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Infantry

November-December 1996

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Infantry

November-December 1996 **Volume 86, Number 6**

COVER: The Infantryman's weapons and equipment may change, but these three U.S. soldiers are doing the same thing in Vietnam that their counterparts have done throughout the history of our Army, seeking out the enemy on his own territory.

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Commandant's NOTE

MAJOR GENERAL CARL F. ERNST Chief of Infantry

THE FUTURE OF THE INFANTRY IN FORCE XXI

Americans in 1950 rediscovered something that since Hiroshima they had forgotten: you may fly over a land forever; you may bomb it, atomize it, pulverize it and wipe it clean of life—but if you desire to defend it, protect it, and keep it for civilization, you must do this on the ground, the way the Roman legions did, by putting your young men into the mud.

These words are as relevant today as when T.R. Fehrenbach penned them in *This Kind of War—A Study in Unpreparedness,* and we would do well to keep them in mind as we approach the challenges of the next century.

The future role of the Infantryman is clear: He—and the skills he employs—will remain the keystone of force projection for a long time to come. In today's world, nations continually face threats to their stability and national interests, and the United States is no exception. The breakup of the Soviet Union—with the subsequent perceived reduction in the threat it had posed—has in turn led to reductions in the armed forces of some NATO members. The monolithic threat of the Soviet Union has been supplanted by smaller but more numerous, varied, and often less predictable ones. For the first time, many Third World states and smaller entities now have access to advanced night vision, armor, antiarmor, air defense, and mass destruction technologies, in addition to considerable amounts of low-tech arms and munitions. These are some of the challenges that our Army will face as we enter the next millennium, and in this issue's Commandant's Note I want to discuss the role of our Infantry as we consider the prospects of deploying forces in support of our national interests in the year 2000 and beyond.

Among the less-developed armies of the world, the bulk of their combat power is concentrated in light Infantry forces, for these can most easily be sustained in their regional environments and without unduly draining their already limited resources. To an ever-increasing extent, we are also likely to encounter concentrations of such forces in and around urban areas as populations are drawn to cities in search of a secure economic and political infrastructure. Add to this the pervasive potential for the resurgence of traditional rivalries and internal conflicts—such as we have already seen in the breakup of Yugoslavia, in Somalia, in Haiti, and in Rwanda. The challenge of restoring and maintaining stability means that we must increase emphasis on our ability to operate in urban environments, and to be prepared to address a more diverse array of adversaries than we have encountered before.

The advantages in flexibility, agility, maneuverability, and firepower that have enabled the combined arms team to execute bold maneuver that led to decisive victory in Panama and Desert Storm will be degraded in the close fight in built-up areas. Urban combat will be largely an Infantry fight, but will require the support of the combined arms team. The Infantry must be prepared to force our way in, destroy the enemy, and clear streets, buildings, and areas. That is why we must continue to maintain our lead in own-the-night technologies, Soldier systems—including state of the art weapons, the tactics and techniques of combat in built-up areas, and prevention of fratricide and noncombatant casualties and collateral damage.

Forced entry ("GRUNTspeak": Deploy with 18 hours notice, anywhere in the world, kick in the door, kick in their teeth, establish a lodgement, flow in combined arms reinforcements and sustain the mission as long as necessary) has wider implications as well. Even in theaters

that have the ports and airfields to support our rapid deployment, not all will have the necessary degree of security and be stable enough to let us land unopposed. That is why we must continue to organize, train, and equip Ranger, airborne, and air assault Infantry units to seize and hold the airfields, ports, and other facilities essential for the rapid insertion of follow-on forces—tanks, mechanized Infantry, and the rest of the combined arms and services team.

The scope of operations for the Infantry, including stability and support operations, has broadened, and we must train and equip the entire force to accomplish both its old and new missions. Our Infantry will operate as light, airborne, air assault, Ranger, and mechanized forces across the full spectrum of land warfare, to seize, hold, and dominate the 21st century battlefield under all rules of engagement. As always, this will be accomplished primarily through close combat, simply because this—and only this—can bring about the defeat of an enemy or the required end state of stability and support operations.

Force XXI embraces a number of exciting concepts that will ensure our military preeminence as we enter the next century, such as the impact of information systems and the critical battle dynamics that we must learn to recognize and exploit. The foundation of success, however, lies in the patterns of operations that will guide our efforts in the immediate future and long term. These patterns are not new concepts; indeed they have been integral elements of our planning and doctrinal considerations for some time. They are:

Project the Force—Infantry-led early/forceable entry, followed by mechanized Infantry with armor.

Protect the Force—Infantry will continue to provide the basis for securing the lodgement.

Gain Information Dominance—Infantry reconnaissance from corps long-range surveillance companies (LRSCs), division long-range surveillance detachments (LRSDs), battalion reconnaissance platoons, and reconnaissance by all types of infantry squads/platoons.

Shape the Battlespace—Seizing or securing key and decisive terrain; defending same to enable offensive maneuver; raiding to destroy key targets/nodes, among other infantry enabling missions.

Execute Dominant Maneuver—While this calls to mind the infantry-tank-field artillery team in the decisive close fight, supported by the rest of the combined arms team, it has wide and more traditional implications as well. Just as Fehrenbach has pointed out, ultimate victory will go to the nation that demonstrates the willingness to put its soldiers on the ground, to meet the adversary eye-to-eye, and to force the issue. Rome maintained a sustained peace in her area of interest for over two centuries through the implied—and, when necessary, applied—might of her legions. Little has changed in that regard, and our ability to dominate any area of operations will be the key to success, both in the close fight and in non-traditional missions.

These principles have Army-wide relevance, but they have particular significance for the Infantry. Our branch has historically been the first to take the fight to the enemy, and take it to him up close and personal. These patterns of operations will guide us as we continue to train, field, and sustain the Infantrymen who will be the centerpiece of a force projection Army that can swiftly deploy, deliver the knockout punch, and return to train for its next mission.

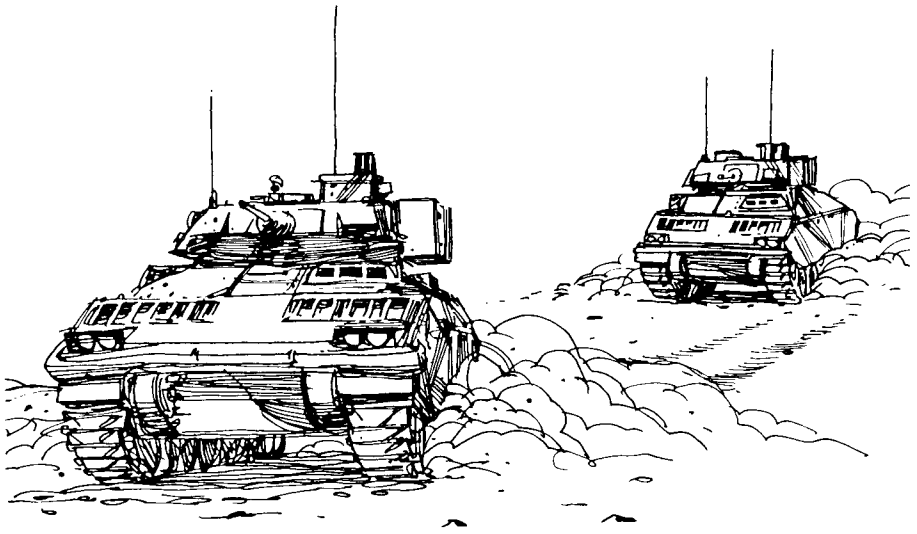
The March-April 1997 Brigade Advanced Warfighting Experiment included one light Infantry battalion (1st Battalion, 5th Infantry, 25th Infantry Division, Fort Lewis) and one mech battalion (1st Battalion, 22d Infantry, 4th Infantry Division, Fort Hood). The 1-5 was equipped with Javelin, own-the-night, and the 120mm mortar with the modular fire control system, all clear winners making light Infantry more than a match for the OPFOR. The 1-22 was organized with the 2x9+5 (two 9-man squads plus two machinegun teams per platoon) and the platoons were full. Mechanized Infantry without Javelin and own-the-night kit (mechanized Infantry is scheduled to get both) but with real strength proved that they can infiltrate early, gain a foothold or defend dismounted to both deny ground and shape a mobile fight.

Both of these battalions did us all proud!

Hooah!

INFANTRY LETTERS

"NEXT IFV" IS TOO HEAVY



I am writing in response to Captain Greg Pickell's article "Designing the Next Infantry Fighting Vehicle" (INFANTRY, July-August 1996, pages 22-32).

As you're going to see in Bosnia, the 33-ton Mz and 63-ton M1A1 are too heavy for most roads and bridges in the Third World. Instead of spending $100 million now so we can have a light tank—the M8 AGS (armored gun system)—we're "researching" a 43-ton external gun tank to replace the M1 series.

While I appreciate Captain Pickell's idea of making a turretless M1 into an IFV in the style of the Israeli Defense Force, this is not what we need desperately in a world that moves by air. If it cannot be airdropped or STOL (short takeoff and landing) airlanded directly onto the battlefield—not a heavily defended airfield with concrete runway—it will not be there in time. His 50-ton IFV is too heavy if it takes weeks or months to get to the battlefield. I know the capabilities of the C17 aircraft; less than a dozen delivering one M1 main battle tank or turretless IFV at a time isn't going to deploy significant combat mass. The United States will again become a "paper tiger," reluctant to deploy its light troops because it has given or thrown away its M113 armored personnel carriers. (See the article in the December 1996 issue of *Soldiers* magazine on building reefs in the Atlantic using demilitarized M113s and M60 tanks). An M113A3 with an EX-35 105mm external gun or 106mm recoilless rifle would be a better use of our money and would save lives. An M113A3 or an M8 is better than nothing—but nothing is what we'll have if we keep pursuing 50-ton monster armored vehicles.

The Army should be geared to the best fighting efficiency, not to keeping Bradley infantrymen and Abrams tankers employed. Waiting for them to airland and forcing the airborne units to seize a heavily defended airfield for them is tantamount to suicide. We've got to look past self-serving narrowness and see that the U.S. is a strategic air power, just as England was once the world's preeminent sea power. Like the Russians, we need our airborne to be a completely mobile combined arms team that after landing can converge on the enemy's vulnerable center of gravity while he's still disoriented. Waiting for *anything* instead of moving out at once is a recipe for disaster on the information-age battlefield. Even the "bad guys" have cell phones and watch CNN.

Except as a future replacement for the Bradley in heavy divisions, I disagree with Captain Pickell's idea. We are ignoring the force structure of the units that are going to actually fight, not languish in a motor pool in the continental United States. I, for one, do not want to see the world lost to aggression because we are dependent upon heavy vehicles to deploy a force that can fight and win. When we really have to fight somewhere in a hurry, this mindset will result in nothing—our light troops fighting with only the weapons they have in their hands because the heavy elements cannot get to the fight. We cannot afford to have our light units sacrificed because they lack the backup of heavy units and their commensurate firepower.

Somalia was only a foretaste of the future. Let's hope we can get some air-deliverable armored fighting vehicles (AFVs) to our airborne and light troops before North Korea invades or Iraq overruns Kuwait again. What would happen if Iraq seized our pre-positioned M1s and M2s in Kuwait and destroyed the airfield before we could get our tankers into theater? We have M113A3 AFVs that weigh exactly the same as vulnerable road-bound five-ton trucks that can be turned into flaming wrecks by a mere burst of small-arms fire. But we take the tracked M113A3 (which can swim and protect our men from enemy fire by traveling cross-country) and throw it into the ocean to make reefs and keep the five-ton trucks, using the excuse that we don't have enough airlift. Certainly, if all we have available is 30- to 70-ton AFVs, we'll never be able to air-deliver enough fighting vehicles to give our light troops shock

action. Our enemies mount heavy cannon on almost anything that moves, while we make excuses and rationalize. How can we expect anything but another "Task Force Smith" in our future?

MIKE SPARKS
Fort Bragg, North Carolina

DON'T SELL THE MK 19 SHORT

This is a belated response to Mike Sparks' letter in the November-December 1994 issue of INFANTRY (page 4). Readers of that letter may have noticed that there is no mention of the Mk 19 grenade machinegun. There has always been a need for organic infantry direct-fire weapons. The use of combined arms integrating armor, artillery, and air support is essential to supporting the soldier engaged in conflict. But the infantry soldier must also have organic support weapons that are not subject to the deployability and maneuverability limitations of the combined arms.

In his letter, Sparks proposes the M40A2 106mm recoilless rifle (RR) as the shock-weapon solution. He labels the AT-4, LAW, 90mm RR, and M3 Ranger antiarmor assault weapon "ineffective shock weapons" with several limitations. He discounts the heavy machinegun and the TOW as lacking instantaneous shock effect, not working at close range, and not economical.

Not to discount any other weapons, I believe the least appreciated organic infantry direct-fire weapon and the solution to any shock-weapon need is the Mk 19. It can be vehicle-mounted or ground-mounted in various configurations. The Mk 19 with the HMMWV, combined with airlift, would quickly provide support anywhere on the battlefield. It is not necessary to bring back and adapt the 106 for a purpose the Mk 19 already serves. The 106 requires the use of a .50-caliber spotting rifle and must be adapted for night vision and thermal imaging devices. Clearly, the Mk 19 needs no spotting rifle and is already compatible with advanced sighting devices.

The greatest advantage of the Mk 19 lies in its firepower. It gives the unit a heavy volume of close, accurate, and continuous fire with the ability to deliver high-explosive dual-purpose (HEDP) and high-explosive (HE) ammunition. The M430 HEDP grenade can pierce armor up to two inches thick (at zero-degree obliquity). It can kill personnel within five meters of the blast and wound those within 15 meters. A maximum effective range of 1,500 meters for point targets and 2,212 meters for area targets makes the Mk 19 a formidable weapon. Its rate of fire is equally impressive with sustained fire at 40 rounds per minute, rapid fire at 60, and cyclic fire at 325 to 375.

The Mk 19 is a here-and-now weapon of recent manufacture with ammunition that can be adapted to a wide range of needs. I am sentimental toward the 106mm recoilless rifle; in fact, I would even love to see the "old" BAR return, but it is clearly yesterday's technology, compounded by old-age problems and ammunition. At ground level, we need more Mk 19s and less longing for the weapons of yesterday in solving the need for a shock weapon.

RONALD W. ALLEY, JR.
SFC, Massachusetts Army National Guard
Melrose, Massachusetts

FIRST INFANTRY DIVISION REUNION

The Society of the First Infantry Division (Big Red One), which is composed of soldiers who served in World War I, World War II, Vietnam, Desert Storm, during the Cold War and in peacetime, will hold its 79th Annual Reunion 6-10 August 1997 in Alexandria, Virginia.

For information, please contact me at 5 Montgomery Avenue, Erdenheim, PA 19038; telephone (888) 324-4733, FAX (215) 233-9381.

ARTHUR L. CHAITT
Executive Director

TACTICAL SOPs REQUESTED

In order to create a TACSOP library that students may use while at the Infantry School, the Tactics Division of the School is asking units from company through brigade level to provide copies of their tactical SOPs. Units wishing to participate in this project are requested to forward copies of their SOPs to:

Commandant
U.S. Army Infantry School
ATTN: ATSH-ATT
Fort Benning, GA 31905

For further information, call the Chief, Tactics Division, Combined Arms and Tactics Directorate, at DSN 835-5726 or commercial (706) 545-5726.

PROFESSIONAL FORUM

A Tool for Commanders

The Integrated Training Task Matrix

MAJOR JOHN M. SPISZER

The planning, preparation, and execution of training is a constant concern of Army leaders. Many of the problems are in the management of training at battalion level and below, chiefly due to the poor application of doctrine at company level and poor training preparation.

The Integrated Training Task Matrix is a tool for use at company level and below to help plan, prepare, and assess training. Its use fully incorporates the principles and doctrine in Field Manuals (FMs) 25-100, *Training the Force,* and 25-101, *Battle Focused Training.*

I was first introduced to this tool as a company commander in 1990 when FM 25-101 was being distributed to the field. My brigade commander, Brigadier General David H. Ohle, had adopted the matrix from a tool used in the 75th Ranger Regiment and then modified it during his tour as assistant division commander for maneuver, 1st Infantry Division. Now the Deputy Commandant of the Command and General Staff College, General Ohle recommends the matrix to students in the CGSC and the Pre-Command Course. My objective here is to present the methods, uses, and benefits of the matrix as a training management tool.

INTEGRATED TRAINING TASKS

____WEEKS OUT **WEEK ____**

COLLECTIVE TASKS	LEADER TASKS	INDIVIDUAL TASKS	DRILLS
DURING GREEN/AMBER CYCLE	DURING COLLECTIVE TNG	DURING COLLECTIVE TNG	DURING COLLECTIVE TNG
FUTURE TASKS WK	PRIOR TO COLLECTIVE TNG	PRIOR TO COLLECTIVE TNG	PRIOR TO COLLECTIVE TNG
	RETRAINING	RETRAINING	RETRAINING

SERGEANTS' TIME

At company level and below, using this matrix assists in the identification, preparation, and integration of the tasks to be taught at all levels during training. It helps focus the unit on critical training tasks instead of training events. At any given time, in accordance with the FM 25-101 planning cycle, the commander has seven matrices in use or development; each represents a week of training—the week just completed and six weeks ahead. The matrices are excellent tools for company training meetings and also as briefing aids during battalion training meetings and quarterly training briefings (QTBs) to the brigade commander (if he requires them from his company commanders). It is also useful in a commander's quarterly training guidance (one matrix per month, to provide initial focus), and as the basis of training assessment.

To make this tool work the commander must fully ground himself in FMs 25-100 and 101 and the unit's appropriate ARTEP

(Army Training and Evaluation Program) manuals and mission training plans (MTPs), especially to aid in task integration, at least until the fielding of the new Standard Army Training System (SATS), which promises to help the user with this process.

Filling out seven matrices may seem like a lot of work, but, once incorporated into the unit's current FM 25-101-based training management system, it saves time by better focusing the unit's training needs and efforts.

The following is a step-by-step rundown on how to fill out the matrix. This is a technique the user may modify to meet his own needs and the unit's unique requirements. Use of this tool can also result in numerous modifications and improvements as the user becomes more familiar with its benefits to training management and execution. The matrix has many purposes, and this example only provides a starting point.

In space 1, the commander notes the week of training (Week 0 is the week just completed, Week 1 is the coming week, and so on.). All entries should be made in pencil so that changes can be made as the training plan matures. Conducting company training meetings each Friday results in six matrices of future training and one for the week of training just completed. The commander prepares for his training meeting by putting together the initial draft of Week 6 and changing the numbers on the existing matrices. As Week 6 training approaches, each matrix takes shape through training meeting input.

Space 2 is the fiscal year training week—the first week in October is Week 1 and so on—which ties the matrix to the training week on the company's training schedules.

In Block 3, the commander lists the collective tasks on which his unit will train this week. This block should be used only during a training (green) or mission (amber) cycle, except as a reference tool. Training in the support (red) cycle is generally limited to individual or leader task training in preparation for collective training during mission or training cycles. For reference, the commander annotates the collective task in block 7 (future tasks) for which supporting individual or leader training is being conducted during a support cycle week. This helps integrate and focus the unit's training.

Identify tasks selected for training by using the FM 25-101 training management cycle. Annotate the task name straight out of the corresponding ARTEP or MTP manual. Although including the task number from the ARTEP manual is also helpful, it may be redundant if it is on the unit's training schedule. (My training schedules were based on these matrices and corresponding training meeting notes.) List only the critical tasks for the week. Try to stick to the METL, battle, or other supporting tasks that need to be emphasized (those that have been assessed as "untrained"). Listing every task a platoon may perform during training may result in a loss of focus. For instance, performing the mission *Defend* may incorporate seven or more collective tasks, but list only the tasks currently assessed as untrained or deficient, or tasks that are critical to the training. For a defense lane training event, the training assessment—conducted with the company's leaders—might identify the collective tasks of *Construct obstacles* and *Defend* from ARTEP 7-8 MTP for inclusion on the matrix. The remaining tasks do not appear on the matrix but are addressed in the events training plan. The focus of resources, evaluation, and so on, is on the tasks identified on the matrix.

Try to stick to the METL, battle, or other supporting tasks that need to be emphasized (those that have been assessed as "untrained").

This is an iterative group process. The tasks for training are driven from the top (METLs, higher headquarters training guidance) and, more important, from the bottom (unit leaders and evaluators identify the areas that require additional training). Modify and update these matrices at each training meeting using the input received from unit leaders during the company training meetings.

The leader tasks during collective training are those that are critical to the accomplishment of the collective tasks identified for training during this week. Usually, block 4 shows only one or two of the most critical leader tasks for each collective task. For instance, for the task *Construct obstacles,* the critical leader task might be *Direct installation/removal of a hasty protective minefield,* which is noted on the matrix. In addition, the leader tasks identified here and in blocks 8 and 11 can form the basis for the unit's officer and NCO professional development programs and leader opportunity training.

In block 5, the individual tasks during collective training are the same as block 4 for leader tasks. In the *Construct obstacles* example, this could include the individual tasks of *Employ field expedient early warning devices* or *Install/remove M16A1 antipersonnel mine.* In addition, the assessment of tasks identified is reflected in this block, as well as in blocks 9 and 12, in the NCO Leader Books. The matrix reflects only the most important tasks, as in the Leader Books (in accordance with Training Circular 25-30). The matrix and the Leader Books complement each other.

Block 6 (drills during collective training) is the same as block 5, but this example probably does not include any drills (in accordance with ARTEP 7-8 MTP Battle Drill-to-Collective Task matrix). It might if you designed the training plan or scenario to include reacting to contact or indirect fire (from ARTEP 7-8-Drill) during obstacle emplacement (and if your unit needs training on the task).

For these first four blocks—and the next two sets of blocks—horizontally aligning the tasks with each other across the blocks helps signify their integration. Other useful techniques include highlighting tasks assessed as untrained, underlining CTT (Common Task Training) or EIB (Expert Infantryman Badge) tasks as these events approach, annotating the METL task supported or the training event on the matrix (at the company level these are probably readily apparent), and adding a "resources required" column.

Block 7, Future Tasks, and the next three blocks are more difficult to under-

INTEGRATED TRAINING TASKS

_____WEEKS OUT (1) WEEK _____ (2)

COLLECTIVE TASKS	LEADER TASKS	INDIVIDUAL TASKS	DRILLS
DURING GREEN/AMBER CYCLE (3)	DURING COLLECTIVE TNG (4)	DURING COLLECTIVE TNG (5)	DURING COLLECTIVE TNG (6)
FUTURE TASKS WK (7)	PRIOR TO COLLECTIVE TNG (8)	PRIOR TO COLLECTIVE TNG (9)	PRIOR TO COLLECTIVE TNG (10)
	RETRAINING (11)	RETRAINING (12)	RETRAINING (13)

SERGEANTS' TIME (14)

stand. This is training conducted that week in preparation for other—possibly higher level, more integrated, usually collective—training planned for execution in the future.

In this block, annotate the critical collective tasks you will train on this week, or train only the supporting individual or leader tasks identified with that collective task, which prepares you for future training (see discussion on Block 3). Training individual and leader tasks associated with the task *Construct obstacles* or training on that collective task in this week could be preparation for the task *Defend* to be done in two weeks time during an upcoming training cycle or external evaluation. Or, the task may be *Defend,* on which you plan only walk/crawl training this week to prepare your unit for the future training. Next to the preparatory collective task, note the training week (from block 2) of the corresponding future matrix when the final collective task training is scheduled.

Blocks 8, 9, and 10 are completed using the same discussion as on Blocks 4, 5, and 6, but, again, these tasks are the individual, leader, drill tasks trained to prepare for a future collective training event or task in support of an identified collective task.

