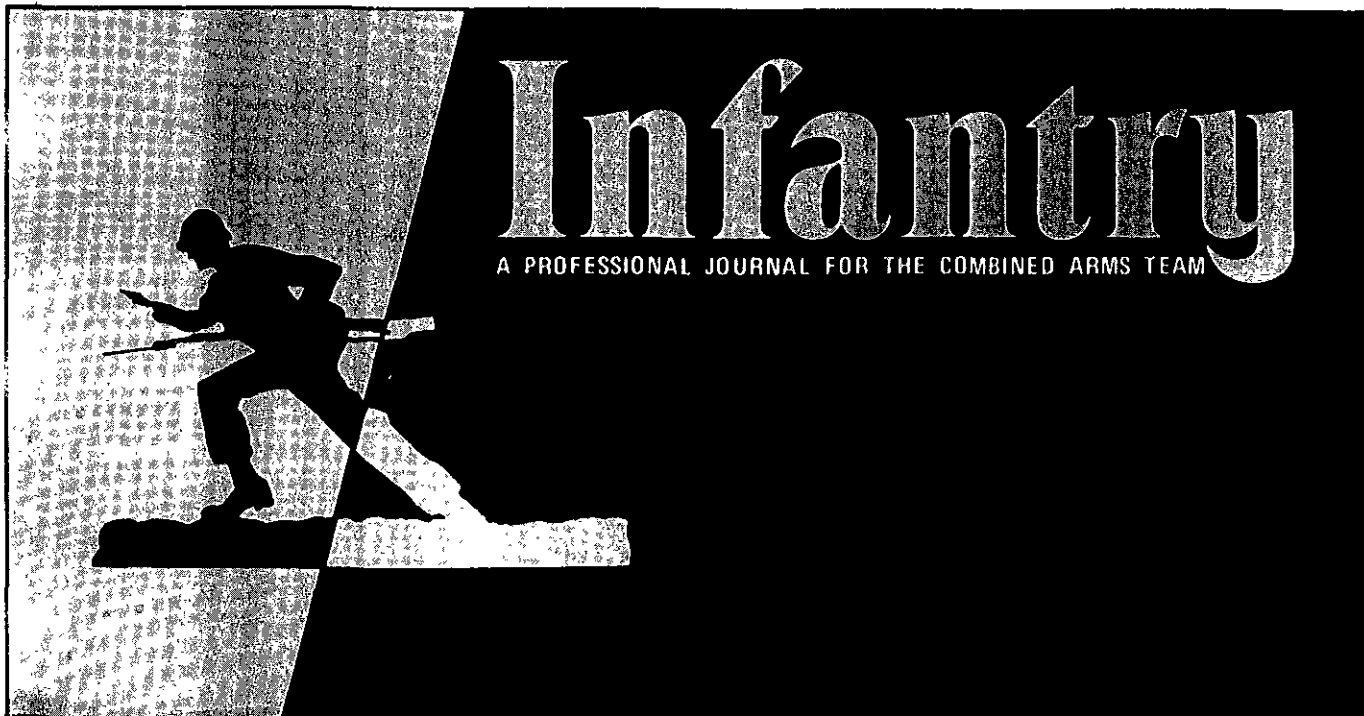
This is a fascinating book. It is easy to read and can be appreciated by a wide audience. Although written by a journalist, it provides valuable historical perspective. Macdonald captures the initial optimism of the Allied soldiers and then their despair as the casualty rolls lengthened relentlessly.

The poignant accounts of the gruesome, wasteful nature of prolonged trench warfare remind us that the experiences of the Vietnam generation were no more horrific than those of our fathers and grandfathers.

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**OPERATION PEACE FOR GALILEE: THE ISRAELI-PLO WAR IN LEBANON.** By Richard A. Gabriel (Hill and Wang, 1984. 242 Pages. \$16.95). Reviewed by Major Robert L. Maginnis, United States Army.

This is a responsible, accurate, and provocative account of the 1982 Israeli invasion of Lebanon. Richard Gabriel, the author of 15 books and scores of articles on military subjects, focuses his attention on the causes and



# BOOK REVIEWS

conduct of the war, and bases his narrative on numerous interviews he conducted during a visit to the area. His first-hand perspective helps the reader visualize the blow-by-blow dynamics of the modern battlefield.

Gabriel feels that the Israeli aim in Lebanon was to destroy the PLO's military infrastructure and political validity. He supports his theory with a thorough, well-documented analysis of the political histories of both the PLO and its archenemy, Israel.

The author's insights and observations, particularly about the Israeli armed forces, are worth further study, and the combat information and the lessons learned warrant further professional investigation. (In fact, the U.S. Army might learn a great deal from the Israelis' successes with their new Merkava tank and their remotely piloted vehicles.)