Identify the tasks and drills for retraining, and complete blocks 11, 12, and 13 during company training meetings. They are blank on the Week 6 matrix, at least until the start of the company training meeting at which you introduce the Week 6 matrix. Tasks that go into these blocks include identified leader, individual, and drill tasks that the unit has not performed to standard during Week 0 training, or previous Week 0 training.

There is no retraining block for collective tasks, because the retraining on critical collective tasks should be scheduled and completed during the week of execution. Training is conducted to standard when it is performed; that is, the immediate retraining is done during the week of execution and—in accordance with FM 25-101—retraining time is allocated in the training plan or schedule.

No critical collective task should require retraining; sustainment training falls into the upper blocks as a scheduled event. At the completion of a successful training event, however, certain supporting individual, leader, and drill tasks may be assessed "need practice" or "untrained." Identify these weaknesses during unit after-action reviews and company leaders discuss them as requiring retraining during the review of the just-completed Week 0 training in the company training meeting. Then review these tasks to see if they are already scheduled for future training; if not, add them to these blocks during the week of training that they best support the training already planned.

Block 14, which includes blocks 9, 10, 12, and 13, makes up what the Army commonly refers to as Sergeants' Time. Noncommissioned officers are responsible for training the individual and low-level collective tasks or drills (squad level). NCOs are also responsible for conducting training before a future collective event or as retraining. Identifying these four blocks as Sergeants' Time gives battle focus to a program that traditionally becomes unprepared hip-pocket training, CTT, inspections, counseling, or wasted time.

This designation of specific tasks for

Sergeants' Time, during company training meetings (and subsequently reflected on training schedules), ensures three results: The NCOs are notified of tasks they must train ahead of time so they can adequately plan and prepare to conduct the training; training accomplished by the NCOs is battle focused and based on tasks identified as critical to support the unit's METL and battle tasks; and tasks requiring more work receive the proper focus and are retrained to standard.

Again, these blocks complement the Leader Book and should contain tasks that the sergeants have identified and are tracking in these books. Inclusion in the matrix emphasizes their upcoming assessment and the subsequent update of the Leader Book. This should assist in the bottom-up feedback (already prepared for review in Leader Books) that occurs in the company and platoon training meetings. In addition, these blocks provide the basis for opportunity training that is separate from scheduled Sergeants' Time. Unscheduled training opportunities now have identified tasks requiring training and preparation.

Filling in the blanks on the matrices is just a drill; what is important is the way the matrices are used. This tool can also be used for several different purposes and different audiences:

Company Training Meetings. The primary purpose of the matrices is to augment and provide focus to the company training meetings. The first major part of the meeting is to review the past week's training. Use the Week 0 matrix as a guide for unit review or assessment. Instead of focusing on an event, the discussion focuses on the tasks performed during the event; this helps in the assessment process of determining whether a task was trained (T), needs practice (P), or is untrained (U). A review of training not conducted during Week 0 can result in an examination of future matrices to see where best to make it up through examining the integration of future training. Put missed training back in where it fits best, based on the plan already in hand (tasks to be performed on the matrices). Deal with tasks that require retraining in the same fashion.

Examine matrices for future weeks simultaneously with that section of the training meeting notes (notes per FM 25-101, no modification is necessary since the matrices augment and don't supplant previous guidance). Again, the focus is on tasks rather than events. One drawback is that the matrices tend to generate more in-depth discussions of the unit's training assessment and needs instead of reviewing upcoming events and resource requirements. These discussions make it tougher to meet a one-hour standard, but the results are worth the extra time.

Another major benefit is that proper task integration is built into the training plan. In addition, preparation for training (*Future Task* blocks) is incorporated into training plans and schedules so that the unit is better prepared to conduct major collective training in the green cycle. The critical preparatory steps of training leaders and individuals are emphasized, discussed, and planned.

Quarterly Training Briefs. Although not required at brigade level by current doctrine, company commander QTBs to brigade commanders are becoming more frequent. In the 1st Brigade, 25th Infantry Division, all company commanders briefed their training plans for the upcoming quarter in a modified QTB format. The principal briefing slides are training calendars and matrices. Since the QTB (ideally) is six to eight weeks before the quarter, matrices are in rough form. Only one matrix is prepared for each month (unless the unit is in a training cycle period), and the calendar and matrix are shown side by side. Commanders discuss the training event and the collective and leader tasks that pertain to it; the first sergeant discusses the individual and drill tasks. The slide immediately preceding the calendars and matrices is the company METL assessment by platoon. Using this technique, the brigade commander can tell at a glance whether the planned training is in accordance with the METL and his guidance.

No critical collective task should require retraining; sustainment training falls into the upper blocks as a scheduled event. Again, the focus is on tasks rather than events.

The preparation of these matrices for the brigade QTB provides the rough draft for the weekly matrices used in the company training meetings. Furthermore, the QTB requires the commander and the unit leaders to plan training over a longer term. The short-range training plan cannot be ignored at company level; it must focus on the unit's METL, assessment, and training tasks, not just events. In addition, a unit's professional development program for the quarter falls right out of the leader task blocks briefed at the QTB, ensuring that these programs keep the battle focus on upcoming critical training tasks.

Company Quarterly Training Guidance. Again, quarterly training guidance is not required by doctrine, but some company commanders do issue it. Major contents may include the unit training assessment, priorities for the next quarter, training calendars, training preparation suspenses and requirements, and the QTB matrices, either in draft or final.

The QTB matrices provide the answers to soldiers' questions on what the unit will do during training before the publication of the training schedule. They also augment the training calendars and provide direction and focus for the unit as it conducts business, which helps keep the unit on a steadier path.

Evaluation Plan. The matrices are ready-made as a basis for the training evaluation plan. By going through the steps in determining the critical tasks the unit needs to train to standard, you highlight the tasks on which you want your observer-controllers (OCs) to focus. This gives them the details of what is important to your unit, instead of having them worry about a huge stack of pages copied from the MTP. Although the tasks on the matrix for that week are probably not everything you want evaluated, they are the most important things.

Furthermore, in the absence of a formal evaluation plan (such as Sergeants' Time) the matrix serves as informal evaluation guidance to unit leaders and notice of the minimum updating requirements for Leader Books. The matrices desig-

nate tasks on which you expect input during company training meetings. There is no reason a platoon leader or platoon sergeant cannot discuss his platoon's training status on tasks performed that week. If the task is on the matrix, feedback on the results of training is expected during the training meeting.

Platoon Training. Platoon leaders can also use the matrix format for planning and conducting their training as well as the platoon training meetings. If the time available allows the platoon leaders to completely plan and conduct their own training, provide guidance and resources and let them develop a plan with their subordinate leaders.

This plan is backbriefed to the commander, the executive officer, and the first sergeant on the basis of the platoon's proposed training schedule and matrix. Use of the matrix in a backbrief allows a cross-check to ensure that tasks are properly integrated and that the focus of the training is based on the commander's experience and assessment of his platoons. Also, a platoon leader's matrices and training schedule provide enough detail for inclusion in company training schedules so that they accurately reflect what will occur and when. Training schedules can then inform soldiers of what is really going to happen, not just "platoon training."

In addition, when something disrupts the planned training, it is useful to determine available resources, provide guidance, and adjust training by allowing the platoon leaders, if they are properly trained to do so, to develop a new or modified plan using the matrix technique. This gives the junior leaders, those most familiar with their unit's needs, an opportunity to come up with training that fits. The backbrief, with the proposed schedule and matrix, ensures that training plans do not become some sort of adventure training (the kind platoon leaders often want to do) that is not a genuine unit training requirement.

The real benefit is not in allowing the platoons to plan their own training and alleviate some of the commander's burden (although this can be especially useful when disaster strikes on a Friday before scheduled training), but in developing the junior leaders. Using the matrix demands that the platoon leaders and NCOs thoroughly understand how to plan and prepare for training—how to integrate tasks, conduct preparatory training, and identify what to evaluate and how to assess their training. This use of the matrices is one of the most beneficial means because it is a ready made tool for teaching junior leaders how to train and how to conduct training management, planning, and preparation. This tool also helps the unit plan, prepare, and conduct opportunity training; establish, maintain, and use Leader Books; and prepare the unit's professional development programs.

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It has proved highly beneficial to many company commanders and is fully consistent with training doctrine as put forth in FMs 25-100 and 25-101. The matrix and the process involved in its preparation help maintain the link between QTBs; short-range and near-term training plans; conducting training meetings; preparing training schedules; and preparing, executing, and evaluating training.

The use of these matrices assists in the development of training that is consistent with the Army's Principles of Training. In fact, it directly relates to the following principles:

Train as you will fight. The matrices allow the commander to develop an initial training plan. The tasks selected outline the training scenario and are based on the unit's METL and training assessment. Training scenarios or lane training events are developed to ensure consistency with the tasks that most need to be trained.

Use appropriate doctrine. The use of this tool is based on doctrine. It helps the commander plan, prepare, execute, and assess his training. It requires a thorough understanding of task integration, performance-oriented training, sustainment training, and multiechelon training techniques. Leaders must understand how to use and apply their unit's ARTEP and other training-related manuals.

Use performance-oriented training. Tasks are identified early to the unit's leaders, which allows for the dissemination of tasks, conditions, and standards. This technique helps ensure that training is focused on tasks instead of events, and that it is performed to standards instead of time.

Train to sustain proficiency. The matrices help focus the unit on METL tasks, including the supporting individual and drill tasks during Sergeants' Time. Planning for preparatory training and retraining on tasks is not forgotten.

Train using multiechelon techniques. This is one of the greatest benefits of this technique. Proper task integration by the unit leaders; the identification of the related collective, leader, individual, and drill tasks; the conduct of appropriate preparatory training; and the execution of the training with the simultaneous focus on the four echelons of tasks are greatly enhanced by this technique. The task is not just to construct obstacles but also to emplace mines, react to indirect fire (if in the training scenario), and supervise minefield emplacement.

The integration of tasks in the planning and preparation phases of training assures multiechelon execution, which helps make the best use of scarce resources and best sustain unit proficiency.

The Integrated Training Task Matrix can help the commander turn training doctrine into effective training. Once firmly established as a routine planning tool, it becomes easier to use, faster, and more effective. Then leaders can spend more time on the preparation and execution of the training itself. The result is a better trained, more combat-ready unit.

Major John M. Spiszer used this technique as a company commander in the 3d Battalion, 22d Infantry, 25th Infantry Division, where he also served as assistant battalion S-3 and assistant brigade S-3. He is a 1984 graduate of the United States Military Academy and holds a master's degree from Central Michigan University.

Tobacco Use
And Its Effects on Readiness

COMMAND SERGEANT MAJOR SAM B. SPEARS, III

Tobacco use by soldiers is the number one *preventable* detriment to combat readiness. Leaders can increase overall unit readiness by reducing their soldiers' use of tobacco products.

As a young soldier 25 years ago, the only risks I was ever briefed on in regard to smoking involved cancer and emphysema. The standard procedure was to use scare tactics, showing black lungs and people with cancerous lips and gums. But youth is forgiving, and when you're 19, you feel bullet-proof and think cancer and emphysema are diseases for old people, so those tactics don't usually work.

But I did want to be a good soldier—the best soldier—and if someone had addressed tobacco in terms of readiness factors, I may have listened. So I would like to discuss the importance of stopping tobacco use in relation to the following readiness factors:

Stamina. Nicotine accelerates the accumulation of plaque in the coronary arteries, which limits blood flow and oxygen to the brain and the extremities.

Tobacco destroys the platelets in your blood, which interferes with the healing of wounds.

A study of 419 airmen during their initial six weeks on active duty showed that the subjects who did not smoke performed better on the 12-minute running test at the beginning, middle, and end of the training course. It also showed that the more a subject smoked the worse he performed. Furthermore, nonsmokers showed the greatest gains in performance as a result of training. The authors of the study concluded that "a person never could achieve maximum performance or respond completely to training as long as he continued to smoke any number of cigarettes."

If you can pass your two-mile run or foot march while smoking, imagine what you could do if you *didn't* smoke. Why accept less than the best effort from yourself? When you're on the battlefield, you'll need every advantage available to you. Your stamina and endurance will improve greatly with increased blood flow and oxygen capacity after you're tobacco-free, and you'll be able to last longer under stressful conditions.

Healing of Wounds. Tobacco destroys the platelets in your blood, which interferes with clotting and healing. Your ability to recover from a battlefield or training-related injury will therefore be impaired. We already have enough empty slots in units without more from increased recovery time and delayed return to duty. Combat soldiers want to return to duty as soon as possible so they can be with their comrades when they are in harm's way. Leaders cannot fully count on wounded tobacco users, who may be a loss to the mission.

Cold Weather Injuries. Any soldier who has been stationed in or deployed to a cold weather region knows the hazards associated with tobacco use. In cold weather, tobacco causes a marked reduction in blood flow to the extremities. This constriction of the capillaries in the hands and feet greatly increases the risk of frostbite. The chain of command is forced to intensify overwatch of tobacco users who are more prone to cold-weather injuries. Frostbitten soldiers become a liability to the unit and to themselves.

Night Vision. The same vasoconstriction that causes susceptibility to cold injuries also affects night vision. On the modern battlefield, not every soldier will have high-tech night vision devices, and unaided night vision will be of the utmost importance. Tiny capillaries that feed blood to the rods, cones, and retina of the eye help a soldier see during periods of limited visibility. Tobacco use causes immediate constriction of these blood vessels and leads to a reduction in a soldier's night vision. The outcome affects his ability to engage enemy targets and the overall security of the unit.

Tobacco use causes immediate constriction of the blood vessels of the eye and leads to a reduction in a soldier's night vision.

Hand-Eye Coordination. The nicotine in tobacco causes fine muscle tremors that no amount of determination can control. In today's highly lethal force, "If you can see it, you can hit it; and if you can hit it, you can kill it." Therefore, when tobacco use affects gunnery, it is of great concern to leaders. A soldier who

has been using tobacco cannot hold the cross-hairs on the target because of these fine motor tremors. This greatly limits the unit's stand-off kill capability. (It is ironic that many smokers claim they smoke so they can relax.)

Overall Injuries. Long-term studies, both military and civilian, have concluded that those who use tobacco are injured three times more often than those who don't. These injuries are not from accidents resulting from a driver losing control while lighting a cigarette, or a soldier tripping over a footlocker while tilting his head back to put a pinch of tobacco between cheek and gums. Tobacco users actually have a greater incidence of lower back injury, shin splints, and stress fractures, just to name a few. This, along with their prolonged recovery time, only serves to exacerbate the problems unit leaders face. Cigarette smokers use more sick leave and health benefits and have more occupational accidents and injuries and higher rates of absenteeism than nonsmokers. These associations account for sizable cost for military and civilian employers alike.

Furthermore, when comparing the healing rates of smokers and nonsmokers, research shows that smoking inhibits the healing of fractures. Smokers in the study took an average of 268 days before returning to full weight-bearing without pain; nonsmokers took an average of 159 days—or 40 percent less.

Military studies of basic combat training suggest that smoking—in addition to past injuries, low levels of physical fitness, and greater amounts of running—is associated with higher injury rates. Before training, 303 men (average age 19 years) were evaluated using questionnaires and measurements of physical fitness. The subjects were followed over 12 weeks of training. Physical training was documented daily, and injuries were determined by review of medical records for every trainee. The most common injuries were muscle strain, sprains, and knee overuse conditions. A number of risk factors were identified, including age, smoking, previous injury, low levels of previous occupational and physical activity, low frequency of running before entering the Army, flexibility, low physical fitness on entry, and unit training levels (high running mileage).

In cold weather, tobacco causes a marked reduction in blood flow to the extremities, and frostbitten soldiers become a liability to their unit.

Yet another study evaluated a light infantry unit and followed it throughout one year of infantry training and operation. Fifty-five percent of the soldiers experienced one or more injuries. Eighty-eight percent of the injuries were training related conditions that resulted in 1,103 days of limited duty. Lower-extremity overuse injuries were the most common type documented. Fractures accounted for the greatest number of days of limited duty. Risk factors for training-related injuries identified by this study were cigarette smoking, high percentage of body fat, extremely high or low body mass index, low endurance levels, and low muscular endurance levels (as evaluated by performance on sit-ups). It was determined that smoking and low endurance levels were independent risk factors for training injuries. In other words, if you smoke you get hurt more.

Many soldiers think using smokeless tobacco is safer, or they use it to taper off from cigarettes, but they are actually placing themselves at greater risk. Nicotine is absorbed more rapidly through porous tissues in the mouth than through inhaled smoke, resulting in a stronger addiction. The tobacco leaf also generates heat through the chemical properties of nicotine, and the plug burns away at delicate, porous tissue in the mouth and throat. Gumlines recede and become a hotbed for infections. With all the deployments to such countries as Rwanda, Somalia, and Haiti, the increased chance for infections alone makes this an unacceptable risk.

TIPS FOR QUITTING TOBACCO

- **Drink lots of water.**
- **Have substitutes on hand—cinnamon sticks, gum, hard candy.**
- **Eat fresh fruits.**
- **Expect your body to react favorably.**
- **Counter weight gain by increasing exercise and watching high-calorie and high-fat substitutes for tobacco. (Actually, weight gain occurs only in about 25 percent of cases.)**

In addition, the sugar that is added to the tobacco increases tooth decay and creates a hygiene problem. Chemical burning from nicotine also starts pre-cancerous lesions on the side of the tongue, jaw, and throat along with the roof of the mouth—wherever the plug of tobacco comes into contact with tender tissue.

Another excuse for chewing tobacco is to stay awake, but all the dangers of caffeine cannot compare to the serious health hazards of nicotine. In addition, there are the biological minefields created when snuff and tobacco users spit onto the pavement or ground, or into cups that the people around them must then endure. Spitting continues to spread germs, causing more illness.

The nicotine in tobacco causes fine muscle tremors, which affect gunnery.

Baseball players, like soldiers, contend that smokeless tobacco improves their playing by helping them relax, concentrate, and remain alert. Yet in dental studies of baseball players, those who used smokeless tobacco had lower mean batting averages and lower fielding percentages. They also experienced a significantly higher rate of leukoplakia (white patches on the mucous membranes of tongue and cheek), recession of the gums, and loss of tooth structure.

Tobacco continues to drain the Army's human resources, and we can no longer afford its debilitating effects. I finally quit smoking and chewing, after 30 years of heavy use and now perform to my maximum. As I coach and teach young soldiers and leaders, I present the facts and the choice they can make in the way it affects them the most—in terms of combat readiness.

Command Sergeant Major Sam B. Spears is command sergeant major of the U.S. Army Infantry School.

Targeting
For the Maneuver Task Force

LIEUTENANT COLONEL RICHARD P. McEVOY

With the coming Force XXI technological advances, maneuver commanders and staffs may need to "upgrade" the way they decide on the employment of their units and weapon systems. The targeting process holds some interesting prospects. Every soldier on today's battlefield should be considered a "collector." Soldiers under Force XXI will have an even greater ability to detect enemy targets and provide terminal guidance for attack mechanisms, which is the essence of targeting. To make the most of these abilities, commanders and staffs will have to clearly understand how to link targeting to the decision-making process.

Field Manual (FM) 6-20-10, *Tactics, Techniques, and Procedures for the Targeting Process,* does a good job of describing the targeting process but does not clearly explain how a maneuver commander should apply it. I offer here an approach to the targeting process that may help maneuver units incorporate targeting into the existing decision-making process.

Organizing Your Thoughts

Although FM 6-20-10 was written by the Field Artillery School, it has a much broader application than many realize. The targeting process is a way of organizing your thoughts to determine which enemy targets to attack (decide), how to find those targets (detect), and how to attack them (deliver). The manual states that targeting is based on the friendly scheme of maneuver or tactical plan, but the targeting process also helps develop and analyze a friendly course of action (COA).

A starting point for maneuver commanders and staffs is to think of the enemy as a system of targets. As described here, a target is not just a field artillery target. It is any enemy unit, weapon, or facility; each enemy platoon, mortar section, supply point, and air defense system can be considered a separate target.

The second step is to prioritize these targets. This requires an analysis of the importance of each target as it relates to the successful accomplishment of the friendly mission. Identifying the most important target is often the decisive point of the operation.

The third step is to think of your task force as a system of detectors and attack mechanisms. The detectors' job is to find enemy targets early enough for the attack mechanisms to defeat these targets at the designated place and time.

Soldiers under Force XXI will have an even greater ability to detect enemy targets and provide terminal guidance for attack mechanisms, which is the essence of targeting.

Incorporating the Process

The maneuver commander is responsible for targeting; it is not something the fire support officer (FSO) can do alone. Once the commander decides on the effects he wants to achieve against particular targets, the staff "weaponeers" must determine the best means of achieving those effects. (The "weaponeers" are the staff officers who plan or coordinate lethal and nonlethal attack assets: S-3 for maneuver, FSO for indirect fires, air liaison officer for close air support, S-2 for electronic warfare, PSYOPs team chief for PSYOPS, and so on.) This may mean attacking with field artillery, close air support, maneuver forces, mines, electronic warfare, psychological operations, or other capabilities available to the task force. The FSO cannot possibly plan for and coordinate all assets required to decide, detect, and deliver on all required enemy targets. To be effective, targeting needs command emphasis and staff integration.

The commander and staff can easily incorporate targeting into the estimate process. Although FM 6-20-10 talks about the decide-detect-deliver process, it is describing the sequence of execution. During planning, however, the commander or staff must first *decide* which types of targets to attack, then determine how they will *deliver* the attack on these targets, and finally determine how to *detect* the targets before the attack. Hence, it is logical to follow a decide-deliver-detect process during planning (Figure 1). The following provides some details on how to integrate the targeting process.

Mission Analysis. To help see the enemy as a system of targets, the S-2 develops a list of high-value targets (HVTs) during mission analysis. HVTs are the assets the enemy commander must have for the successful completion of his mission. The list must be detailed enough that the commander, S-3, FSO, and others can understand the capabilities of these targets. Figure 2 shows an example of an HVT list. The S-2 should brief the list during the mission analysis briefing,

setting the stage for the *decide* function of targeting.

COA Development. During COA development, the commander and staff prioritize targets and make initial decisions on how to attack them. Although FM 6-20-10 implies that high-payoff targets (HPTs) are determined during wargaming, the commander and staff should *decide* on tentative HPTs during COA development. HPTs are those HVTs that must be acquired and successfully attacked if the friendly commander's missions are to succeed. A course of action is normally sound if it focuses attacks on enemy targets whose defeat will lead to the success of the friendly mission. Therefore, it makes sense to select initial HPTs during COA development.

With a good understanding of enemy doctrine, the terrain, and the capabilities of available collection assets, the S-2 can anticipate where attacks will achieve maximum effects on particular HPTs.

Targets must be selected on the basis of the mission, the commander's intent, and the commander's planning guidance, as articulated at the conclusion of the mission analysis brief. The selection of the best assets to use in attacking a particular enemy target is based on a combat power analysis and damage requirements. This will help ensure the most efficient use of assets.

A logical first step is to determine how to *deliver* the attack on the highest priority target or decisive point. For example, during an attack of an enemy strongpoint, the most critical target to ensure the success of the unit mission may be the enemy platoon covering the selected breach point. This becomes the tentative scheme of maneuver for the main effort.

The next step is to analyze other enemy forces (HVTs) to determine their ability to interfere with or prevent the success of the main effort. These HVTs now become HPTs, or targets that friendly assets must defeat to accomplish the mission. Friendly assets allocated against these targets are supporting efforts. Enemy HVTs that cannot influence the main effort do not become HPTs, and the staff should not allocate friendly assets against them.

This approach crafts a scheme of maneuver that begins with the main effort and establishes clear links to supporting efforts. It sets the conditions for a successful attack at the decisive point.

The goal during COA development is to *decide,* in order of priority, which enemy targets must be attacked to ensure friendly unit success, the degree of damage required for each target, and how to *deliver* the attack on these targets. Figure 3 is a sample HPT list. This list is a tool that the staff can use to help prioritize HPTs and the degree of damage required for each.

COA Analysis. During COA analysis (wargaming), the commander and staff fine-tune the priority of targets and attack mechanisms. They also determine which detection systems will find specific targets. Units normally use the action, reaction, counteraction methodology to gain a clear and common vision of how the battle might unfold. As they mentally fight each COA, the staff members refine HPTs and attack assets to ensure success; that is, refine the *decide* and *deliver* functions.

With a good understanding of enemy doctrine, the terrain, and the capabilities of available collection assets, the S-2 can anticipate where attacks will achieve maximum effects on particular HPTs. Based on the S-2's recommendation and his understanding of friendly weapon systems, the S-3 determines the location for attacks on HPTs, and these locations become targeted areas of interest (TAIs). The S-2 and S-3 must be realistic in the placement of the TAIs. They must be sure that the unit has the capability to detect and attack at the required distances.

Enemy HVTs that cannot influence the main effort do not become HPTs, and the staff should not allocate friendly assets against them.

This is also a good time for the S-2 to reiterate the description and capabilities of the HPTs. This allows the weaponeers to make better decisions on the assets required to defeat discrete HPTs (BRDMs, traveling in a certain formation, with a certain type of air defense artillery coverage).

It now becomes important for the S-2 to conduct specific collection planning. He must determine locations where the task force's collection assets can *detect* the HPTs early enough to allow specific attack assets to defeat the HPTs at designated TAIs. The targeted areas for col-

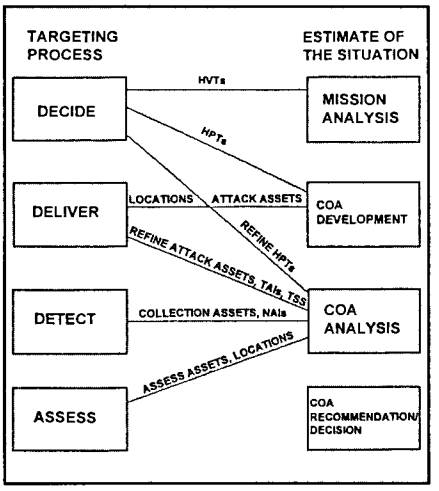

Figure 1

HIGH VALUE TARGET LIST

TARGET	CAPABILITIES	LIMITATIONS
CLF TEAM	HIGHLY MOBILE HARD TO DETECT EXPERT MARKSMAN OUT TO 500m CARRY SMALL ARMS KNOW TERRAIN MAY HAVE LINKS TO VILLAGES	NEED FREQUENT RESUPPLY NONSECURE COMMO LIMITED NIGHT VISION LITTLE ACCESS TO VEHICLES
SA-14 TEAM		
82mm MORTAR TEAM		
BSP		

Figure 2

HIGH PAYOFF TARGET LIST

PRIORITY	TARGET DESCRIPTION	LOCATION	DAMAGE REQUIRED
1	BATTALION SUPPLY POINT	VE 123456	DESTROY/CAPTURE OR ISOLATE FROM CLF
2	82mm MORTAR TEAM	VE 234567	DESTROY/SUPPRESS
3	SA-14 TEAM	VE 345678	DESTROY/SUPPRESS

Figure 3

ATTACK GUIDANCE MATRIX

TARGET	LOCATION	DETECT	DELIVER	ASSESS	TSS REMARKS
BSP	VE123456	SCOUT PLT ENGR SQUAD W/MINE-SWEEPERS	CO A	CO A	CO A RESPONDS W/1 PLT, W/1 HR OF SCTS FINDING CACHES, CO A DESTROYS IN PLACE OR SPT PLT BACKHAULS TO BSA
82mm MORTAR TEAM	VE234567	AN/TPQ-36	COUNTER-FIRE W/ 105mm	CO B	CUE IS LESS THAN 2 MIN OLD, FSO CLEARS FIRES, CO B MOVES TO SEAL AND SEARCH AREA.
CRP	RT RED	NAI 1 SCOUTS	TAI 1 CO A	CO A	AT NAI 1 SCOUTS CONFIRM CRP IS MOVING NORTH ON RT RED
CARNIS	VE345678	NAI 2 TM VILLAGE	PSYOPS TM	CI/ PSYOPS	VILLAGE IS NOT OPENLY HOSTILE. PERSUADE LOCALS THAT U.S. PRESENCE WILL PROVIDE LONG-TERM BENEFITS

Figure 4

lection assets are named areas of interest (NAIs). Once the S-2 determines when specific HPTs will enter the NAIs, he can identify the signatures that he expects to see at the NAIs. This provides the S-2 with the information he needs to plan the best assets to detect the HPTs at these NAIs.

These tasks demand that the weaponeers have a good grasp of time-distances factors (the time required to bring the effects of the attack assets to bear on the TAI). The S-2 must have a thorough understanding of the capabilities of the selected collection assets. Clearly, this process leads to the formation of a well-developed reconnaissance and surveillance plan and decision support template.

There are two other requirements for the staff during wargaming. The first is to determine target selection standards (TSSs). TSSs are the time and accuracy requirements necessary to launch an attack on an HPT. For example, in order to initiate an indirect fire attack on dismounted infantry, the standard might be direct observation on the enemy within the past two minutes. The standards described here have a slightly different twist from that described in FM 6-20-10. What is important, however, is that the TSSs provide enough guidance for everyone to clearly understand the standards for launching an attack on various targets.

The second requirement is to determine whether there is a need to assess the results of the attack on an enemy target. If there is an assessment requirement, the staff must determine what assets will conduct the assessment and when it will occur.

Figure 4 provides an example of an attack guidance matrix, which helps the staff record the results of the wargame as it applies to targeting. If time permits during wargaming, the staff can also determine contingency means of attacking HPTs. These contingencies might require the use of the reserve or a branch from the original plan. Again, these wargaming tasks tie directly to the formation of a well-developed decision support template.

There is a clear connection between the* decide-detect-deliver *process of targeting and the* find-fix-finish *process of search and attack operations.

COA Recommendation. After wargaming, the staff must recommend the best COA to the commander. Keeping the targeting process in mind, an important measure of any COA is how efficiently the friendly unit detected and delivered on selected HPTs. This efficiency can be measured in terms of time, terrain, loss of friendly assets, certainty of target destruction, and end state of friendly forces after attacks on HPTs. All of this information will come from a thorough wargaming session.

DECIDE	DETECT	DELIVER	
	FIND	FIX	FINISH
BSP (VE123456	SCOUT PLT W/ ENGINEER SQUAD (NAI 1)	CO A (ISOLATE)	ENGINEER PLT W/100 BLOCKS C4

Figure 5

Finally, there is some difference of opinion as to whether targeting has any useful application during low-intensity conflict (LIC). FM 7-20, *The Infantry Battalion,* describes the *find-fix-finish* concept for search and attack operations during LIC operations. As shown in Figure 5, there is a clear connection between the *decide-detect-deliver* process of targeting and the *find-fix-finish* process of search and attack operations.

A commander first *decides* which specific targets to attack (using the methodology described above). *Detecting* these targets is the same as *finding* the targets. *Delivering* an attack on LIC targets normally requires assets to *fix* and *finish* the targets.

Targeting that is integrated into the estimate process can help the staff with a logical planning sequence to develop and analyze courses of action. The targeting process helps the commander and his staff organize their thoughts as they wrestle with the best way to beat a complex enemy. Thinking in terms of "detectors" and "attack mechanisms" may also help maneuver commanders and staffs determine how to use the advanced technology that will be available under Force XXI.

Lieutenant Colonel Richard P. McEvoy served as an observer-controller and command group executive officer at the JRTC and now commands 2d Battalion, 87th Infantry, 10th Mountain Division. He previously served in the U.S. Southern Command, in the 9th Infantry Division, and in the 7th Special Forces Group. He is a 1980 graduate of the United States Military Academy.

Brigade Targeting

LIEUTENANT COLONEL WILLIAM E. HARNER

One of the most significant lessons the 1st Brigade, 101st Airborne Division, learned on its first visit to the Joint Readiness Training Center (JRTC) was the need to develop a targeting process for our task force. To a unit challenged by the tenacious opposing forces, a targeting process is essential. It ensures that all battlefield operating systems (BOSs) are synchronized and focused on defeating the enemy at the decisive point of the battle. In training a brigade battle staff, the targeting process is second in importance only to the tactical decision-making process.

The brigade learned what targeting is, how to conduct the targeting meeting, and what the brigade battle staff does with the resulting information, analysis, and decisions. We used several key training events to develop and improve our brigade targeting techniques—a division command post exercise, the 101st's battle command training program (BCTP), the leader training program sponsored by the JRTC, and finally a return trip to the JRTC.

Targeting is consciously focusing all lethal and non-lethal systems on the enemy. Field Manual (FM) 6-20-10, *Tactics, Techniques, and Procedures for the Targeting Process* defines it as "the process of identifying enemy targets for possible engagement and determining the appropriate system to capture, destroy, degrade, or neutralize the target in question."

Frequently, either targets cannot be serviced by systems within the brigade task force or they are outside the brigade's area of operation. These targets are nominated to higher headquarters for consideration at the division targeting meeting. The ultimate objective of targeting is a prioritized list of friendly force actions that disrupt, delay, or limit the enemy's initiative and activities on the battlefield that may interfere with brigade operations.

Targeting must be a collective effort by the key leaders of the battle staff to reexamine the commander's intent, resynchronize the tactical plan, refine both the priority intelligence requirements (PIRs) and the high-payoff target list (HPTL), and review and assign specific responsibilities for potential targets throughout the unit's area of influence. The key word is *resynchronization*—the resynchronization of the brigade fight. After an operations order (OPORD) or fragmentary order (FRAGO) is issued, it is the only collective process the staff uses in which all elements of the BOSs are focused and in concert with one another.

In training a brigade battle staff, the targeting process is second in importance only to the tactical decision-making process.

Targeting is the maneuver force commander's process, in which leaders of the battle staff participate. The principal advisors to the commander on targeting are the brigade fire support coordinator (FSCOORD) and fire support officer (FSO). The rest of the battle staff must therefore have a thorough knowledge of how these two advisors think, specifically the targeting methodology of *Decide, Detect,* and *Deliver.* These three provide an active and responsive framework that enables fire supporters to see the battlefield and kill the enemy.

After the intelligence preparation of the battlefield, mission analysis, and target value analysis are conducted or updated for an operation, the commander's intent for fire support is given, and this is the key. In an ordinarily target-rich environment, the intent provides priorities for the engagement of targets. This is essential because of the limitation of time, the availability of engagement systems, and ammunition constraints.

Afterward, the three *Decide* products are prepared—the HPTL, the attack guidance matrix, and the collection plan. It is critical that all the members of the battle staff know what these products are and what they mean. They clearly communicate the commander's intent on what, where, when, and how targets are to be acquired and attacked.

The *Detect* function is the aggressive development and execution of the collection plan. It is essential to conduct a crosswalk between the PIRs, the HPTL, and the collection plan for each phase of the operation. In almost all cases, there should be a direct correlation between these three elements. The brigade S-2, on the basis of his experience and knowledge of the enemy, recommends to the commander the PIRs for the mission. The PIRs change and focus on indirect fire systems that can affect friendly units on the ground. The HPTL and the collection plan must follow the change in priority.

Finally, the collection plan should include a well-thought-out battle damage assessment (BDA) procedure and should be refined at each targeting meeting. If a target is serviced because it is important to *your* success, it is probably important to the enemy's success as well. Therefore, having a BDA on an engaged target can provide insight into changes in the enemy's most probable course of action.

The *Deliver* function is sending rounds down range and putting steel on target or, in the case of non-lethal systems, jamming the enemy's command, control, and communications systems. Through the completion of an attack guidance matrix in the *Decide* function, units already know the desired target effects—destruction, neutralization, or suppression—and the type of unit that will engage the target—artillery, mortar, or EH-60 Quickfix for jamming. Therefore, the *Deliver* function should be instantaneous upon identification of the target.

In 1st Brigade, we have two types of targeting meetings—deliberate and hasty. Our SOP calls for a targeting meeting immediately after the detailed wargaming of the course of action the commander selects at the decision briefing of the tactical decision-making process. The BOS representatives focus on the targeting meeting taskings in their annexes of the OPORD, and the S-3 puts unit taskings in the main body of the order.

During periods between OPORDs or major FRAGOs, a targeting meeting is conducted at least once a day, usually after the commander's update in the morning. It is ideal to conduct the meeting inside the brigade tactical operations center (TOC) in the vicinity of the plans area. This enables all the key players to stay close to their radios, telephones, and desks. But with the organized chaos of current operations, especially at the JRTC, we had great success conducting the meeting in the direct support artillery battalion TOC, hosted by the FSCOORD. There were fewer distractions from the battle staff's most important meeting; the FSCOORD had all of his key players attending; and we were only a few hundred meters from the brigade TOC.

The principal advisors to the commander on targeting are the brigade fire support coordinator and fire support officer.

After the deliberate targeting meeting became routine in our TOC, the hasty targeting meeting seemed natural for the staff. A hasty meeting is conducted on the basis of targets of opportunity identified in the commander's critical information requirements or on the HPTL. The purpose of the meeting is to focus the entire battle staff and the assets the members control onto the target area of interest that must be correctly identified and destroyed.

Any member of the TOC can initiate the meeting, then the brigade executive officer (XO), S-3, or battle captain takes charge. For example, during the 101st's BCTP, the top high-payoff targets for the brigade were enemy rocket launch systems. When one was spotted by an aerial observer and reported to the TOC, the XO convened a hasty targeting meeting. As a result of each BOS representative's previous participation in the deliberate targeting meetings, they understood their role in the targeting process and the procedure for the hasty meeting. The XO quickly focused the battle staff on the enemy unit; the system was then engaged and destroyed.

Those attending the target meeting should be the senior BOS representatives on duty in the TOC. When the meeting is held after the commander's update in the morning, the "First Team" battle staff attends, without exception, but the "second team" must also be trained in targeting. The XO chairs the meeting, or when he is not available, the S-3 chairs.

Each player brings to the meeting a unique set of talents and experience in both friendly and enemy capabilities within their BOSs. The most important is the FSCOORD, who is the expert in all of the lethal engagement systems within the brigade task force and the acquisition systems within his battalion. When he is available, the direct support artillery battalion S-2 brings to the meeting the added benefit of another S-2 analysis specifically oriented toward reports from subordinate fire support elements (FSEs), the Q36 radar, and spot reports. At the JRTC, the artillery battalion S-2 briefed the pattern analysis of the enemy's mortar firing positions developed from Q36 acquisitions.

Another key player is the brigade engineer, who is the expert on terrain analysis, obstacle construction, and minefield operations, among other things. Our engineer recommends locations for minefield emplacement that tie terrain into tactical obstacles. He identifies the system that can best deliver the minefield—close air support for Gator minefields or FASCAM for artillery-delivered minefields. Additionally, he can help ensure the full integration of tactical obstacles with fires and maneuver forces.

An officer often overlooked but critical during low-intensity conflict scenarios is the staff judge advocate officer, who provides his knowledge of the rules of engagement. The scribe for the meeting is the targeting officer. He maintains records of previous meetings, updates two of the *Decide* products—the attack guidance matrix and the HPTL—as directed in the meeting. He passes notes of the meeting to the FSEs at both higher and lower headquarters for target nominations and taskings.

If a target is serviced because it is important to your success, it is probably important to the enemy's success as well.

Over a period of several months and several training events, we developed and refined a targeting meeting agenda that works well for a brigade task force.

- Roll call by the XO.
- Intelligence update by the S-2.
- Report of assets available by the S-3.
- Target nominations by the S-2.
- BOS crosswalk by the S-3.
- Summary and final taskings by the XO.

The S-2 in the intelligence update briefs the current enemy situation, provides an analysis of the enemy's most probable course of action and locations, and reviews his current collection and reconnaissance and surveillance plans. Additionally, the S-2 provides a BDA of targets previously engaged and the effect on the enemy course of action. He briefs changes to the PIR, for concurrence from the battle staff. Again, the PIR and HPTL should be nearly identical. In our meetings, if they were not, a discussion always followed, then ended with full

agreement among the XO, S-3, FSCOORD, and S-2.

The S-3 informs the battle staff of the resources available for targeting and briefs future operations. We found that at the JRTC the assets we thought we had available were often non-mission capable for any number of reasons. For example, with all the activities in fighting the current battle, a report that the TLQ-17 was only 75 percent effective because the air conditioning unit was inoperable, or that a low-level voice intercept system was inoperable for want of a Class IX repair part, might go unnoticed in the TOC. But the loss of the jamming or voice collecting capability was totally unacceptable. Therefore, recognizing the relevance of these problems at this point in the targeting meeting greatly improved our system readiness and the emphasis on getting the right repairs done on the equipment.

The next two steps, target nominations and BOS crosswalk, are open dialogue periods and are essential for the success of the targeting process. This dialogue begins the actual resynchronization of the brigade fight. The S-2 provides his insight into the enemy order of battle for target nomination. The FSCOORD provides his experienced judgment for analysis and both target acquisition and servicing. The other BOS representatives provide their expertise and knowledge of friendly and enemy systems and capabilities. The XO or S-3 keeps the focus of the discussion within the possibilities of friendly unit operations. Subordinate unit commanders usually already have a plan for future operations, and the targeting process must fit into their decision cycle. More important, subordinate battalion commanders must have an understanding of and confidence in the brigade targeting process. At the conclusion of the meeting, the S-2 reviews the update to his collection plan, the S-3 confirms these taskings, and, back inside the TOC, the decision support template is updated.

The targeting meeting produces several required actions:

The targeting meeting record sheet is used to record taskings assigned during the meeting. These taskings must quickly be converted to a FRAGO with specific taskings to units. At the bottom of the sheet is a checklist to ensure that the taskings are assigned and executed. The FSO informs the artillery battalion S-3 of the meeting's results. Additionally, he sends the division FSE a record of the meeting as input to the division's next targeting meeting. We found it beneficial during BCTP to send a copy of the record sheet to our liaison officer in the division main command post. He ensured that brigade input, requests, and interests were heard and represented at the division's targeting meeting. The Air Force liaison officer nominates close air support targets up his chain of command for inclusion in the next air tasking order. Finally, the brigade S-3 updates the synchronization matrix and follows up on the FRAGO to ensure that the brigade fight is resynchronized.

Great plans frequently last as long as first contact with the enemy. Therefore, the key to success on the battlefield is the implementation of a process that continually updates the synchronization of brigade task force assets that mass all lethal and nonlethal systems on the enemy at the decisive point and works within the maneuver commander's intent. Clearly, the implementation of the targeting process is the most important step a brigade can take to maintain the synchronization of its units on the battlefield.

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The Logistical Integration
Of Heavy and Light Forces

CAPTAIN DAVID B. HILBURN

As long as infantry operations include both heavy (mechanized and armor) and light (airborne, air assault, and light infantry) units, there will be a need to integrate the logistic systems that support the two forces. The differences found in the light-heavy combined arms team contribute to the flexibility of combat power, but they also challenge logistics and supportability.

The pertinent Field Manuals (FMs)—71-123, *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company Team,* 7-20, *The Infantry Battalion,* and 7-10, *The Infantry Rifle Company*—contain very little practical information on how to manage the heavy-light combat service support (CSS) environment. Once a system is in place, however, the process does not have to be difficult.

The logistical integration of forces of different compositions is best coordinated and planned at brigade level. There are several key issues in making this process work:

- Identify the key players.
- Address the command relationship.
- Know limitations and capabilities.
- Decide what structures will be used to support the mixed force.

The brigade combat team's logistical planning and coordination contribute to the success or failure of logistics execution all the way down to platoon level. A battalion detached from its parent unit is largely dependent on the brigade to which it is attached.

At the brigade level, the key players are the brigade executive officer (XO), S-4, FSB (forward support battalion) support operations officer, and the FSB commander. These key leader logisticians can make the cross-attachment easier for the attached unit. The senior brigade staff must be intimately familiar with the composition of the cross-attached force, know the limitations and capabilities of the unit, and have a concept for the integration of support.

At the battalion level, key individuals in the successful execution of logistical support are the battalion XO, S-4, supply and transportation (S&T) platoon leader, headquarters company (HHC) commander, and HHC XO.

After the key individuals are identified, establishing the command relationship between cross-attached units is the next step on the way to heavy-light CSS integration. An "attached" relationship is easier to support when a light unit is attached to heavy forces. An attached unit receives logistical support from the unit to which it is attached. Because light forces do not have the logistical support assets heavy forces have, they can be more easily absorbed by the heavy force in terms of transportation and resupply.

An "operational control" relationship is easier to support from heavy to light than from light to heavy. The cross-attachment lasts only for the duration of the mission, and each unit brings its own logistics package to support it throughout that mission. A heavy force would bring its own refuel system, ammunition-carrying vehicles, and maintenance vehicles. When a light unit is under the operational control of a heavy force, logistical concessions may have to be made to the light force, depending on the conditions (long movements, longer duration, adverse weather). If a heavy force is attached to a lighter force, special considerations must be made for petroleum products, ammunition, and hauling capabilities. Another way of tailoring a command relationship based on the logistical situation of a force is either operational control or attached, plus or minus a certain class of supply or service.

Once the command relationship is decided, the brigade S-3 or the brigade S-4 should notify both the attached and the detached battalion S-4s so that logistical preparations can begin. The implied task is that the brigade S-4, who is involved with the decision making process, can recommend a force composition based on a unit's logistical status. Making a recommendation for command relationships also requires that the brigade S-4 have a clear picture of the logistical capabilities of both the light and heavy forces.

Making a recommendation for command relationships also requires a clear picture of the logistical capabilities of both the light and heavy forces.

The next element that makes heavy-light logistics work is a clear understanding of each type of unit's organic support and its consumption rates on critical classes of supply. A review of the modified tables of organization and equipment (MTOE) and the logistical status (LOGSTAT) report helps personnel understand logistical capabilities. This must include on-hand and mission-capable equipment. Where a cross-attachment is done between battles or with little notice, the detached unit should give the attached headquarters a copy of its LOGSTAT immediately and notify the attached commander and S-4 of any critical logistics issues.

A clear understanding of who uses what type of supplies and how fast they are consumed helps determine the support structure that should be used for solving the logistics integration problem. Light forces generally use smaller amounts of Classes III and IV but use them faster, and heavy forces do not have the same number of soldiers as a light unit. The composition of forces, combined with TOE equipment, contributes to different usage rates for different classes of supply. Consumption rates and storage capacity in the field and combat trains should be addressed at brigade level in terms of each unit's basic load of any class of supply, what can be issued, where the non-issued stocks are to be kept, how fast they can be brought forward, and how often they must be replenished.

Light forces are more "push" oriented, while heavy forces can have the luxury of "pulling" resupply. A light infantry company can carry only so many 60mm mortar rounds, but it can fire 400 or more in a single engagement, then have to have more brought forward. A heavy or armored force may shoot fewer main gun or TOW rounds, but these rounds require the larger hauling capabilities organic to the battalion task force and are therefore "pulled."

After determining the composition of forces, consumption rates, and needed supplies, the battalion logistical personnel—assisted by the brigade logistical planners—can coordinate the best possible structure for the total brigade force. When specific mission-related issues are addressed, solutions may become apparent when considering logistical alternatives.