These issues, as well as the informative political analysis, the description of those small unit tactics used in the day-to-day fighting, and the innovative Israeli approach to medical support make this book worth reading.

Robert Young. Thames and Hudson, 1984. 212 Pages. \$24.95.

**THE BLUE AND WHITE DEVILS: A PERSONAL MEMOIR OF THE THIRD INFANTRY DIVISION IN WORLD WAR II.** By Hugh A. Scott. Battery Press, 1984. 173 Pages. \$16.95.

**HISTORY OF THE 94th INFANTRY DIVISION IN WORLD WAR II.** Edited by Lieutenant Laurence G. Byrnes. Originally published in 1948. Battery Press, 1984. 535 Pages.

**THE HISTORY OF THE 43d INFANTRY DIVISION, 1941-1945.** By Colonel Joseph E. Zimmer. Originally published in 1945. Battery Press, 1984. 96 Pages.

**AMERICAN WARS AND HEROES: REVOLUTIONARY WAR THROUGH VIETNAM.** Adapted from AMERICAN MILITARY HISTORY, OCMH, United States Army, General Editor: Maurice Matloff. Adaptation edited by Stanley M. Ulanoff. ARCO, 1985. 378 Pages. \$19.95.

**THE LORE OF ARMS.** By William Reid. Facts on File, 1984. 256 Pages. \$10.95.

**NORTH AMERICAN FIGHTING UNIFORMS: AN ILLUSTRATED HISTORY SINCE 1756.** Edited by Michael Bowers. Sterling, 1984. 128 Pages. \$14.95.

**THE UNOFFICIAL MRE RECIPE BOOKLET.** McIlhenny Company, Department MRE, Avery Island, Louisiana 70513, 1985. 18 Pages. \$5.00, Softbound.

**CANTEEN CUP COOKERY.** By Galen Geer. Desert Publications, 1985. 46 Pages. \$5.95, Softbound.

**PRIVATE ELISHA STOCKWELL, JR., SEES THE CIVIL WAR.** Edited by Byron R. Abernathy. A Reprint. University of Oklahoma Press, 1985. 224 Pages. \$6.95, Softbound.

**THE DRAGON'S PALACE: WRITTEN DURING THE COMBAT ON OKINAWA IN 1945.** By Daniel Rhea. Lyons Printing Company, 1984. 142 Pages. \$10.00, Softbound

**THE U.S. ARMY TOTAL FITNESS PROGRAM.** By Dianne Hales and Lieutenant Colonel Robert E. Hales. Crown Publishers, 1985. 226 Pages. \$14.95.

**A QUICK AND DIRTY GUIDE TO WAR: BRIEFINGS ON PRESENT AND POTENTIAL WARS.** By James F. Dunnigan and Austin Bay. Morrow, 1985. 415 Pages. \$17.95.

**BOMBER HARRIS.** By Dudley Seward. Doubleday, 1985. 347 Pages. \$19.95.

**PATTERNS OF WAR SINCE THE EIGHTEENTH CENTURY.** By Larry H. Addington. Indiana University Press, 1985. 318 Pages. \$10.95, Softbound.

**ALL-ASIA GUIDE.** 13th Edition. Tuttle, 1985. 704 Pages. \$11.95, Softbound.

**A LAMB TO SLAUGHTER.** By Jan Montyn and Dirk Ayelt Kooiman. Viking, 1985. \$16.95.

**WARS AND RUMORS OF WAR: A MEMOIR.** By James Marshall-Cornwall. David and Charles, 1984. 257 Pages. \$24.95.

**THE STORY OF THE BOY SOLDIERS.** By A.W. Cockerill. David and Charles, 1984. 236 Pages. \$24.95.

**NATO AND THE WARSAW PACT: FORCE COMPARISONS.** NATO Information Service, Brussels, 1984. 52 Pages, Softbound.

**HOW TO SURVIVE ON LAND AND SEA.** Fourth Edition. By Frank and John Craighead. Revised by Ray Smith and D.S. Jarvis. Naval Institute Press, 1984. 329 Pages. \$14.95, Softbound.

**THE PUSAN PERIMETER.** By Edwin P. Hoyt. Stein and Day, 1984. \$19.95.

**SAFE FOR DEMOCRACY: THE ANGLO-AMERICAN RESPONSE TO REVOLUTION, 1913-1923.** By Lloyd C. Gardner. Oxford University Press, 1984. 400 Pages. \$25.00.