The following are some specific questions that should be considered when attaching a heavy unit to a light unit:

- Who is providing fuel and where will it be?
- In what capacity container is the fuel coming—tank and pump unit (TPU), heavy expanded mobility tactical truck (HEMTT), or blivets?
- What ammunition hauling assets are available?
- What specific ammunition is required for the mission (25mm, TOWs, 105mm or 120mm gun rounds)?
- Who has recovery assets? What are they—5-ton wrecker or HMMWV (contact team)?

• What maintenance assets are available to help?

• What are attached "slice" units bringing for specific maintenance support?

• What decontamination assets will be available? (Light forces have very few.)

• What assets are available for digging fighting positions?

• What Class III package products will be available?

• Who is allocating ammunition?

• Who is taking care of LOGPACs (logistical packages)?

Specific issues to be addressed by a light force attached to or under the operational control of a heavy force:

• How are personnel moved for long movements, and who will move them? Can a five-ton truck be provided? Can troops ride in Bradley fighting vehicles? Can the forward or main support battalion push transportation assets forward?

• What are specific ammunition needs—60mm or 81mm mortars? Who can push them forward, and how can the heavy forces push them in a LOGPAC or for emergency resupply?

• Does the unit break fuel down into smaller amounts for resupply (light forces use five-gallon cans or fuel blivets), or can a HEMTT with tank/pump unit (TPU) be pushed forward by the heavy force?

• How to configure or move barrier material to defensive positions. Consider preconfigured packages designed with platoon defense in mind so that Class IV is on hand for survivability when a company or platoon-sized element is attached.

Light forces generally use smaller amounts of Classes III and IV but use them faster, and heavy forces do not have the same number of soldiers as a light unit.

• How do we bring batteries for the TOW or other assets such as AN/PVS 7A/B night vision goggles forward?

• Can ammunition be stockpiled?

• How do we provide medical recovery assets for a larger number of personnel? Can an M577 ambulance assist the advanced trauma life support teams?

• Is aerial resupply available?

• Who is allocating or drawing our ammunition?

• Who is moving and compiling LOGPAC or push packages?

Once a unit reaches an understanding of the logistical situation, a support structure can be formed. Gaining or detached units should agree, right after receipt of a mission or upon cross attachment, what will be used for logistical integration.

Generally, the following suggestions will help, even if no logistical integration has occurred:

• The detached unit gives LOGSTAT to gaining unit upon cross-attachment.

• Prepare a memorandum of agreement for support at the brigade level for the attached battalions well in advance of a real-world contingency or training center rotation, if possible.

• If liaison officers are exchanged, they must be knowledgeable of the CSS plan and attend all CSS rehearsals and maneuver rehearsals.

• Heavy units should be responsible for manning patient transfer points and establish them close to light supply routes.

• Battalion S-4s should exchange CSS graphics/administrative logistical net frequencies and CSS standing operating procedures.

• The S-4 with the detached unit calls the gaining unit on the brigade or attached S-4's internal administrative logistical net to make sure logistical coordinations have been made.

• The S-4 of the detached unit calls the unit on its internal net to ensure that they are receiving coordinated support.

• Never assume your cross-attached unit has support. Check on it.

• All internal slice elements bring 15 days of supply of prescribed load list items and the applicable -10 manuals.

The following are some techniques for logistical support for LOGPACs or push packages:

• The detached supply sergeant works out of the gaining unit's field trains, pushing all supplies with the attached unit. This is the best way to ensure that a unit receives all needed supplies. While supply sergeants may be away from parent organization field trains, coordination is still possible even within the largest brigade support area.

• LOGPACs or push packages are formed at the parent battalion field trains but set out with the attached unit's convoys for LOGPACs. Supply sergeants and other organic CSS assets are under the control of the Headquarters Company commander, but the transportation of supplies, security, and times and places for forward LOGPACs must be coordinated.

• The gaining unit accepts all responsibility for providing support to the attached unit (this is the least popular solution). Command and control for the LOGPACs are from the gaining unit, but a gaining unit's CSS personnel must be dedicated to ensuring that these vital LOGPACs are put together. The detached unit's Headquarters Company commander and supply sergeants are left out of the direct communication loop and receive second-hand information on the logistical status of a unit. Still, this may be a viable option if cross attachment happens very quickly or no supply sergeant or CSS personnel are available from the detached unit.

Once an understanding of the logistical situation has been reached, a support structure can be formed.

Logistical planners must make sure there is enough material to support their organic units and must understand the CSS concept of support to assist their detached units as well as the units attached to them. Planning and coordination ensure that the total force can sustain itself for combat.

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The Delta Company
One Commander's Observations

CAPTAIN MICHAEL R. LWIN

On the basis of my experiences while commanding an air assault battalion antiarmor company in Korea, I offer several observations on the Delta Company—specifically, its organization, capabilities, and employment:

The antiarmor company should be renamed the infantry heavy weapons company. With the tables of organization and equipment (TOEs) now in effect, this company is more than just a tank-killing unit; it is the battalion commander's organic source of highly mobile firepower.

Given 20 M966 HMMWVs (high-mobility multipurpose wheeled vehicles), Delta Company can field a mix of three weapon systems:

- The TOW missile—maximum range of 3,750 meters, effective against all armor targets, hovering helicopters, and bunkers.
- The Mk 19 40mm grenade machinegun—maximum range 2,212 meters, effective against light armor up to 50mm thick, targets in dead space, and dismounted infantry.
- The M2 .50 caliber machinegun—maximum effective range of 1,830 meters, effective against up to 19mm of light armor, dismounted infantry, and aircraft within 800 meters.

These complementary weapons give Delta Company the ability to engage any target an infantry battalion may face.

The antiarmor company/team should be used as a maneuver company. Our current doctrine pays only lip service to the use of Delta Company as a maneuver element. Field Manual 7-20, *The Infantry Battalion,* devotes several paragraphs to the antiarmor company as a combat support unit and only one sentence to its use as a combat unit.

Real-world considerations and experience have proved the effectiveness of Delta company as a maneuver element. Most areas of the world contain road networks, and many threat armies have mounted forces. Antiarmor elements have played an important role in operations from the Joint Readiness Training Center to Somalia. In conventional warfighting operations and operations other than war, missions such as *screen, convoy security,* and *cordon and search* require mounted forces that can rapidly shift combat power from one part of the battlefield to another. The commander best suited to plan and lead these missions is the battalion's mounted operations expert—the Delta Company commander. The antiarmor commander needs to be considered a maneuver commander with very special capabilities instead of a member of the special staff.

Its complementary weapons give Delta Company the ability to engage any target an infantry battalion may face.

Using the Delta Company as a combat element gives the battalion commander four maneuver units—three dismounted and one mounted. This also gives him the option of task organizing and forming four company teams with a mix of riflemen and mounted heavy weapons infantry.

Delta Company's capabilities also make it a possible candidate for use as a brigade or even a division asset. Its mobility through slingload operations enables it to place heavy firepower at any point along the battlefield. Delta Company's capabilities are similar to those of the German airborne antitank battalion that Lieutenant Colonel Wolfgang Mettler described in INFANTRY's January-February 1995 issue (page 24). Except for attack helicopters, the Delta Company's combination of mobility and firepower is unmatched by any other unit. And unlike attack helicopters, the company can hold ground and remain in position without having to pull out to refuel.

Our antiarmor doctrine needs to be updated. Most of the current doctrine does not address the company's use as a heavy weapons company or a maneuver element. FM 7-91, *Tactical Employment of Antiarmor Platoons, Companies, and Battalions,* and its related ARTEP manual were produced at a time when the Mk 19 and M2 were not part of the antiarmor company. This series of manuals should be rewritten to include the capabilities afforded by new equipment as well as practical experience from the entire Army. Most Delta Companies and their battalions, brigades, and divisions have developed tactics, techniques, and procedures (TTPs) that incorporate the lessons they have learned. The infantry now needs to standardize these TTPs into doctrine.

Delta Company's heavy weapons are

not good for extended foot movements. Antiarmor soldiers can march like rifle soldiers when they carry similar loads, but during most missions, they operate with heavy weapon systems that are not designed to be man-portable over great distances. It takes one antiarmor platoon to carry one dismounted TOW, Mk 19, or M2 and its required ammunition into combat. The average soldier in the platoon carries more than 64 pounds of heavy weapons equipment alone. Factoring in his load-bearing equipment, personal weapon, and other gear, his load exceeds 100 pounds. When contact is expected, the antiarmor platoon is best employed in foot movements of no more than two kilometers on hilly terrain, or five kilometers on level ground.

Another disadvantage during long foot movements is the limited amount of ammunition that can be carried. A platoon with a TOW can carry only two missiles. A platoon carrying a Mk 19 will exhaust its rounds after five minutes. A rifle company can get more firepower from its own Dragons, AT-4s, M60s, and 60mm mortars than with heavy weapons that are carried forward with only limited ammunition.

Antiarmor elements have played an important role in combat operations, from the Joint Readiness Training Center to Somalia.

Although Delta Company's heavy weapons are not good for foot movements, they can be deployed dismounted in the vicinity of their carriers. Setting up an observation post, finding cover and concealment, or locating the best shots are all good reasons for dismounting heavy weapons. The key point is that they remain within about 300 meters of their HMMWVs, the source of their mobility and ammunition resupply.

One other possible dismounted mission is an air assault to a blocking position. This mission requires detailed planning and close coordination. The heavy weapons platoon must be landed close to its designated battle position and must have a plan for ammunition resupply and a rapid linkup with follow-on forces must be planned and executed as well.

All antiarmor companies should be completely and similarly equipped. Throughout the Army, there are a number of variations on Delta Company organization. These should be standardized according to a few rules:

- Give all M966 HMMWVs mounts for multiple weapons so that the platoon can mount a TOW and a medium machinegun at the same time, or a Mk 19 and the TOW thermal sight at the same time.
- Put the platoon leader in a fighting vehicle—an M966 HMMWV with a machinegun. Give him the equipment to lead from the front and survive.
- Give the executive officer and first sergeant their own vehicles, since their duties require them to be mobile and to operate separately.
- Give each platoon an organic recovery capability—at least one winch (probably on the platoon sergeant's truck) and one tow bar.

Like every other maneuver element, Delta Company needs fire support. Current modified TOEs do not support the attachment of any fire support personnel to Delta Company. To be fully effective as a maneuver element, however, the company needs fire support soldiers with a digital link to the artillery. Even the addition of one fire support noncommissioned officer can yield more responsive indirect fires, as practical experience has proved. Delta Company also offers the fire supporters something in return—more powerful and reliable communications (power amplified, vehicle-mounted radios) and a mobile platform (the M966) to carry and mount the ground/vehicle laser locator designators (G/VLLD). Whether it is one soldier with a digital message device or a complete fire support team, Delta company needs fire support personnel and can put their abilities to good use.

The Delta Company gives a battalion commander a wide range of capabilities and options that are different from those of the rifle companies.

The Delta Company gives a battalion commander a wide range of capabilities and options that are different from those of the rifle companies. Its mix of heavy weapons enables the battalion to engage and destroy any target on the battlefield. Delta Company can give the battalion commander a pure mounted combat force or enable him to task organize four companies with a mix of dismounted infantry and heavy weapons. The company's leadership and mobile firepower make it a highly capable maneuver asset. With updated doctrine, proper employment, and a full set of equipment, the Delta Company can reach its full potential as a combat element of the airborne or air assault infantry battalion.

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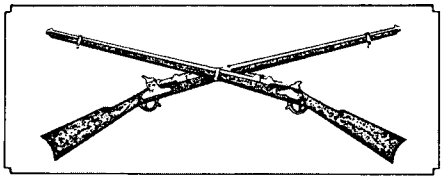

mally a circular fighting position, thus limiting 360-degree security.

Iraqi Infantry Platoon in Defense

Iraqi infantry platoons defend with their infantry in forward trench lines unsupported by armored vehicles. Each squad digs five two-man fighting positions with overhead cover flush to the ground and well camouflaged. The squad positions are connected by communication trench lines. The platoon will defend with two squads forward and one back. The platoon leader is located in the vicinity of the rear squad position.

Each platoon will have an OP behind the protective obstacles, and the OP will stay in position throughout the battle. Each platoon is armed with three RPG-7s and reinforced with two SPG-9s. Each squad will have one RPG-7. The SPG-9s will be located to the rear of the platoon position for effective use of the weapon's range. The platoon's antitank weapons will have overlapping fires that cover the tactical obstacles. The protective minefields will be protected by final protective fires, automatic weapons, and RPG-7s. The long-range antitank systems also provide protection to the flank of the position.

The Iraqi platoon in defense covers an area 350 by 350 meters. Squads are 60 to 70 meters apart with the reserve squad 50 to 100 meters behind the frontline positions. Squad positions are 75 meters deep. The OP is up to 200 meters forward of the front lines.

The advantages of this position are that it offers overhead cover flush to the ground for fighting positions, and each position is connected to others by communication trenches.

The diagrams and descriptions of these outposts will help small-unit leaders and soldiers plan and train the way they can recognize and attack enemy platoon outposts. These are the doctrinal plans, which can be modified on the basis of terrain, enemy, and weather.

These security outposts are designed to provide early warning, to prevent U.S. reconnaissance from targeting company positions, and to cause the U.S. forces to deploy. The outposts will normally receive direct and indirect fire support from the battalion. In OPFOR doctrine, once the enemy begins to deploy for a major attack, the security forces will withdraw, but this will not be the case with the North Koreans.

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FIFTY YEARS AGO IN HISTORY
NOVEMBER-DECEMBER 1946

Eighteen months after the end of World War II, the former Allies had yet to arrive at a consensus on the rebuilding of Germany, the future of Korea, or a resolution of China's political future. In the meantime, Korea continued to train and expand the fledgling defense force that had assumed many of the duties formerly carried out by U.S. Military Police. Concurrently, the U.S. Marine Corps began reviewing its amphibious operational doctrine in light of the capabilities revealed in atomic bomb testing.

These and other highlights of the postwar years have been provided by Mr. Bud Hannings, in preparation for his upcoming chronology of the Korean War.

4 November	***The United States welcomes a Council of Foreign Ministers, in an attempt to reach a compromise among the four occupying powers on the rebuilding of Germany. Due largely to Russian intransigence, the conference will remain in session for two months without reaching an agreement.***
15 November	***Although the Chinese National Assembly convenes, the communists—asserting that power should have been transferred to the State Council before convening the National Assembly—largely boycott the meeting.***
30 November	***The Korean Constabulary now numbers 143 officers and 5,130 enlisted men and has established another garrison, on the island of Cheju-do. Much of their training, still based on the Japanese or Chinese models, will require modification to more closely follow U.S. tactics.***
16 December	***General Vandegrift, the Marine Commandant, receives a detailed report on the likely effects of a nuclear attack on an amphibious landing force. The report contends that as a result of this technological advance in the art of war amphibious landings as seen in World War II are now obsolete.***
31 December	***The Council of Foreign Ministers adjourns, agreeing to meet again in Moscow on 10 March 1947. No progress has been made on the issues of demilitarization, the number and status of German POWs held by the Russians, or the open inspection of manufacturing plants by members of the quadripartite teams.***

The Defense of Camp Able Sentry

Captain Craig A. Collier

The United Nations Preventive Deployment, begun in 1993, has the mission of preventing the Balkan War from spreading south into Macedonia. The U.S. mission in that effort, called Operation *Able Sentry,* is to observe, monitor, and report any activity along the Serbian-Macedonian border.

Currently, the task force assigned to Macedonia is a mechanized infantry battalion (minus), augmented with an engineer platoon, an aviation detachment, a military police (MP) squad, a civil affairs detachment, and several other elements totaling roughly 600 soldiers, 300 of whom live on Camp Able Sentry. Every six months, a new task force takes over the mission. My battalion, the 3d Battalion, 12th Infantry, 1st Armored Division, deployed from Germany for its six-month tour in 1995. As commander of the headquarters and headquarters company (HHC), I was "commandant" of the camp.

During preparations for this mission, one of the things we had to consider was the defense of the camp. Unfortunately, in spite of the Army's many recent deployments on peacekeeping or stability and support missions, we found that doctrinal references for conducting a base defense were quite limited. Of the field manuals readily available, only a few even mention base defense: Field Manual (FM) 7-98, *Operations in a Low Intensity Conflict* devotes four pages to it; the Center for Army Lessons Learned (CALL) has an Operations Other Than War handbook (No. 94-4, July 1994) containing a few pages on the subject, plus a checklist. Most of this information consists of general concepts with few specifics.

The best manual on conducting a base defense is FM 90-12, *Base Defense: Multi-Service Procedures for Defense of a Joint Base.* It goes into much greater detail and includes a sample base defense plan, a discussion of passive and active defense methods, responses to terrorism, and other useful information.

Still, many of the lessons we learned about securing a base camp in a peacekeeping environment had to come from on-the-job experience.

Adjacent to Skopje International Airport, Camp Able Sentry houses the task force and all the support assets for the 12 observation posts (OPs) along 70 kilometers of the border. Several buildings from an old Yugoslav air defense unit make up the barracks, and warehouse structures house vehicles, a gym, and supplies (Figure 1). Several smaller "accommodation containers," commonly called conexes, make up the rest of the buildings in an area of approximately one-half square kilometer.

Unfortunately, the camp site was chosen for its accessibility and life-support assets, and not for its defensibility. The terrain has two major disadvantages: It is on low ground dominated by several small hills, and it is bordered on three sides by trees and barracks belonging to the Macedonian Army. Only one side, adjacent to a farmer's field, has anything close to good fields of fire and observation.

The main challenge in developing a defensive plan was that of making this poorly situated area defendable against a range of possible attacks, from terrorists to Serbian divisions. And everyone in the camp, except the soldiers in the force protection platoon, had primary jobs other than base defense.

Another problem was that, for political as well as practical reasons, we could not construct "Firebase" Able Sentry. We were there to show a presence, not to hide in our compounds.

The Plan

An attack anywhere in the perimeter would probably have serious political consequences, regardless of the damage. But three areas were particularly sensitive—the barracks, the ammunition supply point (ASP), and the three "Whitehawk" helicopters (UH-60 BlackHawks painted white).

When my unit arrived in May 1995, much passive defensive work had already been done by previous units. Three-foot-high cement pylons and two belts of triple-standard concertina formed the camp perimeter. Heavy steel gates blocked the two entrances to the compound. The main entrance had concrete barriers set up just outside the gate, which forced incoming traffic to slow down before entering. The rear gate, used exclusively by oversized trucks that could not negotiate the front gate barriers, was blocked by an M113 as well as a locked gate. Spread throughout the perimeter were 14 two-man fighting positions and nine 30-foot guard towers.

The first line of defense was the perimeter wire and pylons, watched over by the force protection platoon in the guard towers and the MPs at the front gate. The soldiers on duty had to be alert and fully knowledgeable of the rules of engagement and the appropriate use of deadly force.

At least one squad from the force protection platoon manned the guard towers and patrolled the perimeter 24 hours a day. Another platoon, designated the quick-reaction force (QRF) platoon (the task force reserve) had the mission of responding to any crisis in the American sector, including Camp Able Sentry. Additionally, two soldiers from our attached MP squad manned the front gate.

The second line of defense was the ring of fighting positions around the camp. Four platoons (maintenance, engineer, support, and headquarters company) manned these positions when the camp was alerted.

Accurate intelligence was vital to our preparation. Even a few minutes' notice of an impending attack could be crucial to a successful defense. Everyone needed to understand and rehearse the alert procedures.

The camp operated under the United Nations Preventive Deployment Threatcon system (Figure 2), which is similar to the common Green, Amber, and Red alert system. Green was used for normal, low-threat conditions, Orange signaled an increased threat and primarily applied to the force protection platoon, and Red, a camp general alert, was to be used when an attack was imminent or occurring. Both Green and Orange were to be maintained indefinitely without affecting our operational capability.

Unfortunately, we did not deploy with our Bradley fighting vehicles. The vehicles in the camp consisted mainly of white-painted M113s, HMMWVs (high-mobility multipurpose wheeled vehicles), and five-ton trucks. Except for a few TOW-mounted scout HMMWVs and some AT4s, the largest direct-fire weapons were a dozen .50 caliber machineguns, all

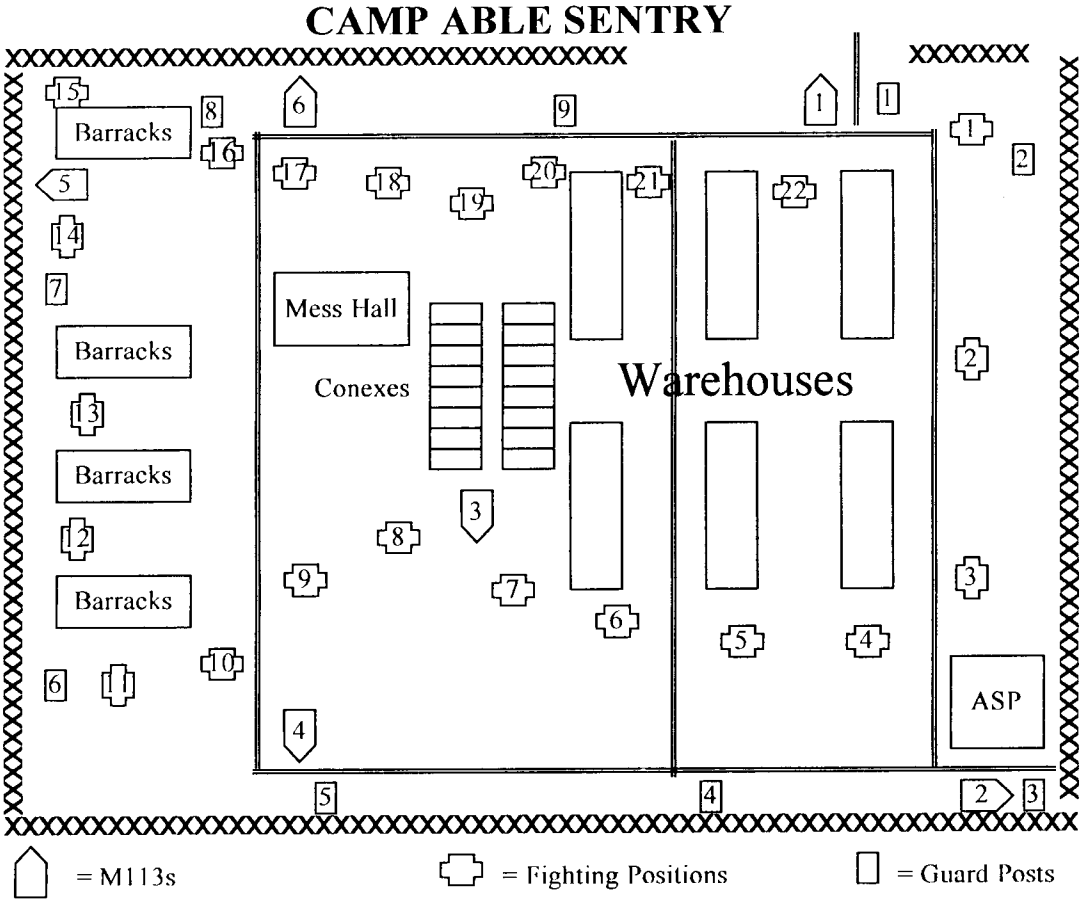

Figure 1

THREATCON MANNING REQUIREMENTS	GREEN	ORANGE		RED	COMMENTS
		DAY	NIGHT		
- Guard Post #1 (Front Gate):	2	2	2	2	MPs full time
- Guard Post #2 (Motorpool West)	1	1	2	2	
- Guard Post #3 (ASP):	1	2	2	2	
- Guard Post #4 (Motorpool East)		1	2	2	
- Guard Post #5 (Helipad NW):		1	2	2	
- Guard Post #6 (Helipad South)	1	1	2	2	
- Guard Post #7 (C Company):	1	1	2	2	
- Guard Post #8 (BOQ/BEQ):	1	1	2	2	
- Guard Post #9 (EM Club):		1	2	2	
- Inside Rover Team #1:	2	2	2	2	
- Inside Rover Team #2:		2	2	2	
- SOG With/Runner:	2	2	2	2	
- Rover Team Helipad:				2	
- Rover Team ASP:				2	
- M113 #1 (GP #1):			2	2	MPs
- M113 #2 (ASP, GP #2):			2	2	
- M113 #3 (Helipad, vic GP #5):				2	
- M113 #4 (Helipad, vic GP #6):				2	
- M113 #5 (BOQ/BEQ, GP #8):				2	
TOTALS:	11	17	28	38	

Figure 2. Threatcon Manning Requirements

THREATCON MANNING REQUIREMENTS (BY NAME)	NAMES		ROOM
- Guard Post #1 (Front Gate):	1)	2)	
- Guard Post #2 (Motorpool West)	3)	20)	
- Guard Post #3 (ASP):	4)	17)	
- Guard Post #4 (Motorpool East)	12)	21)	
- Guard Post #5 (Helipad NW):	13)	22)	
- Guard Post #6 (Helipad South)	5)	23)	
- Guard Post #7 (C Company):	6)	24)	
- Guard Post #8 (BOQ/BEQ):	7)	25)	
- Guard Post #9 (EM Club):	14)	26)	
- Inside Rover Team #1:	10)	11)	
- Inside Rover Team #2:	15)	16)	
- SOG With/Runner:	8)	9)	
- Rover Team Helipad:	35)	36)	
- Rover Team ASP:	37)	38)	
- M113 #1 (GP #1):	18)	29)	
- M113 #2 (ASP, GP #2).	27)	28)	
- M113 #3 (Helipad, vic GP #5):	29)	30)	
- M113 #4 (Helipad, vic GP #6):	31)	32)	
- M113 #5 (BOQ/BEQ, GP #8):	33)	34)	

Figure 3. Force Protection Matrix

mounted on M113s. We had plenty of small arms and the ammunition to go with them, including smoke and hand grenades. Our night vision devices consisted of AN/PVS-7Bs and a handful of UAS-12C thermal night sights to go with the TOWs.

Although the barriers, fighting positions, patrols, and a detailed plan were similar to those in any defense, several key elements of the plan require more explanation:

Force Protection Platoon. This platoon maintained vigilance around the camp perimeter. It fell under the control of the camp commandant, and its manning level requirements reflected the Threatcon. The status was Green most of the time, which meant the platoon had a nine-man squad plus the two MPs on duty at the front gate. Every three weeks a line company platoon rotated from the OPs to assume this force protection duty. In the event of an alert, the platoon had 10 minutes to transition from level Green to Orange or even Red.

The platoon sergeant signed for a variety of equipment. In addition to the equipment organic to his platoon, he had several M113s, a heavy flak vest for every soldier, about 10 Motorola hand-held radios, a few VRC-46 and PRC-126 radios, a dismounted TOW system (with its thermal sight), and ammunition. The M113s, with .50 caliber machineguns, were

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positioned at key areas on the perimeter, while the TOW system was in the tower nearest the ASP. A locked "flex pallet" (a cage six feet long, three feet wide, and three feet deep) located outside the sergeant of the guard (SOG) conex held the platoon ammunition. Another conex nearby contained the rest of the equipment, except for what was needed in the towers.

The Motorola radios were by far the most useful equipment. We found them more reliable than the standard issue Army radios, and the recharger saved us from constantly changing batteries. The dismounted TOW system presented a unique challenge because of the lack of batteries and the direct current needed to operate them (the post operated on alternating current).

Most of the platoon leaders rotated their squads every six or eight hours, depending on the size of the platoon. A four-squad platoon had a much easier time. The MP squad leader rotated his soldiers separately from the force protection platoon, usually every 12 hours.

A few days before reporting for duty, the platoon sergeant inspected and signed for the force protection equipment. When the rest of the platoon arrived to begin duty, either the executive officer or I conducted a detailed in-ranks inspection, paying particular attention to the cleanliness of weapons and the soldiers' knowledge of the ROEs. If a soldier did not pass this inspection, he was not allowed on duty until he corrected the problem and passed the re-inspection. Until then, his buddies pulled his duty for him. This was strictly enforced.

Some time before the platoon assumed duty, I reviewed the standards with the platoon leader and the platoon sergeant. These standards included the following:

- Everyone must memorize and understand the Rules of Engagement and Actions on Hostile Act.
- To prevent boredom and subsequent inattention, a soldier would not be on duty in any single location for more than an hour.
- A squad leader was free to rotate his soldiers among the guard posts any way he wanted so long as he used a different method every time and that method differed from those of the squads before and after his shift. (The idea was to keep the rotation as random as possible so anyone monitoring the guard force could not decipher a rotation pattern.)
- The platoon leader or sergeant would be the officer of the guard and would make at least one daylight and two nighttime checks daily.
- Although the MP squad leader was ultimately responsible for the conduct of his soldiers at the front gate, the MPs on duty fell under the control of the force protection squad leader.
- The guards would use only M16 rifles (no M249 light machineguns). (The M249 easily jams when using a 30-round clip, and aiming and firing single shots is more difficult.)

In an alert the platoon was expected to have 100 percent accountability, all required posts manned, and weapons, equipment, and ammunition issued within ten minutes. These alerts were come-as-you-are affairs; there was no time for anyone to get into uniform. And to avoid confusion, the platoon reacted

the same way, whether it was going to Threatcon Orange or Red.

During alerts, the SOG was the most important man in the camp. He had to know exactly what to do, or the platoon would fail, and camp security would be breached. Typically, an alert would begin with a spot report from one of the guards that he saw two suspicious men with weapons near the back gate. The SOG immediately took the following action:

- Reported the situation to the task force tactical operations center (TOC).
- Sent the roving patrol to the threatened area. (Usually the patrol had monitored the report and was already on its way at a run.)
- Sent his runner to alert the QRF squad leader. The runner gave the squad leader a Motorola radio already set on the force protection frequency.
- Alerted the force protection officer-in-charge (OC) by FM or Motorola, who in turn alerted the rest of the platoon.
- Developed the situation, kept the TOC informed, and prepared for the arrival of the rest of the force protection platoon. The OC took charge when he arrived.

After a few rehearsals, most of the platoons could get the roving patrol to the threatened area within one minute, the QRF squad could be there within two minutes, and the rest of the force protection platoon in their positions within five minutes.

The force protection conex was a hectic place during an alert, with equipment, weapons, ammunition, radios, and night observation devices being issued and reports sent and received. Each platoon had its own unique way of streamlining this process so as to eliminate confusion and meet the time standard. The platoon sergeants pre-arranged the equipment (flak vests and radios), and when the alert sounded, the SOG's runner placed night observation devices and two loaded magazines on each of the flak vests, then issued the weapons. Usually, the OC or another squad leader arrived first and helped with the reports or with the force protection matrix.

This matrix was one of the tools we developed to help the SOG during an alert. It was nothing more than the 38 Threatcon manning requirements in order of fill priority (Figure 3). Positions 1 through 11 were always manned. When soldiers arrived at the SOG conex during the alert, the SOG grabbed the first man ready and sent him, for example, to position 12, which was Guard Post 4 (motorpool east). The second man would be sent to position 13 (Guard Post 5, Helipad NW), and so on. All of the SOGs copied the matrix onto the dry erase board in the conex and simply wrote the name of the soldier in the blank space when the time came.

I gave the platoon leader a few days to conduct his own alert rehearsals before I alerted him myself. Several times during their internal rehearsals, the platoons developed a technique that worked so well I incorporated it into the SOP. After several rehearsals, most of the platoons met the standard in five minutes or less.

We had a real alert three times during our rotation (when the power went out one night, when a Macedonian taxi rushed up to the front gate, and when a guard spotted a man with a weapon moving toward the perimeter). In each case, the force protection platoon acted properly on its own, without supervision, and well within the time standard. The rehearsals paid off.

The Quick Reaction Platoon. The quick reaction platoon responded to any threat in the American sector, including the camp. One squad was always on standby, in BDUs with weapons and equipment handy, in the QRF shack adjacent to the force protection SOG conex. In case of an attack on the camp, the QRF squad fell under the immediate command of the force protection squad leader.

Like the force protection platoon, the QRF platoon signed for M113s, radios, and weapons before they began their rotation. They also worked out of conexes and were kept immediately available. The S-3 was responsible for their training and readiness, and the S-3 Air conducted several QRF rehearsals similar to the ones conducted for the force protection platoon.

Except for a few TOW-mounted scout HMMWVs and some AT4s, the largest direct-fire weapons were a dozen .50 caliber machineguns, all mounted on M113s.

Originally, the camp alert plan did not include a mission for the QRF platoon. Once we began rehearsing the alert plan at Camp Able Sentry, however, we realized that there was a significant gap between the time the roving patrol responded (within one minute) and the time the rest of the force protection platoon arrived (five minutes). Although that may not sound like a long time, four minutes is critical in an alert, and there's only so much a two-man roving patrol can do. The QRF, which could deploy its squad to any threatened area within two minutes, filled that gap.

As the alert progressed, the rest of the QRF platoon's soldiers deployed in their M113s to the front and rear gates, or to the threatened area, to augment the force protection platoon.

Military Police Squad. The MP squad's primary mission was to secure the front gate, also called Guard Post 1. They occupied a small building adjacent to the front gate that housed their weapons, ammunition, radios, and the rest of their equipment. Parked nearby, ready to seal off the gate at a moment's notice, was an M113 with .50 caliber machinegun. Two MPs manned Guard Post 1 at all times. They had several forms of communication that included Motorolas, a VRC-46, and a TA-312 that allowed landline communication directly to the task force TOC. Their rules of engagement were identical to those of the rest of the guards.

In addition, the MPs performed several duties that came with their unique location. The most important of these was the inspection of personnel and vehicles entering and leaving the compound. In an average day, more than 100 vehicles, most of which were ours, passed through the front gate. But more than 50 Macedonians (kitchen police, interpreters, garbagemen) also had unescorted access to the camp, and the compound was open to all U.N. and U.S. personnel and vehicles that showed proper identification.

This did not mean that the MPs waved all familiar vehicles

through the front gate. In fact, they asked each driver, task force or not, whether he had left his vehicle unsecured at any time outside a U.S. or U.N. camp. If the answer was yes, the MPs inspected it using a specially built wheeled mirror to look under the vehicle for a bomb or any other suspicious looking device.

The MPs had a list in their guard shack of the people authorized unaccompanied access to the camp. Before they made this list, all of the Macedonians were screened by the S-2, with help from our civil affairs detachment. Still, inspections as they entered the compound and random inspections as they left kept everyone honest.

When someone arrived at the front gate who did not have unaccompanied access, the MPs called the TOC, which in turn notified the section that had to escort the individual (usually someone from the civil affairs detachment). The visitor surrendered his identification for the duration of his visit, and the MPs kept a log of all visitors, both for security and for alerts.

During alerts, the MPs locked the front gate, pulled their M113 up to block it, and manned one or two of the fighting positions nearby. The rest of the squad rushed immediately to Guard Post 1 and assisted as necessary.

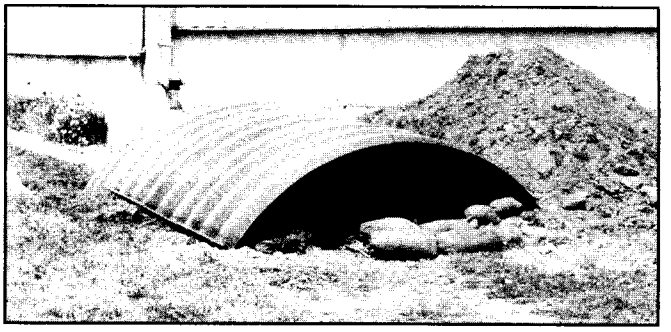
One of the benefits of having MPs dedicated to the front gate was that we did not have to train a new batch of soldiers on this unique duty every three weeks. Also, front-gate duty was something for which the MPs' military occupational specialties prepared them. Unlike many of the mechanized infantrymen in the task force, the MPs did not have to learn a new skill. Their professionalism went a long way toward making a good first impression on those entering the compound.

Construction of Overhead Cover. The priority of defensive work for Camp Able Sentry was to rebuild the fighting positions around the perimeter and build two 40-man shelters. Completing this overhead cover was considered especially important after Serbian missiles had landed dangerously close to the American Camp Pleso near Zagreb, Croatia, earlier in the year.

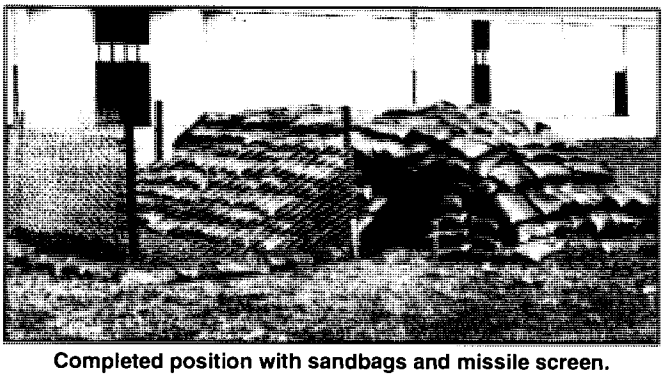
We had a variety of assets at our disposal with which to complete this work. Our engineer platoon had a small emplacement excavator (SEE), whose backhoe and pneumatic drill attachment proved critical for building the fighting positions and 40-man shelters. Although wood was in short supply, there was no shortage of sandbags, V-shaped pickets, and concertina wire. In addition, we had two unique assets available to us through the U.N. supply system—gabions and Abri shelters.

A gabion is a fence-wire box designed to hold rocks and form a field-expedient barrier. Unfolded, the box is about five feet long, five feet wide, and three feet high. Folded gabions (five feet by three feet by two inches) proved adequate substitutes for plywood. Unlike plywood, in fact, the steel gabions would not rot, and they could bend—two features we would need to construct our fighting positions.

The Abri shelter sections—each made of one-eighth inch thick corrugated steel, curved in a crescent shape six feet long, three feet wide, and weighing 100 pounds—were designed for 40-man shelters but were also ideal cover for fighting positions.



Abri shelter pieces



Completed position with sandbags and missile screen.

After the future location of the fighting positions was marked, the SEE operator and a detail built the first one as a model. After some trial and error, we standardized the design, which required three Abri shelter pieces, eight gabions, 12 pickets, about 200 sandbags, and 12 bolts (used to fasten the gabions to the Abri pieces). The size of the Abri pieces allowed us to build a fighting position much larger than normal—11 feet long, four feet wide, five feet deep. This size allowed four soldiers to man each position comfortably, and six could occupy it if necessary. The Abri pieces, two gabions and sandbags provided more than 18 inches of overhead cover while the other six gabions and the pickets reinforced the walls. Each position also had two one-foot deep grenade sumps on the sides and was covered with a camouflage net.

The SEE took about an hour to dig the position, and another hour to dig the grenade sumps with its pneumatic drill. The remaining work of filling sandbags, pounding pickets took a squad-sized detail the rest of the day. Once a position was completed, the section assigned to it ensured that it was maintained properly.

Also on the compound we found about 25 blast shield pieces measuring two feet by four feet, apparently shipped earlier to Camp Able Sentry from a deactivated missile battery in Europe. Designed to prevent damage to sensitive equipment (such as a Pershing missile), the 75-pound ceramic and Kevlar blast shields were supposedly able to withstand the impact of small arms and shrapnel. Before installing them, we tested and discovered that at very close range (25 meters), the shields stopped single-shot 5.56mm rounds (M16 and M249) and 7.62mm rounds (M60 machinegun), although a burst of six rounds from an M249 in a six-inch by eight-inch area managed to penetrate. Also, if placed the wrong way—Kevlar side instead of the ceramic side toward the enemy—the M16 round not only pen-

etrated but created ceramic spall as it exited the shield. Used properly and with sandbags, the blast shields would be very effective against small arms fire and shrapnel.

We had only enough blast shields to reinforce one area and, because of the vulnerability of the front gate, these shields went to the MP guard shack. After bolts of the right size were purchased locally, a small detail took two days to attach them to the building and reinforce them with sandbags wherever possible.

The 40-man shelters, which resembled underground Quonset huts, presented a different challenge. Designed to withstand a direct hit from a 120mm mortar round, each one was far more labor-intensive and time-consuming than building a four-man fighting position. They took about a month to build and required 18 Abri pieces each, plus a great deal of wood, primarily plywood, to seal off the ends and build the stairs. When completed, a shelter had benches, a gravel floor, lights and outlets for fans or heaters, a ventilation system, and a small space for a field-expedient latrine.

After the fighting positions and shelters were completed, Camp Able Sentry had enough overhead cover for everyone in the compound.

Ammunition. The ASP was in one of the most vulnerable areas in the camp, but the only place in the compound that satisfied the minimum safe distance required for high explosives.

Fortunately, however, the ASP was not the only ammunition storage area in the camp. The MP squad, aviation detachment, force protection platoon, and QRF platoon had their own basic loads stored in flex pallets near their squad or platoon areas. The HHC arms room conex, in the vicinity of the barracks, had a limited supply of small arms ammunition (enough for one 30-round magazine per M16 and one 15-round magazine for each 9mm pistol). Also, flex pallets under four of the 30-foot guard towers provided two basic loads of small arms ammunition and a limited number of smoke grenades and pyrotechnics for each fighting position.

Within each of the four flex pallets were boxes and cans of ammunition. One pallet, for example, contained ammunition for five fighting positions, and each position had a different assortment of weapons (M16s, M249s, or M203s). To avoid confusion and ensure that every fighting position received the correct amount and type of ammunition, each box and can had the position number spray-painted on it. This system worked well.

During alerts, a soldier received 30 rounds of ammunition for his personal defense when he drew his weapon, then drew two basic loads from the flex pallet.

Early in the alert sequence, the ammunition NCO and a detail from the support platoon went to the ASP to issue missiles and explosives to the rest of the task force. Beginning with the scouts at 20 minutes after the alert and continuing every ten minutes, the ammunition NCO issued the platoons AT4s, TOWs, hand grenades, and additional ammunition as necessary.

Alerts. A portable siren in the TOC was used to alert the camp in case of attack. The battle captains decided when to alert the entire camp. If camp security was working properly, the force protection and QRF platoons were already responding to the threat on their own, and the siren was to alert everyone else.

When the siren went off, every soldier moved to his designated section link-up area, usually in the hall where the section slept. Here, the senior NCO conducted a roll call and ensured that each of his soldiers had load-carrying equipment, flak vest, and Kevlar helmet. The section then waited to be called to the arms room conex for weapon and ammunition issue. After drawing his weapon and one magazine, each soldier went to his assigned post. Only about half of the soldiers went to the fighting positions. The rest either had jobs supporting the alert or went to the 40-man bunkers. The scouts and a few civil affairs NCOs moved outside the front gate to provide early warning on the approaches to the camp and to establish liaison with the local Macedonian Army commander.

By far the biggest bottleneck in a no-notice alert was the weapons draw. Although each soldier turned in his weapons card to one of the armorers and received his weapon and magazine, this took time when more than 150 soldiers were drawing weapons. After one confusing rehearsal, we realized that we could not risk having so many soldiers in the open waiting in line to draw weapons.

The solution was to have every section sergeant gather his soldiers indoors in a central location and move to the arms room conex when called. The HHC supply sergeant was in charge of ensuring that the draw went smoothly, and the HHC first sergeant positioned himself nearby to get accountability from the section sergeants as they came through. The armorers organized the arms room conex by section to save time issuing weapons. A list of the draw priority was posted and disseminated, the next rehearsal went much smoother. It took 25 minutes from the start of the alert to the time when every soldier had a weapon (about 10 seconds per soldier).

The MPs determined the exact number of non-combatants we had in the camp. During alerts the visitors and Macedonian workers gathered in the dining facility under the control of one of the civil affairs NCOs. If the alert continued, they were moved to one of the 40-man shelters, and the civil affairs NCO became the shelter NCO in charge.

A decision had to be made early in the alert regarding the aviation detachment. In the event of a real threat, the detachment would cold-start the three Whitehawks and fly to a terrain feature in the opposite direction from the attack. They were expected to have their helicopters in the air within 10 minutes, and since they had their own weapons and ammunition conexes, they were able to meet this standard.

Once all of the battle positions on the perimeter reported REDCON 1 (all soldiers accounted for, all fighting positions manned, and all ammunition issued), the force protection platoon handed over the M113s to the appropriate section, left the guard towers, and acted as the camp reserve. The QRF platoon also collapsed into the center of the perimeter to act as an additional reserve platoon. If necessary, either platoon's soldiers could be used to fill vacancies in the fighting positions caused by leaves, passes, or soldiers off-post.

Unfortunately, Camp Able Sentry had no immediate fire support available. The mortar platoon was in downtown Skopje guarding the U.N. headquarters and could not arrive until well into the alert. Once these soldiers did arrive, however, they were to take up three positions in the center of the compound and provide 81mm mortar support as necessary.

With a surgeon based at the camp and a high-technology medical data transmission system on hand, the medical platoon was easily capable of performing casualty triage. The helicopter pilots and medics rehearsed the routes to the two local hospitals in downtown Skopje for urgent cases.

Mission Preparation

Rehearsals were by far our most important preparation for the mission. Three months before our rotation, we visited Macedonia for a week-long reconnaissance. The unit conducting the mission gave us copies of its SOPs and policies to take back with us, and we incorporated most of them as our own. This visit proved critical to our understanding of the mission and also familiarized us with the camp. When we returned to home station, we put together a training plan that was as realistic as possible, based on our observations.

A local German kaserne provided the setting for the Camp Able Sentry force protection train-up. Although we could not replicate the camp completely, the two-week training event helped all of the platoons understand the force protection mission and the ROEs. We realized early that the soldiers' knowledge and understanding of the ROEs and Actions on Hostile Act was crucial to the security of the camp.

Learn as much as you can about base defense before you deploy.

The field training exercise also identified several weaknesses in our plan. We refined the Threatcon manning requirements and the actions to be taken upon alert, established the force protection matrix and the random guard rotation, and made countless other minor changes. Platoon leaders, platoon sergeants, and squad leaders contributed many of these improvements.

After we deployed and took over the mission, rehearsing the alert procedure in the camp itself led us to several more changes, including using the QRF platoon to augment the force protection platoon, the weapons draw plan, and other improvements. Once again, junior leaders often provided solutions that would make the whole process more efficient.

Local Workers and the U.N.

The United Nations played a far less significant role than we had anticipated, but we did get several important items through the U.N. supply system. The Abri shelter pieces, gabions, and pickets all came from the U.N. On request, the U.N. also sent local workers to complete simple plumbing and maintenance jobs. And we had half a warehouse full of U.N.-delivered items ranging from paper to furniture. Getting what we wanted took a long time, but it was better than nothing.

Having the local people on our side also helped. Since the camp was on the grounds of the Macedonian Army, we had to request approval of any type of ground work through the local Macedonian Army headquarters. They were sometimes reluctant to allow us to make even minor changes to the camp—that is, until the assassination attempt on their president.

When we heard that President Gligorov was gravely injured, we immediately sent our surgeon and the TELEMED system and offered any help needed. A day later, Walter Reed Army Hospital sent a neurosurgeon to render assistance. Although they did not need our help, the Macedonians appreciated the effort. The United States received favorable reports in the local newspapers, and the spirit of cooperation improved.