**GERMAN MILITARY INTELLIGENCE IN WORLD WAR II: THE ABWEHR.** By Lauran Paine. Stein and Day, 1984. 199 Pages. \$16.95.

**WAFFEN-SS AT WAR.** By A.J. Barker. Hippocrene, 1984. 128 Pages. \$19.95.

## RECENT AND RECOMMENDED

**THE FRENCH FOREIGN LEGION.** By John

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

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# From The Editor

## **A DISTANT CHALLENGE NOW IN PAPERBACK**

We have just received a copy in paperback format of our second Vietnam-era book, *A DISTANT CHALLENGE*, which we first published as a hardcover book in 1971. (See *INFANTRY*, January-February 1971, page 68.) It is a Jove Book, reprinted by the Berkley Publishing Group from The Battery Press's 1983 hardcover reprint. (See *INFANTRY*, September-October 1983, page 46.) The selling price on the cover is \$3.50.

As we mentioned in our last issue, the first of our Vietnam-era books — *INFANTRY IN VIETNAM* — was also reprinted recently as a Jove paperback from the 1982 Battery Press reprint.

Neither the hardcover nor the paperback reprints are complete reprints of the original volumes. In one book, an entire chapter was omitted, and the appendixes were omitted from both. Still, both of these reprints do carry all of the battle actions that were printed in the original volumes.

## **MAIL ADDRESS SURVEY**

Regulations require us to update our appropriated fund mailing list every two years. Accordingly, we have sent survey cards to all the addresses on our free distribution list — units, staff agencies, senior ROTC detachments, and the like — and have asked them to complete the cards and return them promptly. In particular, we need 9-digit zip codes for all these addresses.

Many of our addressees have returned their cards properly filled out; some have not. We ask the latter group to please return their cards by 1 July 1985. If we do not have the cards by that date, we will have to delete those addresses from our mailing list.

If your office or unit has not received a survey card or has misplaced its card, you should contact our editorial offices as soon as possible. Our telephone numbers are AUTOVON 835-2350 or 784-4951; commercial (404) 545-2350 or (404) 544-4951. Our mailing address is P.O. Box 2005, Fort Benning, GA 31905-0605.

## **HOT LINE**

The Infantry School maintains a hot line for military callers for around-the-clock contact with the field. If you have a general question, or a question dealing specifically with the Army Training and Evaluation Program (ARTEP), or if you have something of an immediate nature to pass on, the number to call is AUTOVON 835-7693, commercial (404) 545-7693.

If you have a lengthy question or comment, please send it in writing to Commandant, USAIS, ATTN: ATSH-SE, Fort Benning, GA 31905-5452.

## **I AM THE INFANTRY WIFE**

**I am the Infantry wife. For two centuries, I have stood beside you. Not always visible, often in the background, but always there. Fearfully waiting but strong and willing, rendering aid, giving support anytime, anywhere, regardless of the cost. I've paid freedom's high price with my tears and heart's blood in war, in threat of war, and in peace . . . I AM THE INFANTRY WIFE!**

**From our nation's birth, as we weaved the soldier's tapestry, I was there. I ached with uncertainty and a fearful perception only a woman feels at birth. I've been on the battlefield, I've bandaged the wounded, I've loaded and fired a cannon and, yes, I've held the hand of a dying soldier giving him strength for the final battle . . . I AM THE INFANTRY WIFE!**

**When this great nation was torn with strife during the Civil War, I was there. I stood helpless against your pride as brother fought brother, neighbor fought neighbor. I walked the blood-stained ground at Gettysburg. I was there at Appomattox and I was relieved . . . I AM THE INFANTRY WIFE!**

**When duty called you "over there," I stayed behind. I worked your factories and your farms. As FDR kept me informed of your progress, I kept my ear to the radio and my eyes toward heaven, but my heart was with you. I've been dubbed a "camp follower" and even a "war lover" by some. They didn't understand that I AM THE INFANTRY WIFE!**

**With the big wars over, our nation flourished with a healing wave. Times were good! We were united. Then, I sent you to Korea. Somehow amidst that confusion, I gathered strength and stood tall. What's the difference between a war and a conflict? Sometimes I don't understand, but I AM THE INFANTRY WIFE!**

**And then, another conflict – I sent you to Vietnam. As I waited, I watched the protests from Berkeley to Kent State. Young Americans burned their draft cards and fled to Canada. Even our flag went up in flames. Through my tears, I held my head high and with pride I welcomed you home, for I AM THE INFANTRY WIFE!**

**Maybe that was the most bitter time, certainly the most bitter test for you. You were called a murderer and a child killer. I cringed at the rejection you received but I stood calmly and proudly beside you. I never judged, I never wavered. You leaned on me, for I AM THE INFANTRY WIFE!**

**When the time comes for me to join the men who have fought and died in freedom's cause, may I take my place beside you and through eternity. I AM THE INFANTRY WIFE!**

*Sylvia Birdwell  
Fort Richardson, Alaska*