The following are several recommendations to anyone who is about to take command of a base defense:

Prepare. Learn as much as you can about base defense before you deploy. FM 90-12 is a good place to start. Articles on the Beirut tragedy and recent bombings will provide helpful nuggets of information. Tailor your home station training plan to what the guards need to know. Experiment with different security techniques.

Keep the Wagons Circling. An effective base defense is not built in a day, but it can be improved every day. Establish a priority of work and stick with it. Use whatever equipment and material you have on hand to get the job done. Keep everyone involved in base defense all of the time. Junior leaders will provide you with brilliant ideas on how to make the camp more secure. Establish ownership of fighting positions and guard towers. Frequent rehearsals and alerts will keep the soldiers on their toes and aware of the defense plan. The construction of the perimeter defense may conflict with their other duties, but it has to be completed nonetheless. Schedule the first few camp alerts to reduce interference and increase participation. Pass on to the next unit the uncompleted priority of work and the good ideas that ran out of time.

Inspect. Relentlessly enforce standards. Conduct an inspection of the guard force before these soldiers assume duty. If a soldier does not know the rules of engagement and the local phrase for "Stop or I'll shoot!"—and if he doesn't have a clean weapon—he does not pull guard duty. Do not let an untrained soldier guard your perimeter. Inspect the guards every day and night, and quiz them on what they would do in a given situation. Take a 3x5 card with you and note the guard posts that need repair, the corner that needs a light, the tree that needs trimming, the great idea before it slips away; then see that it gets fixed. Tell the SOG what you saw. Examine and reexamine perimeter weaknesses, and be critical.

Combine standard defense doctrine with a little innovation and a lot of work, and you will be well on your way toward developing an effective base defense.

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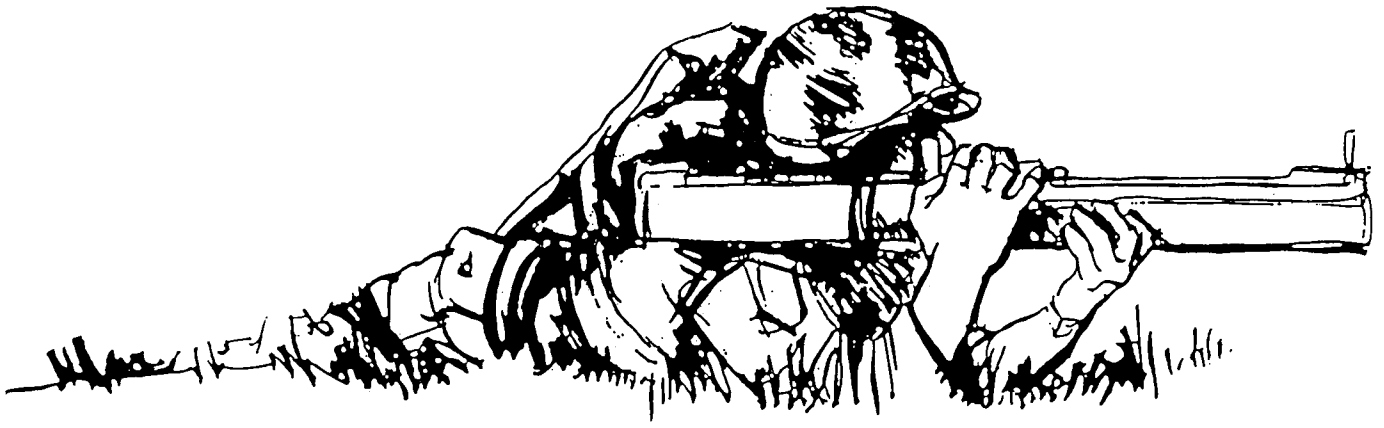


Tactical Employment of the Shoulder-Fired Rocket

New Tactics for the New LAW

Lieutenant Colonel Michael R. Harris, U.S. Army, Retired

Infantry defensive operations in the past have demonstrated the effects of combining and integrating mortars and machineguns. A hail of machinegun fire mows down the advancing enemy infantry, slowing or even halting its advance. The enemy is forced to seek shelter and concentrate in areas that are dead space to the machineguns, where he is then hit with pre-planned mortar fire. Finally forced to move from under the mortar barrage, he is driven into the machineguns' kill zones. This is a fundamental, long-established, and successful concept of infantry doctrine.

Offensive operations, on the other hand, have shown surprisingly little effect from supporting indirect fires. The offensive counterpart to achieving such a devastating tactical effect is to team the attacking infantry with armor. The tanks can maintain the momentum, giving the infantrymen some protection from machinegun bullets and preventing them from becoming a concentrated and stationary mortar target. The massive direct fire from the tank gun keeps machinegun emplacements and rifle strong points from holding up the advance. As with the defensive tactic, the tank-infantry team is also a fundamental infantry concept and a cornerstone of combined arms doctrine.

The question arises as to the corollary for Marine, light infantry, airborne, air assault, and special operations forces engaged in small-unit operations with no significant armored threat or support. Operations other than war, or even regional conflicts in many parts of the world, do not involve major armor engagements or even heavy artillery. The vision of small units in ambiguous and fluid situations—engaging in brief, sharp firefights and supported by aerial fire support and calls for resupply—calls for light, organic, and tactically decisive direct-fire weapons. Proactive offensive operations—raids, ambushes, and assaults on strongholds in fortified or built-up areas, executed with surprise and shock—will be the key to resolving the issue with minimal casualties.

Historical analysis may offer evidence of another fundamental concept that has not yet been fully exploited in infantry doctrine to enhance the offensive capabilities of light forces. Consider the shock action achieved by the integration of massed shoulder-fired rockets with the squad automatic weapon. In World War II, the 2.36-inch bazooka was fielded in the weapons squad along with the medium machinegun. The bazooka functioned as a crew-served antitank and anti-machinegun bunker weapon. Its tactical evolution was in some ways limited by the basis of issue. Office of Strategic Services (OSS) operational teams behind the lines evolved tactics with the resistance groups in which they employed elements heavily equipped with squad automatic weapons—Browning automatic

rifles (BARs) or British Brens—and with large numbers of bazookas. This weapon concept, even with lightly equipped and poorly trained resistance fighters, brought devastating results in raids, ambushes, and attacks on isolated German and Japanese positions. The German Panzerfaust—combined with the MG-42 machinegun, MP-44 assault rifle, and MP-40 submachinegun in squad and platoon size elements—again showed extraordinary battlefield capability in close combat, delaying the overwhelming mass of U.S. and Soviet mechanized attacks in restrictive terrain.

The length and bulk of the U.S. bazooka launcher and the basis of issue hampered the development of this concept with U.S. infantry through World War II and the Korean war. Because of the limited number of bazookas available to soldiers and the cumbersome nature of the flame-thrower, eliminating machinegun bunkers during amphibious and jungle operations was a costly game of engaging the bunker openings with BARs and machineguns and then stalking close enough to throw a grenade inside. The inadequacy of the 2.36-inch bazooka against the later German tanks and the Russia T-34 tank in Korea drove the development of the 3.5-inch bazooka, and began the armor-versus-antiarmor development cycle that influenced infantry light antitank weapon programs through the 1980s.

In the early 1960s, the M72 LAW solved the major problems with the development of the shoulder-fired rocket as an infantry weapon.

In the early 1960s, the M72 LAW (light antitank weapon) solved the major problems with the development of the shoulder-fired rocket as an infantry weapon. Light and compact, it was issued as a round of ammunition rather than a crew-served weapon, which enabled the always overloaded infantrymen to carry a significant number. Thus, the employment of the shoulder-fired rocket as a general purpose weapon was more flexible, and it could be tailored to the mission and enemy situation.

Advances in armor, however, led to the over-specialization of the shoulder-fired rocket as a tank killer, and the failure of the Army's Viper program led to the eventual adoption of the Swedish AT4. The requirement to penetrate the frontal armor of the enemy main battle tank made the heavy antitank missiles and the M1 tank the focus of doctrine and weapon development. Even though the LAW was of marginal use in an AirLand Battle-style armored engagement, it was ideal for tank fighting in built-up areas, while the additional weight and bulk of the AT4 served to limit the number that could be carried to one per rifleman. Warhead and fuzing development focused entirely on the tank target. The sheer weight of the system established a limited basis of issue and therefore limited the development of tactics and techniques that would move the shoulder-fired rocket beyond tank killing and make it an integrated element of infantry close combat.

Fighting armor with such light weapons as the LAW is akin to facing a wooly mammoth with a stone-tipped spear. The hunter must realize that his weapon has limited penetration and will make only a very small hole in a very large and dangerous monster. The hunter must be able to visualize the location of all the beast's vital organs, in three dimensions, from all angles, and while it is moving. He must pick the spot that will allow the penetrator to reach a vital organ, strike quickly without exposing himself, and make sure he doesn't miss. The beast can be killed only by aiming to penetrate the heart, major blood vessels, the spine, or—in our case—the driver, gunner, engine, transmission, or ammunition and fuel storage. Hitting an armored vehicle anywhere else is like poking the mammoth with a sharp stick. Tank fighting, like mammoth hunting, is best done when you can blind, confuse, and channel the monster so a team of hunters can make a coordinated attack from the flanks and rear.

Since their development in World War II by the U.S. and Germany, shoulder-fired rockets have proved to be devastating weapons in the hands of both our enemies and our allies. A historical analysis of fire fights in Vietnam shows numerous incidents in which U.S. and Army of the Republic of Vietnam units came under attack in ambushes, meeting engagements, or attacks on base camps. In a scenario that was repeated over and over, units were pinned down under intense automatic weapons fire and subjected to intense assaults from rocket-propelled grenades (RPGs). The enemy not only engaged bunkers and machinegun positions but fired on individual foxholes, groups of soldiers, any concentration of organized resistance, vehicles, and even helicopters. This scenario was repeated in El Salvador and as recently as the Rangers' 1993 firefight in Mogadishu, where again troops under intense small-arms fire were subjected to a stream of incoming RPGs. The British used large numbers of M72 LAWs in the Falklands to blast their way into Argentinean fortifications. Once entry could be forced through the enemy bunker line, all resistance collapsed.

There are several important lessons from this historical analysis that still need to be learned and emphasized in doctrine. As both sides struggle to get the upper hand in the chaos of close combat, the first side to falter and break will pay the heaviest price. Exploiting opportunity and seizing the initiative depend upon timing and flexibility. In these situations, organic direct-fire weapon crews often fail to get on target rapidly and then don't fire enough rounds to have a decisive effect. Most of the casualties are inflicted in the first burst of fire; then the ratio of casualties to ammunition expended rapidly diminishes. Given the opportunity to initiate the engagement, always use the most powerful and responsive weapon at your disposal.

Advances in armor led to the over-specialization of the shoulder-fired rocket as a tank killer.

The M72 LAW's light weight and compact size allow each soldier to carry a significant number of rounds. The LAW is

short enough to be strapped horizontally across the top of the rucksack so that a soldier can parachute, rappel, or climb with three or four rounds. Employed in this manner, the LAWs are dispersed throughout the unit, making it more likely that the soldier who ends up in a position to make the critical shot will have the appropriate weapon. Its simple operation allows rapid engagements, even in awkward firing positions and confined spaces. At eight pounds, the new A-series LAW (M72A4, A5, or A6) weighs approximately half as much as the AT4 and has about one-third the bulk. The flat trajectory and short time of flight for these weapons increase the probability of a hit—despite range estimation errors, winds, or target movement—out to the operational range of 350 meters.

The LAW is most accurate when fired from a supported position. The new A-series trigger and a supported position eliminate the tendency to depress the weapon when pushing down on the trigger bar. Supporting the barrel with the shoulder and a forward support while maintaining gentle but firm downward pressure with the firing hand allows smooth tracking and prevents movement as the trigger bar is pressed. Firing from the prone position, supported over a sandbag, is extremely accurate but difficult in most scenarios. An alternative is to drop to the kneeling position (both knees), or a sitting position, and use the M16 or M4 as a shooting stick or monopod. Turn the rifle sideways and rest the LAW on the front sight support and against the barrel. If the rifle barrel is too hot to touch, loop the sling over the LAW to hold it in place. These three points of contact, with the weight of the firing hand pulling down against the shoulder and the forward support of the rifle, allows the firer to depress the trigger bar without moving the sights. Angling the rifle toward or away from the gunner adjusts elevation.

Firing at night can be supported with illumination rounds or hand-fired parachute flares; or, by the addition of the new sight bracket, an array of infrared lasers (AN/PAQ-4), night vision sights (AN/PVS-4), or even the thermal weapons sight can be attached and boresighted for non-illuminated attacks.

The enhanced warheads of the A-series provide AT4-class armor penetration with 350mm for the M72A4 and 300mm for the M72A5. The M72A6 is an ideal general-purpose weapon, with its penetration of 150mm of armor for lightly armored vehicles such as armored cars, BTRs, BMPs, and—as in Somalia—"technical vehicles" with enhanced target destruction. The M72A6 uses an explosively formed penetrator instead of a tightly focused shaped charge. This reduces the thickness of armor penetration but makes a much larger hole, with more spall and larger fragments for increased damage behind the wall or inside the armored vehicle. While all three M72 warheads are designed to protect the gunner by reducing the number of fragments projected toward the rear, they have an unappreciated casualty-producing effect to the sides. Firing LAWs into enemy positions or through openings, instead of against the outsides of structures, produces a significant blast effect. Detonating the .75-pound Octol/PBXN9 warhead explosive charge generates a lethal fragment radius of approximately nine meters to the sides, in addition to the shaped charge jet and the fragments directed forward. The new warheads combined with volley firing provide a devastating and decisive organic direct-fire capability.

Tank fighting, like wooly mammoth hunting, is best done when you can blind, confuse, and channel the monster as a team of hunters can make a coordinated attack from the flanks and rear.

The LAW is ideal for several more specialized tactics and techniques in special situations. Rocket raids, ambushes, stand-off, and remotely initiated attacks enhance battlefield capability through the innovative techniques of employing a standard weapon.

The M72 LAW's light weight and compact size allow each soldier to carry a significant number of rounds.

The typical squad or platoon size raid establishes security positions to isolate the objective, sites the machineguns on the flank, and has the assault force infiltrate as close as possible. The machinegun opens up to initiate the raid, distributing fire over the objective to suppress the target until this fire is masked by the assault element. Commanders should consider having the assault element take one machinegun while the supporting guns remain in position or displace forward to defend the objective, depending on the tactical situation.

The rocket raid applies the concept of overwhelming direct fire. Once the security elements have isolated the objective, the assault element stalks as close as possible and initiates the attack by volley firing LAWs into the target. Volley fire was established originally to increase the probability of kill against a single tank; two or three soldiers would engage the same tank at once or in series. Their individual estimations of range and lead would ensure one or two hits, and with multiple hits achieve a reasonable kill probability.

In the rocket raid, each soldier not equipped with a machinegun fires at least one LAW into the objective. Critical targets or threats—including machinegun emplacements, command or observation posts, combat vehicles, or mission targets such as radar or communication vans, missiles, and parked aircraft—are assigned three LAWs. Bunkers or fighting positions at the point of attack are assigned two LAWs and all other significant targets one each. The simultaneous firing of ten to 20 LAWs into the objective provides the shock, confusion, and destruction to open the way for the assault force to bound forward using its machineguns in the assault and additional LAWs to overwhelm any remaining pockets of resistance.

With its extended range and accuracy, the new LAW is capable of a stand-off attack of the raid target. If the mission of the raid is to destroy bulk fuel or ammunition dumps, parked aircraft, missiles, communication, intelligence, or radar systems, a stand-off attack of volley firing LAWs offers several

advantages. The patrol can attack from outside such protective measures as barbed wire, observation posts, dog patrols, minefields, and the range of low-quality night-vision equipment. These targets are large, and gunners using steady supported firing positions have a high probability of hit that is further enhanced by having three gunners assigned to a critical target.

Indirect LAW fire can attack area targets such as airfields, bulk ammunition, or fuel sites, and harass or deceive positions. The tubes are extended and propped up with crossed sticks or sandbags and sighted along the tube for line-of-sight to the target or on a compass bearing. The elevation is set with a gunner's quadrant or the incline scale on an M2 compass if mils are used, or a simple protractor with a string and weight attached as an expedient quadrant if degrees are used to achieve the required range.

Elevations in mils and degrees are shown in the accompanying table; elevations can be extrapolated for ranges between the values given. If the target is below the launch site, subtract one-half the difference in altitude from the range, and if above, add one-half the difference in altitude to the range. A rough wind correction can be added by multiplying the wind speed in meters per second by the time of flight and adding that to the range of head winds, subtracting for tail winds, offset aiming upwind for crosswinds. This table is used to calculate a crosswind correction in mils by multiplying the wind speed in knots by the wind correction factor for the range and adding or subtracting the result to target bearing.

Another soldier can elevate the weapon using the quadrant while the gunner handles direction and firing, or the LAWs can be sandbagged in firing position and rigged for command firing and command initiated or connected to a timer.

The rocket ambush follows a similar concept with the entire assault force volley firing LAWs into the kill zone to initiate the ambush instead of using the conventional burst of machinegun fire. This technique is particularly useful in a hasty ambush where the preparation time is limited and the enemy situation is not fully known. When the ambush includes prior knowledge and channeling of enemy movement, the LAW can be effectively employed as an expedient remotely activated off-route mine. The LAW is extended and sandbagged into a concealed position to fire down or angling across the road, aligned about one meter above the road, opposite an identifiable aiming point. An electric blasting cap is taped to the trigger with the closed end of the cap to the front of the trigger bar. Several weapons can be connected in series using electric caps. The end of a strand of detonation cord can be used in place of the cap. Care must be taken to keep the cord away from the launch tube or to protect it with sandbags to prevent damage to or collapse of the tube from firing the cap or detonation cord. The LAWs are then command-fired when a vehicle is in line with the aiming point. Combined with claymore mines, a devastating mechanical ambush can be emplaced and fired by remote command, allowing a small force to engage a far superior force with minimum risk and then assault or withdraw in the ensuing confusion.

Indirect LAW fire can attack area targets such as airfields, bulk ammunition or fuel sites, and harass or deceive positions.

Employed as an expedient off-route mine, the LAW can be concealed on the side of a road or trail, placed overhead in trees, through loopholes in buildings, or on roofs and sighted to fire down into the center of the road. A field-expedient clothespin or double-loop switch is connected to a trip wire strung high enough to avoid detection but low enough to catch the tops of vehicles or their antennas. A battery and electric cap taped to the trigger bar complete the system. A standard pull booby-trap device with a non-electric cap can be attached to the LAW with the cap on the trigger bar and the trip wire run through a hole in the front sight. The LAW is secured to fire down the trip wire like a swivel gun.

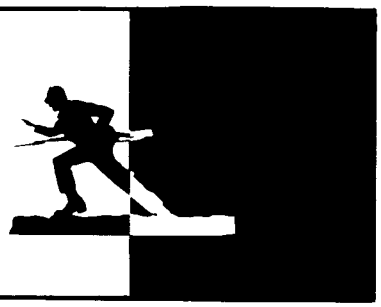
The new LAW offers a significant increase in firepower for light forces.

Any number of pressure, pull, magnetic, or motion type sensors or timers can be connected with electric or non-electric firing systems to fire one or more LAWs. The gunner must remember to pick the point where the LAW is to hit, aim and secure the LAW in place, rig the firing system, check and camouflage everything, withdraw extra personnel, arm the LAW, and arm the firing circuit. The gunner should submit a hasty minefield report and, if possible, include a self-destruct timer, such as the M147 time-delay firing device, in the system to limit the risk of fratricide when the situation does not allow the disarming and recovery of the weapons.

The new LAW—the latest in lightweight high-tech weapons—offers a significant increase in firepower for light forces. It is a classic example of what can be achieved by the evolution of a proven weapon system through a product improvement program that focuses on the basics—such as range, accuracy, and lethality—without the problems of increased weight, cost, training, maintenance, and lower reliability associated with most new high-tech weapon developments. Innovative tactics and techniques are needed to exploit new equipment capabilities, and these can enhance the battlefield capability of our most versatile combat system—the light fighters.

Lieutenant Colonel Michael R. Harris, U.S. Army, retired, served in operational units in Panama and Fort Bragg and in combat development activities at Fort Benning, Fort Lewis, and Fort Bragg. During Operation *Desert Storm,* he was assigned to Special Operations Command Central in Kuwait. He also served in the U.S. Special Operations Command. He holds a master's degree from the Florida Institute of Technology.

TRAINING NOTES



The Accelerated
Task Force Decision Making Process

CAPTAIN NORBERT B. JOCZ

The military decision making process is hard to execute. Observations at the National Training Center (NTC) suggest that battalion task force staffs have tremendous difficulty in planning, organizing, and issuing a timely and concise order that subordinates understand. The current process focuses on methodology instead of a rapid solution.

Our Army has suffered countless doctrinal gyrations in the form of new acronyms, buzzwords, phrases, and procedures to take us through this lonely process. Through the maze of checklists, we have lost sight of our goal—the rapid defeat of the enemy. The desired process requires discipline in thinking. The procedures and their products are not ends in themselves. The logic followed in the process must be the focus of our efforts.

Information is power. From information we make decisions. Lack of information may result in poor decisions or none at all. Waiting for information delays decisions, and in combat late decisions are usually bad ones. Incomplete information is the environment of war. Understanding this and getting accustomed to a disciplined thought process that guides us will improve our decision making abilities.

As an observer-controller at the NTC, I had an opportunity to see many units suffering through the decision making process. A trend I observed was that task forces spend too much time producing detailed orders and not enough time supervising the subordinates who will carry out those orders. The process these units follow is inflexible. They rigidly adhere to the specifics of the plan and rarely display flexibility or agility during execution. Their inability to develop timely plans and orders results from a misunderstanding of what it takes to defeat the enemy.

The procedures and their products are not ends in themselves. The logic followed in the process must be the focus of our efforts.

General George S. Patton clearly understood the requirements for effective decision making. Some excerpts from his Letter of Instruction Number 1 show his remarkable grasp of the procedures his subordinates should follow in developing and executing orders:

In carrying out a mission, the promulgation of the order represents not over ten per cent of your responsibility. The remaining ninety per cent consists in assuring by means of personal supervision on the ground, by yourself and your staff, proper and vigorous execution....

The order itself will be short, accompanied by a sketch—it tells us what to do, not how....

Keep your own orders short; get them out in time; issue them personally by voice when you can. In battle it is always easier for the senior to go up than for the junior to come back for the issuance of orders.

The accelerated decision making process (Table 1) essentially follows the current process. The major difference is that it does not develop more than one course of action (COA). In addition, the commander is more involved in giving guidance to his staff. The incorporation of the troop-leading procedures must be based on the situation. The process is a guide to organizing a task force staff and developing plans and orders. Time alone dictates what can be done and to what degree of detail.

The following is a summary that explains each step of the accelerated decision making process:

Receive warning order/mission. Upon receipt of a warning order (WARNORD), the subordinate unit must also issue one. Staffs must share information with subordinates to provide focus and save time. These actions facilitate parallel planning. Even if the infor-

mation is vague, units can conduct precombat checks and inspections to prepare for future operations. In fact, the more detailed the WARNORD, the simpler it is to convey the final plan.

Develop the time plan. To improve speed in our operations, we must plan the use of time in detail. The enforcement of this idea gives direction to the staff and the unit. Although the one-third, two-thirds rule is an excellent guide, subordinates should be given as much time as possible. Since rapid action gives us the initiative, it is imperative that the commander and staff continually look at the time plan.

Task forces spend too much time producing detailed orders and not enough time supervising the subordinates who will carry out those orders.

Determine the facts and assumptions. The purpose of determining facts and assumptions is to prepare a situation update brief to the commander and staff as a part of mission analysis. To begin the analysis of the task force mission, the staff collects information from the brigade operations order (OPORD) and from within the task force.

It is important to remember that the idea is not for the staff to develop a list of facts and assumptions, but to concentrate on discerning the facts that will affect the operation. (Facts are known pieces of information that affect the operation; assumptions are logical predictions of future events. Current task force strength is a fact; the enemy's most likely COA is an assumption.)

Conduct the intelligence preparation of the battlefield (IPB). The IPB is a continuing process, constantly updated. As a part of mission analysis, the S-2 must provide information to the staff and commander. As a minimum, he identifies enemy capabilities, strengths, weaknesses, and vulnerabilities. A COA is developed that attacks enemy weaknesses and avoids enemy strengths.

Conduct the mission analysis. Developing a time plan, listing facts and assumptions and conducting the IPB process are all part of mission analysis. By reviewing the OPORD from the higher headquarters, each staff section identifies its tasks, restrictions, and constraints. In addition, it identifies information that the staff will need to do its job.

Brief the mission analysis. The mission analysis briefing (Table 2) is the distilled presentation of the higher unit's OPORD as it pertains to the task force and the enemy. It enables the commander to identify what he must accomplish. A situation update must be included in the mission analysis briefing. It is a snapshot of the task force's current and predicted strength and capabilities. Don't confuse the issue by separating the briefs; it's all mission analysis. A poor briefing wastes the commander's time. We cannot develop a reasonable plan without a clear understanding of ourselves and the enemy.

Select COA and issue commander's guidance. The commander—on the basis of the mission analysis brief and following the troop-leading procedures—can develop a concept of the operation. This is the crucial point in the process. The plan developed by the commander and staff must be simple and realistic. Before he can give any worthwhile guidance, the commander must do his homework well. Based on his concept, he must present his guidance in detail. By following a set procedure (Table 3) in presenting his guidance, he saves time and ensures that enough information is provided. Detail is essential. Generalities confuse the issue and can lead the staff in the wrong direction. Commanders who are detailed and sketch out their concept give their staffs focus.

Wargame, synchronize, develop decision support template (DST). Experience at the combat training centers indicate that most task force staffs do not wargame effectively. One reason is that, at the task force level, our current doctrine fails to provide techniques and procedures on how a staff can wargame efficiently with limited time.

The purpose of wargaming is to "fight" the battle before the battle starts. The focus of wargaming is to synchronize all the combat multipliers to defeat the enemy. The end products of the wargame are a synchronized plan and a DST. The DST "identifies critical events and threat activities relative to time and location which may require tactical decisions."

There are many techniques for ensuring that the COA wargamed is synchronized. A quick and efficient method at task force level is a synchronization matrix. Critical events are identified and wargamed by battlefield operating system (BOS), with four columns, headed *Action, Reaction, Counteraction, Reaction.*

The box method of wargaming critical events is usually the most time efficient. By focusing the process on a specific area (or box) of the battlefield, it allows the staff to allocate time to wargaming events based on priorities. This requires combat force ratio comparisons by platoon. Tracking enemy and friendly attrition is also important to ensure the attainment and sustainment of the most favorable force ratio. The focus of the wargame is to fight the enemy, not to develop a detailed scheme of maneuver. Many units spend too much time looking at themselves instead of at "fighting."

Conduct oral OPORD. Unfortunately, many task force staffs think their ultimate responsibility is to develop and deliver a written product—the OPORD. But the product itself is not the end. The focus of the process is a good plan, clearly understood and timely. Lots of paper does not make a good OPORD. Task force OPORDs have become monsters and are often confusing and worthless. If time is short, issue the paper after the briefing. Timely graphics are more valuable.

The checklists and graphs of a decision making process will not solve our problems. But a reasoned approach to defeating the enemy, along with conveying the concept to our subordinates, will give us the edge.

Conduct OPORD backbrief. Backbriefs following the oral OPORD ensure that subordinates understand their mission. But this must be more than a

ACCELERATED DECISION MAKING PROCESS

TF PROCESS	TF PRODUCT
Receive WARNORD(s)	WARNORD
Receive Mission	WARNORD
Develop Time Plan	
List Facts and Assumptions	
IPB and Mission Analysis	WARNORD with Time Line
Mission Analysis Brief	
Commander Select COA	WARNORD
Commander's Guidance	
Wargame	
Synchronize	
Develop DST	WARNORD
Oral Order OPORD/Backbrief	

Table 1

MISSION ANALYSIS BRIEF

S-2:

DEFENSE

- Terrain analysis within TF sector.
- Effects of weather on operations.
- Specified/implied tasks. Restrictions, constraints, requests for information (RFIs).
- Refined situational template (often limited refinement because of time).
  - Avenues of approach (AOAs), mobility corridors.
  - Recon, air, dismounted AOAs.
  - Template possible formation of attack—enemy COAs.
  - Deployment lines/time phase lines.
  - Space between echelons.
  - Artillery ranges, location of regimental artillery group (RAG) and division artillery group (DAG).
  - Landing zones.
  - Use of chemicals, where and when.
- Enemy mission, expected time of attack, reconnaissance time.
- Enemy capabilities, strengths, vulnerabilities, weaknesses.
- Recommended priority intelligence requirements.

OFFENSE

Same as for defense except for:
- Refined SITEMP.
  - Motorized rifle company (MRC) and motorized rifle platoon (MRP) locations—by vehicle. Disposition, composition, CSOPs, SOPs, ambush locations.
- Kill sacks.
- Obstacles in sector—disposition, composition.
- Artillery locations and ranges.
- Subsequent enemy locations/positions.
- What is confirmed and templated.
- Use of chemicals, where and when.

XO:

- 2X higher mission.
- Higher mission.
- Specified tasks (for all BOSs).
- Implied tasks (for all BOSs).
- Essential tasks (for all BOSs).
- Restrictions.
- Constraints.
- Requests for information.
- TF mission statement.

S-1:

- Current personnel status.
  - Status of all organic units.
  - Status of attachments.
- Activity of Units: Status of personnel reconstitution.
  - Replacements.
  - Return to duty.
- Forecasted personnel status.
  - Organic unit status at mission time.
  - Attachment status at mission time.

FSO:

- Indirect support.
  - DS Battalion.
  - Number of tubes.
  - Number of mortars.
  - Unit with priority.
- Close air support.
  - Aircraft.
  - Munitions.
  - Limitations of aircraft and weapons.
- Ammunition available.
  - Smoke: length and time.
  - Family of scatterable mines (FASCAM): number, delivery times.
  - Copperhead: number.
  - Dual-purpose improved conventional munitions: effects on templated enemy.
  - High-explosive (HE): effects on templated enemy.
  - Mortar HE: number of rounds, equate to minutes of suppression.
  - Mortar smoke: length and time (currently no 4.2 available).
- Observer status.
  - Fire support vehicles: capabilities of each.
  - Combat observer lasing teams: capabilities of each.
  - Air liaison officer.
- Brigade fire plan.

Engineer:

- Enemy engineer capabilities: equipment and what we can expect to see on the ground.
- Assets available/projected.
  - Squads.
  - Armored combat earthmover/dozer.
  - Plows.
  - Rollers
  - Combat engineer vehicles.
  - AVLBs.
  - AVLMs.
  - Mine clearing line charges.
  - Number of lanes (4mx100m).
  - Volcano/reloads.
  - Modular-packed mine system.
  - Turn minefields (500mx320m).
  - Block minefields (500mx320m).
  - Fix minefields (250mx120m).
  - Disrupt minefields (250mx100m).
  - FASCAM.
- Engineer constraints.
  - Zones (Division).
  - Belts (Brigade).
- Engineer time analysis.
- Recommendation for situational obstacles.
- Recommendation for commanders critical information requirements (CCIRs).

S-4:

- Current vehicle status.
- Forecasted vehicle status.
- Forecasted weapon status
- Supply status.
  - Class I.
  - Class III.
  - Class IV (number dismount positions).
- Transportation assets.

Table 2

COMMANDER'S GUIDANCE

- **Enemy courses of action.**
- **Restated mission.**
- **Commander's intent:**
  - **Identification of decisive point.**
  - **Desired effects on the enemy.**
- **Concept of the operation—approved COA.**
- **BOSs.**
- **Deception objective (if applicable).**
- **Priorities—CCIRs.**
- **Approved time plan.**
- **Type of order to issue.**
- **Type of rehearsals to conduct.**

Table 3

repetition of the OPORD. Unit commanders must identify their essential tasks and convey their missions to the task force commander.

In addition to the backbrief, the task force needs to conduct a detailed rehearsal. There are many types of rehearsals and obviously the more detailed the better, depending on the available time. Like the wargame, specific time is allocated to the events identified for rehearsal. The task force commander must prioritize these events and run the rehearsal.

The plan is irrelevant if the situation is not as anticipated. As part of the rehearsal, possible contingencies, as envisioned by the commander, must be addressed. During the execution of the mission, some task forces have a bad habit of fighting the plan instead of the enemy. Adapting to the situation, within the framework of the intent, must be the common understanding.

The checklists and graphs of a decision making process will not solve our problems. But a reasoned approach to defeating the enemy, along with conveying the concept to our subordinates, will give us the edge. Our only measure is success or failure in battle.

Captain Norbert B. Jocz served as a scout and battle staff trainer, on the Dragon live-fire team, and as chief of range operations at the NTC. He previously served in the 3d and 11th Armored Cavalry Regiments. He is a 1985 ROTC graduate of Virginia Military Institute.

Dismounted Infantry Training

A Mechanized Approach

CAPTAIN EDWARD R. GARCIA

Field Manual (FM) 25-101, *Battle Focused Training,* states that "well trained units do not train to 'peak' for selected events or at pre-determined times" but adds that "their proficiency naturally fluctuates as a result of training frequency, leader changes, key personnel turnover, new equipment fielding, and many activities that occur on an installation."

In the Republic of Korea, these observations are particularly accurate. With a hostile enemy within field artillery range, units of the 2d Infantry Division routinely turn over 99 percent of their personnel in one year, and maintaining a well-trained force is extremely challenging. The training program must be simple and efficient and, at the same time, establish continuity for the units' training.

The battle readiness of a mechanized infantry unit must include both mounted and dismounted training. Mounted training, or Bradley gunnery, is a well-established system for developing crews. Gates and other requirements verify the training level of crews by objectively evaluating their ability to execute particular tasks. An effective dismounted training plan should incorporate many of the same elements. It should be a well-established training plan with gates, or requirements, for different levels of training.

The most efficient and effective technique of training battle drills must involve performance-oriented training in a lane training format.

A logical basis for this training plan is drill training for the mechanized infantry platoon and squad. Battle drills are the essence of company and platoon training. The core of small-unit combat skills is the collective ability to execute battle drills to standard. They are in the "must know" category. By executing routine tasks routinely, a unit can maintain a high level of battle readiness. Developing a standardized program of battle drill training will establish a well-defined and structured system similar to Bradley gunnery. Incorporating standard packages of tactical and live-fire scenarios leads to maximum efficiency in training. Much as the unit conduct-of-fire trainer does for Bradley crews, the battle drill training will provide systematic, low-cost training for the dismounted infantry in the squads and platoons.

The most efficient and effective technique of training battle drills must involve performance-oriented training in a lane training format. Using practical application with clear tasks, conditions, and standards results in better understanding

BATTLE DRILL 1: BRADLEY PLATOON ATTACK

TASK: CONDUCT BRADLEY PLATOON ATTACK (DISMOUNTED)(7-3-D301)

CONDITIONS (CUE): (FROM FM 7-7J-DRILL)

STANDARDS:

REFERENCES:

TRAINING SEQUENCE: Conduct the training program in four (4) phases for each battle drill.

PHASE 1: The first phase is the supporting squad level collective task training. For the platoon attack, the primary supporting collective task is squad fire and maneuver. Begin by executing the task in unrestricted terrain to ensure that all newly assigned personnel understand all of the moving parts of the drill. Establishing situational awareness at the lowest level will increase confidence and proficiency.

Lane 1: Squad Fire and Maneuver in unrestricted terrain. This portion also includes task, conditions, and standards for the battalion SOP on squad fire and maneuver.
Lane 2: Squad Fire and Maneuver in restricted terrain.
Lane 3: Squad Fire and Maneuver live fire in restricted terrain.

Training Tips: Training tips in the packet and the unit TACSOP will provide inexperienced leaders with assistance in conducting and evaluating training.

Support Requirements:

Ammunition:	**Lane 1/2:**	**A075 5.56mm Blk Ink**	**1200**
		A080 5.56mm Blank	**1140**
	Lane 3:	**A059 5.56mm Ball**	**1170**
		A064 5.56mm MG	**900**

MILES:
Recommended training area: **Unrestricted terrain = Corregidor Field**
Restricted terrain - Area Oscar, Romeo
Live Fire = Story and Kansas ranges (see overlay)

PHASE II: The next phase is the platoon baseline and practice. Similar to the squad phase, start with the platoon battle drill in unrestricted terrain. Progress to restricted terrain, then restricted terrain in limited visibility. Each section includes Training Tips and Support Requirements to facilitate unit training and training resource management.

PHASE III: Advanced platoon battle drill execution. This includes execution on severely restricted terrain in clear and limited visibility conditions. These not only serve as training events but can also be used as rehearsals for Phase IV.

PHASE IV: Platoon battle drill live fire.

of the desired result. Performance-oriented training allows soldiers to achieve a higher degree of proficiency by requiring elements to execute tasks under more demanding conditions while standards remain constant.

Lane training is a technique for training units of company size and smaller on selected tasks using specific terrain and other resources. This lends itself to standardized packages of training, training support, and tasks, conditions, and standards that leaders can modify to fit their training needs.

In the 1st Battalion, 9th Infantry, we developed the eight battle drills into separate lane training packets and conduct dismounted lane training Tuesday through Thursday each week. Each packet includes a training sequence; tasks, conditions, and standards; training tips; standing operating procedures (SOPs); training support requirements, including ammunition; MILES equipment; recommended training area; and opposing force requirements.

The training resource requirements can be found in DA Pamphlet 350-38, *Standards in Weapons Training,* FM 7-7J-DRILL, *Battle Drills for the Bradley Fighting Vehicle Platoon, Section, and Squad,* and ARTEP 7-8 MTP, *Mission Training Plan for the Infantry Rifle Platoon and Squad.* The techniques for executing particular tasks can be standardized for the unit and incorporated into the lane training packet. Execution evaluation requires the addition of a training and evaluation outline, which can be found in the drill manual and the MTP. Thus, these are almost "off-the-shelf" packages that lay out most of the basic requirements for the drill training. The packet can be published in a pocket size that enables leaders to take it to training as a single source for tasks, conditions, and standards, unit SOPs, and training tips. As an example, an abridged version of the first battle drill lane training packet (the Bradley platoon attack) is shown in the accompanying box.

Although maintaining a high level of proficiency in training is always difficult, those challenges are magnified in the 2d Division. Standardized packets of training enable us to conduct effective training with low overhead for our dismounted squads. The off-the-shelf packets use multi-echelon scenarios to control conditions and conduct formal or informal evaluations to assess unit proficiencies accurately. An effective dismounted training program with a solid gunnery program makes the most of training for all elements, tremendously increasing the battle readiness of the mechanized infantry company.

Captain Edward R. Garcia commanded Company D, 1st Battalion, 9th Infantry, 2d Infantry Division and previously served in the 3d Battalion, 505th Infantry at Fort Bragg. He is a 1989 graduate of the United States Military Academy.

The JANUS CPX

One Battalion's Solution

MAJOR REX E. JESSUP
CAPTAIN TIMOTHY J. KELLY
COMMAND SERGEANT MAJOR JACK C. KEEFER

Using JANUS interactive simulation systems, Army Reserve and National Guard leaders at all levels can sustain the staff training tasks and tactical thought processes they need for staff readiness.

The JANUS Mediated Staff Exercise (JMSE), used inside the armory, provided our battalion of the Idaho Army National Guard—the 2d Battalion, 116th Cavalry Brigade—with a first-class command post exercise (CPX) at a bargain price. From the exercise, we learned that we had to use doctrine correctly or suffer the consequences. In the CPX, we were able to fight three battles in 30 hours. From these, the staff and commanders were then able to fight additional battles by acting on the lessons learned.

The battalion's initial feedback from its JANUS experience included the following:

- Report formats.
- Duties in the tactical operations center (TOC) and the combat trains command post (CTCP).
- Discipline of communications nets.
- Knowledge of opposing force (OPFOR) doctrine.
- Proper application of mass.
- Fire support integration.
- Speed versus haste.
- Time-distance factors and decision making.

The more problems a unit discovers and trains on during pre-mobilization, the fewer problems it will face during post-mobilization training. With repetitive executions, JANUS can help reduce post-mobilization training time for National Guard battalions such as ours.

The JMSE is part of the Reserve Component Virtual Training Program (RCVTP). An exercise for battalion staffs only, it offers full staff participation in exercises conducted in a realistic setting, with a main command post (CP) and a CTCP. Although the battalion commander is an active participant, the focus is on the actions and interactions of all staff participants. And the emphasis of the exercise is on the execution phase of the mission rather than on planning, preparation, or rehearsal.

In August 1994 the battalion was notified that it would be the first in the brigade to conduct a battalion CPX using the JANUS system. The battalion scheduled its CPXs for 28-29 January and 4-5 February 1995. The following issues had to be addressed during the preparation phase of these exercises:

- Preparation timeline—company commanders, battalion staff, special platoons.
- Simulations center layout—workstation assignment and communication overlay.
- Observer-controller team development.
- Drill hall setup.
- Exercise timeline.
- Equipment requirements.

The units had an opportunity to use sample battalion operations orders (OPORDs) for the *defense* and *movement to contact.* With these orders, the staff could concentrate on the execution portion of the exercise instead of the planning process. The area of operations for

PREPARATION TIMELINE

Oct 3 (IDT)	**Staff is issued copy of the brigade/battalion OPORD and operation sketch for the Starfighter I (Defense).**
Nov 6 (IDT)	**Issue overlays for Starfighter I. Staff studies and internalizes. Issue Starfighter II (Movement to Contact) brigade/battalion OPORDs with operations sketch.**
Nov 17 (OPD)	**Battalion commander, S-3, and S-2 issue the company commanders the Starfighter I OPORD. Company commanders backbrief the battalion commander.**
Dec 3-4 (IDT)	**Individual staff officers backbrief the battalion commander on Starfighter I. Issued overlays for Starfighter II.**
Dec 9 (OPD)	**Company commanders and battalion commander fight Starfighter I in SIMNET as a rehearsal.**
Dec 10-11 (IDT)	**Battalion interactor training on the workstations.**
Dec 15 (OPD)	**Company commanders brief their orders to the battalion commander and S-3.**
Jan 27 (IDT)	**Company commanders and staff rehearse Starfighter I on a terrain board in the armory drill hall.**
Jan 29 (IDT)	**At the end of the Starfighter I battle, company commanders receive Starfighter II OPORD.**
Feb 3 (IDT)	**Company commanders and staff rehearse Starfighter II on terrain board in drill hall.**

Table 1

both exercises was the central corridor at the National Training Center (NTC). Using the existing OPORD, along with the preparation time line (Table 1), the staff and commanders were able to prepare for the operation just as they would have done if they had actually written the order. Each primary staff officer, specialty platoon leader, and company commander received a copy of the OPORD and operations sketch to take home with them. The battalion Resident Training Detachment (RTD) issued the initial OPORDs and overlays.

The observer-controller (OC) team for the exercise was formed out of the RTD assigned to the brigade (Table 2). The Fort Knox JANUS training team provided training to the battalion and brigade RTDs from 12-16 December. During this train-up, detailed interactor training was done on the system. Half of the RTD acted as maneuver units and staffs while the other half practiced the OC functions.

The timeline for the actual CPX weekend was critical for several reasons. It helped maintain the exercise focus and also helped the battalion commander, the senior OC, and the exercise controller decide how and why to stop the exercise to emphasize key issues and then restart it. The battalion used the timeline shown in Table 3 to set up and conduct the training for the weekend.

Simulation center design (Figure 1) was critical to success. It improved exercise control, and the TOC and CTCP were able to realize the value of the simulation. The battalion was fortunate in that all the work stations were in one room. Company, special platoon, OPFOR, battalion S-3, and battalion commander work stations were effectively isolated through the use of plywood dividers. This provided a more realistic simulated battlefield environment for the players.

Communications to the work stations were handled in various ways. Each had ANGR-39s on the net it would normally use. Each ANGR-39 on the command, administrative-logistical, and fire support nets was attached to a trunk line connected to a single remote in a vehicle outside the armory. The signal was then sent by FM on the same radios the TOC and CTCP would normally use. Net discipline was still required. Table 4 shows the simulations center organization and communication requirements.

OBSERVER CONTROLLER TEAM

POSITION	
EXERCISE CONTROL GROUP	**Civilian Contractor**
OPPOSING FORCE (OPFOR)	**Fort Knox**
BRIGADE CONTROL CELL	
Senior Bde Controller	**2d Bn RTD Team Chief**
Bde Intel Replicator	**2d Bn RTD**
Bde Fire SPT Replicator	**116th Bde RTD**
Bde A&L Replicator	**2d Bn RTD**
Bde Ops Replicator	**116th Bde S-3**
Bde Asst Ops Replicator	**2d Bn RTD**
FA Bn CDR (vic FA and Mortar Plt W/S)	**148th FA Bn RTD**
O/C GROUP	
Senior O/C	**116th Bde RTD Det Cdr**
Maneuver O/C	**116th Bde RTD XO**
Intel O/C	**116th Bde S-2**
Fire Spt O/C	**148 FA Bn RTD**
Sim Ctr O/C (Co Cdrs)	**2d Bn RTD**
Sim Ctr NCO(Roving 1SG)	**2d Bn RTD**
CSS O/C	**145 SPT Bn RTD**
EN O/C	**116 EN Bn RTD**

Table 2

TIMELINE FOR WEEKEND

Tues., 24 Jan	**0800-1700**	**Set up TOC**	**Battalion AGRs**
	0800-1700	**Install Commo**	**Battalion RTD**
Wed., 25 Jan	**0800-1700**	**Data base check**	**Civilian Contractor**
	0800-1700	**Set up TOC**	**Battalion AGRs**
	0800-1700	**Install Commo**	**Battalion RTD**
Thurs, 26 Jan	**0800-1700**	**Set up TOC**	**Battalion AGRs**
	0800-1000	**Commo Check**	**Battalion RTD**
	1500-1800	**O/C Team Arrives**	**O/C Team**
Fri., 27 Jan	**0800-1700**	**O/C Team Rehearsal**	**O/C rehearsal**
	0800-1700	**Final Checks**	**RTD and AGRs**
	1930-2200	**Rehearsals**	**All Players**
Sat, 28 Jan	**0630-0900**	**Staff & SIMCENTER Prep**	**All Players**
	0900-1000	**Battle Handover (Phase I)**	**All Players**
	1000-1030	**AAR (vehicle top)**	**O/C group**
	1030-1130	**Fight 1st Echelon (Phase II)**	**All players**
	1130-1200	**AAR (vehicle top)**	**O/C Group**
	1200-1300	**Lunch**	**All Players**
	1300-1400	**Fight 2d Echelon (Phase III)**	**All Players**
	1400-1430	**AAR (vehicle top)**	**O/C Team**
	1430-1530	**Reestablish Sector**	**All Players**
	1530-1615	**Final AAR Prep**	**O/C Team**
	1630-1730	**Final AAR (vehicle top)**	**O/C Team**
Sun, 29 Jan	**0615-0830**	**Staff and SIMCENTER Prep**	**All Players**
	0900-1200	**Fight (all three phases)**	**All Players**
	1200-1245	**Final AAR Prep**	**O/C Team**
	1300-1400	**Final AAR (vehicle top)**	**All Players**
	1430-1630	**Change of Mission**	**Unit**

Table 3

The maneuver company work stations—manned by the company commander, fire support officer (FSO), first sergeant (1SG), and computer interactor—operated on fire support, command, and admin-log nets as they normally would. The specialty platoons, battalion S-3, and battalion commander operated on the appropriate communication nets and executed their respective missions. The S-3 work station with its communications, plywood partitions, and computer appeared as shown in Figure 2. While the Fort Knox RCVTP uses professional interactors in the company com-

mander and specialty platoon roles, our battalion used its actual commanders and specialty platoon leaders. This permitted the TOC and CTCP to train with the battalion as a team.

The brigade control cell was manned by three captains, one warrant officer, and one noncommissioned officer (NCO) with the following responsibilities:

One of the captains acted as brigade controller, tracking the operation of both forces on his own visual display screen, monitoring the task force command net, notifying OCs of major events and issues, logging event times for after-action reviews (AARs), and ensuring that brigade scripts stayed synchronized with training objectives. He collected printouts of the battle in support of the senior controllers' AAR development process.

A second captain was the radiotelephone operator (RTO), reading the script on the brigade command net, maintaining the information flow from the brigade headquarters to the training task force, and inserting prompts of information to the training task force as required. He also tracked and developed key AAR issues.

The third captain was the RTO reading the script for the brigade fire support nets, maintaining the information flow to the training task force fire support element, and allocating brigade fire support assets to the task force as required.

The warrant officer was the RTO reading the script for the brigade operations and intelligence (O&I) net, maintaining the information flow to the training task force S-2 section, inserting prompts when required.

The NCO served as the battle damage assessment recorder for both the OPFOR and the exercise force and helped monitor the brigade O&I and command nets.

Since extreme weather conditions in South Central Idaho in January and February are not uncommon, the organization of the drill hall was also important. The TOC and CTCP were positioned inside the drill hall to put these elements in a training mode instead of a survival mode. The vehicles were located so the 4.2-kilowatt generators could be outside the drill hall. There was also a requirement to establish and operate a rehearsal and an AAR site, which was a critical issue during the preparation phase, when players and controllers were learning the system.

The execution phase of the exercise was easier in many respects than the preparatory phase. The early wargaming and preparation allowed the exercise to run according to the schedule. The evening before the exercise, the unit conducted a rehearsal with the players on a terrain board (1 foot = 1,000 meters view of the

COMMUNICATION REQUIREMENTS

	ANGR-39	AN/PRC-77	AN/PRC-127
BATTALION COMMANDER			
Brigade Command		X	
Battalion Command	X		
Fire Support	X		
BATTALION S-3			
Brigade Command		X	
Battalion Command	X		
TANK COMPANIES (x4)			
Battalion Command	X		
Admin/Log	X		
Fire Support	X		
SCOUT AND MORTAR PLATOON			
Battalion Command	X		
Scout Platoon		X	
Fire Support	X		
FIRE SUPPORT ELEMENT			
FA Command	X		
CSS/ENG/ADA			
Battalion Command	X		
Admin/Log	X		
Engineer Company		X	
OPFOR			
OPFOR Command			X
BRIGADE OPERATIONS			
Brigade Command		X	
Brigade O&I		X	
Battalion Command	X		
Brigade Admin/Log		X	
Brigade Fire Support		X	
Exercise Control			X
COMMUNICATION TOTALS:	25	8	2

Table 4

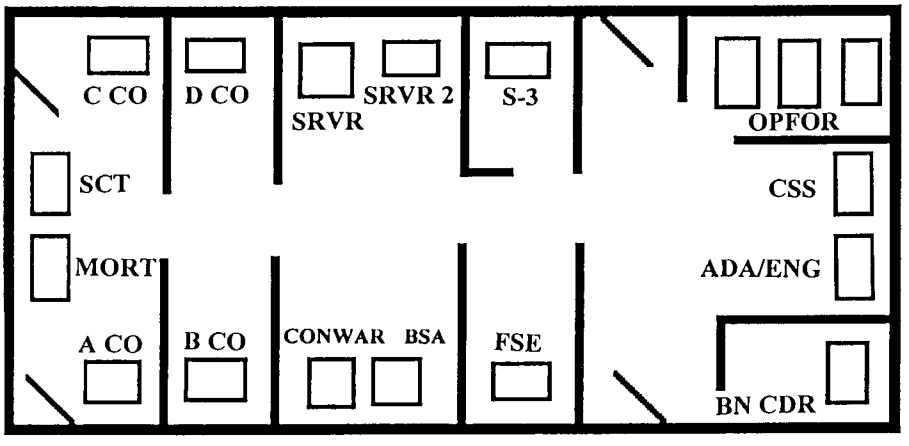


Figure 1. Simulation Center Layout

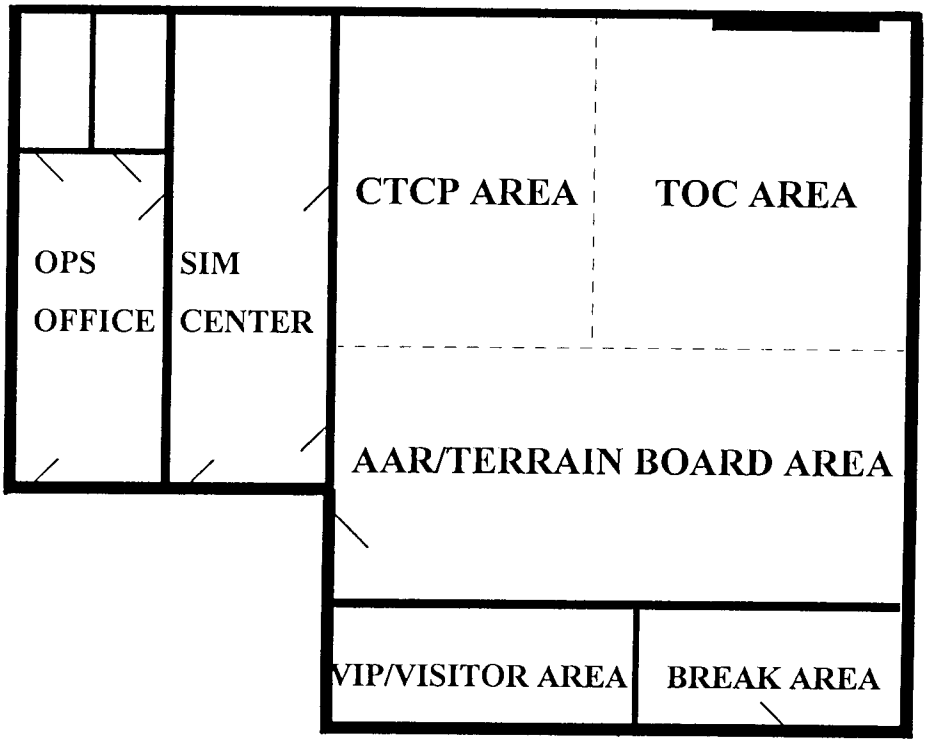


Figure 2. Armory/Drill Hall Layout

NTC central corridor). This unit rehearsal also gave the National Guard soldiers a chance to mentally shift gears and get ready to fight the battle.

The external control (EXCON) station and the brigade control station—located between the maneuver stations and the command and control, combat support (CS), and combat service support (CSS) work stations—also worked well, aided exercise control and coordination, and permitted the OCs to check the battlefield as reported to the brigade control cell by the battalion TOC and CTCP.

The 30-minute AARs on Day 1 were conducted at the duty area. The final AARs were limited to one hour by design. While many tasks to be improved upon might have been introduced, the target of the formal AAR was the identification of and focus on one or two key issues. One-hour AARs let the unit discuss the AAR and plan remedies before running another exercise. The AAR site had an overhead projector, a monitor on which to rerun the battle, a large-scale map, a dry erase board, and an easel for taking notes. The large-scale sketch map provided a quick reference for all participants.

The monitor allowed the senior OC to show the key events in the battle graphically. This type of depiction of the battle is often a revelation to a staff that is trying to paint a picture in the TOC/CTCP.

Having the TOC and CTCP in the drill hall paid high dividends. Proximity to the simulation center made the exercise control function easier. The TOC was set up to be both complete and functional (extensions out, camouflage up, communications). The TOC personnel were also in complete field duty uniform, another measure to add realism to the exercise and accustom unit members to field conditions.

This JANUS CPX was an invaluable means of training the battalion staff in those tasks essential to the operation of a tactical operations center in combat. The exercise served the dual purpose of identifying priority training to be conducted and sustaining those skills in which the unit was proficient. As a result, the 2d Battalion, 116th Cavalry Brigade is one step closer to being ready to fight and win.

Major Rex E. Jessup is assigned to the 4th Infantry Division with duty in the Resident Training Detachment, 2d Battalion, 116 Cavalry. He previously served in the 2d Armored Division and in the 1st Armor Training Brigade at Fort Knox. He is a 1980 graduate of the United States Military Academy.

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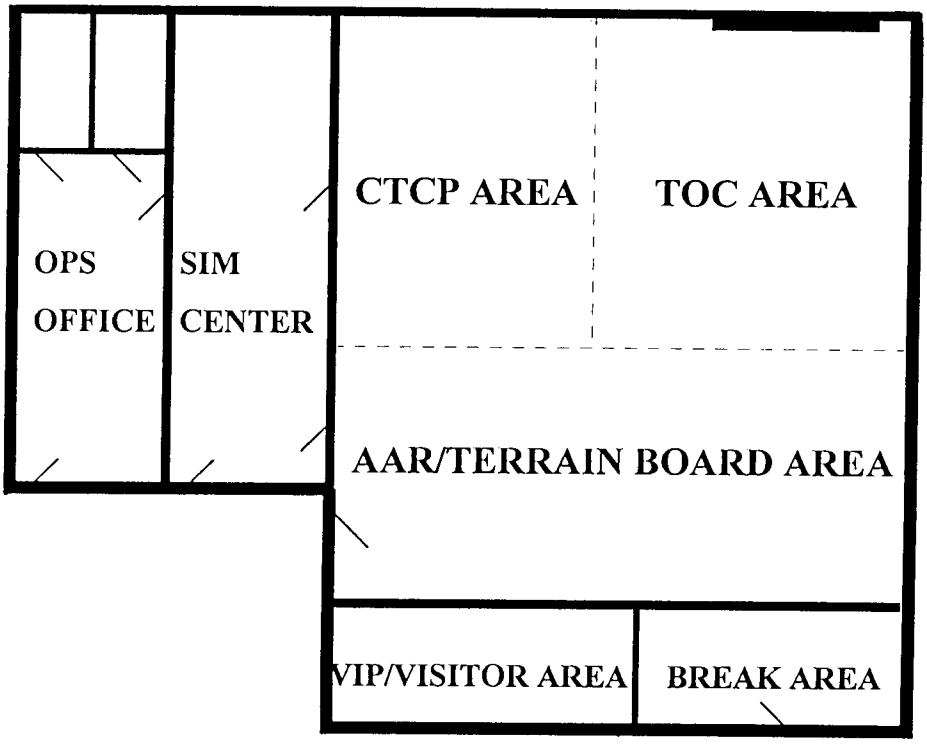
Hand-Receipt Procedures

CAPTAIN HAROLD D. BAKER, JR.

When a mechanized infantry platoon leader arrives at his new unit, he is usually eager to learn the particulars of maneuvering four Bradley fighting vehicles and two squads of dismounts on the modern battlefield. Property accountability is the farthest thing from his mind. Although he had a block of instruction on it during the Infantry Officer Basic Course, he may not have realized its importance.

Unfortunately, many platoon leaders take a casual approach to learning the



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Unfortunately, many platoon leaders take a casual approach to learning the

correct measures of property accountability, and many pay for their inattention with portions of their paychecks and some with their careers. Because of the vast amount of organizational property in a mechanized infantry platoon, maintaining and accounting for equipment are every bit as important as tactics.

A platoon leader signs for approximately $4.5 million worth of combat equipment on an organizational hand receipt. Essentially, that's four Bradleys complete, each one with 88 to 100 lines of basic issue item (BIIs), tools, and accessories. Maintaining accountability for this much equipment is never easy, but if the platoon leader takes it seriously, seeks guidance from experienced supply personnel, and establishes a system, he'll stay ahead of the game.

If you are a mechanized infantry platoon leader, the following guidelines will help you maintain positive control of your property.

The following are some things you must do as soon as you arrive and are assigned to a company and a platoon:

• Meet with the company commander and the outgoing platoon leader to schedule your inventory and change of command. In preparation for the change-over, the outgoing platoon leader should have conducted his inventory and updated his hand receipt and shortage annex with the company supply sergeant.

• Meet the company supply sergeant, and get a copy of each of the following: updated sub-hand receipt (master hand receipt) for organizational property, component sub-hand receipts, master component listing, and the shortage annex for the platoon. You will then have these on hand for your inventory, and the outgoing platoon leader will have his copies as well.

• Using the master component listing, validate equipment using a -10 manual that has all of the current changes. Know the difference between additional authorized lists (AALs), components of end items (COEIs), and BIIs. Ensure that the most recent technical manuals and supply circulars have been used for all the property and are being used for your inventory. Read them before the inventory and familiarize yourself with the characteristics of the items and equipment; there will be a lot of things you haven't seen before.

While you're inventorying and signing for equipment, have on hand a note pad, the master component listing, and your sub-hand receipt. As you discover shortages or discrepancies, annotate the name, grade, and Social Security number of the responsible sub-hand-receipt holder. Enter the shortage quantity on the blank component listing. Soldiers or the outgoing platoon leader may produce a DA Form 3161, Request for Issue or Turn-in, showing that they have turned in an item to supply or a DA Form 2062, Temporary Hand Receipt, showing that they've hand-receipted an item to another platoon or unit. In either case, make an annotation and verify the action with the supply sergeant.

A platoon leader signs for approximately $4.5 million worth of combat equipment on an organizational hand receipt.

• Check the National Stock Numbers (NSNs) of all applicable equipment, and check all items for serviceability. Don't simply take a soldier's word that an item is fully serviceable. Check it yourself. You'll have to do some homework so you'll know what you're looking for.

• Consolidate the shortages pertaining to each sub-hand receipt and ensure that appropriate adjustment documents are initiated in accordance with Army Regulation 735-5, *Property Accountability.* Although this is the responsibility of the outgoing platoon leader, you need to do a follow-up.

• Report the results of the inventory in a memorandum to the company commander.

• Ensure that the adjustment documents are processed and that hand receipts and shortage annexes are adjusted to reflect property actually on hand and requisitions submitted. That means the commander has verified and signed a new shortage annex. Only then do you actually establish property accountability and sign for the property.

After signing for your platoon, the next step is to ensure that all equipment is correctly signed out down to the user level. If you don't and something is lost, you'll pay for it. In most cases, the platoon leader is the only one signed for installation property (such as his desk or wall locker), but if the platoon sergeant or squad leaders also have offices and furniture, have them sign for it. As for major end items and their components of organizational property (BFVs and their BII), you must assign the equipment to Bradley commanders (BCs) and ensure that they assign it to their gunners, drivers, and dismounted soldiers.

• First sign over the equipment and tools associated with a vehicle to the BC (if you're the platoon leader for 2d platoon of Company B, your wingman signs for B22, your platoon sergeant signs for B24, and so on). It is technically the BCs' responsibility to sign the equipment down to the drivers and gunners, but you should take control and see that this is done properly. In other words, sit down with your NCOs and explain what they're signing for and describe the procedures for signing over the equipment and tools to their crew members. Some BCs have the driver (usually a private first class) sign for the vehicle complete, but that's not the answer.

• If you're lucky, the company supply sergeant or the previous platoon leader may have broken down the BII and tools for gunners and drivers. If not, a rule of thumb is simply to assign the equipment to the individual who uses it the most. For example, the driver should sign for everything that applies to the vehicle's hull (track extensions, drift pins), and the gunner should sign for everything that applies to the turret (gun, radios, turret tools).

• Ensure that each of the soldiers has a hard copy of his automated component sub-hand receipt, but you maintain the original in a hand-receipt book.

• None of the soldiers, including NCOs, should have a copy of the automated platoon shortage annex; it is too difficult to have them update the annex when items arrive through supply. You should maintain the shortage annex.

Then create a hand-receipt book and keep it updated. Secure it in a desk or

wall locker, and do not allow anyone access to it without your consent. This book is your method of keeping written records of items you and your subordinates are signed for; the need for proper security measures is common sense.

Break the book into sections:

Section 1—Master hand receipts (organizational, installation).

Section 2—Master shortage annexes.

Section 3—Sub-hand receipts:

Hand receipt holder to BC.

BC to driver.

BC to gunner.

Section 4—Additional/extra documents:

DA Forms 3161.

DA Forms 2062.

During your tenure, you must physically inventory the equipment and tools you're signed for. Enforce and apply the same method you used when you initially signed for the platoon. You should use the component hand receipts for inventories, because the master hand receipt lists only major end items.

The following are mandatory periodic inventories:

• Master hand receipt holder (platoon leader) physically inventories 100 percent of equipment every six months and within 72 hours upon completion of a field exercise.

• BC hand-receipt holders inventory every month and within 72 hours upon completion of a field exercise.

• Gunner and driver hand-receipt holders inventory every month and within 72 hours upon completion of a field exercise.

Plan for updates and adjustments to hand receipts and shortage annexes. Soldiers will lose or break tools and equipment, and new tools ordered against the platoon's shortage annex will arrive through the supply system. For accountability purposes, you must ensure that the proper paperwork is done. The procedures for updating hand receipts and shortage annexes vary with circumstances.

Ensure that the most recent technical manuals and supply circulars have been used for all the property and are being used for your inventory.

Lost tools:

• If a tool is missing during an inventory, the BC of that vehicle will notify you. Quickly determine how the tool was lost (negligence—a driver left a ratchet lying on the driver's hatch overnight after Monday morning's command maintenance, and now it's gone) and report it to the supply sergeant. The supply sergeants will process a DA Form 362, Statement of Charges, and the individual responsible for the tool will have a choice of going to finance and paying cash for the item or having money deducted from his pay. Maintain a copy of the DA Form 362.

• The supply sergeant will give you a DA Form 3161, which will be your means of accounting for the tool. Place it in your hand-receipt book with the shortage annexes for the vehicle or equipment for which the tool was a component. Also place the DA Form 362 with it.

• You don't make any changes to your master hand receipt or shortage annex at this time, but the BC and his crew member do. After the statement of charges is signed, both will move over one block on their automated hand receipts and make the appropriate changes.

Broken tools:

• The course of action for broken tools is somewhat the reverse of that taken for lost tools. When a tool is broken through fair wear and tear, the BC or platoon sergeant takes the broken tool and updates the soldier's hand receipts at that time.

• The BC or platoon sergeant may consolidate tools from the entire platoon or have a designated number of broken tools that he will receive before reporting it to the platoon leader. You need to establish a platoon standing operating procedure (SOP) for this.

• Each of the broken tools has an attached shoe tag containing the NSN and the end item it came from and is brought to the supply room. At this time, you adjust the BC's hand receipt.

• The supply sergeant processes the tools and gives you a DA Form 3161.

As with lost tools, file the change document with your shortage annex in the hand-receipt book.

• You do not make any changes to your master hand receipt or shortage annex at this time.

New tools:

• Six months from the date of the oldest DA Form 3161, the supply sergeant will consolidate all change documents and present them to the company commander (essentially six months after the first 3161 you received from supply for a lost or broken tool). The company commander approves the company's shortage annexes; then the battalion S-4 verifies the shortage annexes and approves the tools for requisition.

Sit down with your NCOs and explain what they're signing for and describe the procedures for signing over the equipment and tools to their crew members.

• If tools arrive in small quantities, the supply sergeant issues them on DA Forms 3161 before he completely updates your automated shortage annexes. Once all the tools arrive and are issued, the supply sergeant updates your annex and hand receipts. You must ensure that the same is done in your platoon.

• Make sure your supply sergeant aggressively pursues requisitions for replacement tools. Know when the six-month window started for your 3161s, and ask your company executive officer about the battalion's budget and when the battalion S-4 will start ordering items on the shortage annexes.

Throughout this process, you must enforce standards. Brief your soldiers on your standards of property accountability, and make sure they understand their financial responsibility for the tools and equipment for which they're signed.

Establish SOPs for garrison and field environments:

• Have a standardized marking system for tools and equipment. Use color-coded paint or tape to mark your platoon equipment. Also, engrave all tools with the bumper number of the associated vehicle.

• Instruct soldiers on how to hand-receipt items. Don't allow them to lend

tools to other platoons or companies without approval and properly completed DA Forms 2062.

• Teach them never to leave tools lying around without some form of security.

As the Army advances toward digitization and the creation of Force XXI, the complexity of property accountability increases and the margin for error decreases. Quantities and monetary value will continue to grow as mechanized and light infantry battalions field new, high-tech equipment. Tight property accountability will surely remain an essential part of being a successful platoon leader, whether light or mechanized.

Regardless of how well-prepared you may think you are, you will be overwhelmed initially by the amount of equipment for which you are suddenly responsible. Your success will be based on how seriously you undertake the task of maintaining accountability. Unfortunately, there are no short cuts.

Captain Harold D. Baker, Jr., served as a company executive officer and a battalion S-4 in the 3d Battalion, 41st Infantry, and is now assigned to Fort Bragg. He is a 1991 graduate of the United States Military Academy.

Initial Entry Training Company
METL Assessment

MAJOR JOSEPH C. SLOOP

Our victory in the Persian Gulf war clearly validated our tactical doctrine, but the training management that disseminates that doctrine is equally important. Given the drastic force reductions of the past few years, the focus on training is likely to intensify in the future, as we strive to maintain a credible level of readiness.

Company commanders must assess training constantly. Fortunately, this process is almost automatic. Every time an initial entry training (IET) company commander observes training, he makes an assessment whether he realizes it at the time or not. And the questions that arise are the same, no matter what type of company: What are the tasks, conditions, and standards? Did the unit accomplish the task to standard? If not, what resources must be applied toward the task to bring the unit up to standard? If the unit performed the task to standard, when do we conduct sustainment training?

For the past decade, rifle company commanders have assessed their units' readiness in each mission essential task against standards set forth in ARTEP 7-10, *Rifle Company Mission Training Plan (MTP),* for which the Infantry School is the proponent. And, although FM 25-101, *Battle Focused Training,* addresses the development and assessment of training company mission essential task lists (METLs) to some degree, there is no Army-wide MTP for IET companies. This article describes the efforts of the 3d Training Brigade at Fort Leonard Wood, Missouri, to provide this missing piece of training management for IET companies.

Within the training management cycle, assessment is key to conducting battle-focused training. Before assessment begins, however, the commander must make sure the unit METL is valid. The 3d Training Brigade recently gained an adjutant general battalion as a subordinate unit, adding to its missions. This caused the brigade to reexamine and revise its METL, as did each subordinate IET battalion.

The companies in the brigade submitted a proposed METL to their parent battalions. The approved company METL supports the battalion METL in that it allows the battalion to accomplish its battle tasks. As it turned out in our case, all of the company METLs were battalion battle tasks. This shows a good transition between echelons in the selection of the tasks that are critical to mission accomplishment.

The company METL serves as the basis for assessing the unit's ability to accomplish its mission. In the 3d Training Brigade, a committee of seven company commanders met to examine our IET METL and develop subtasks that would insure the accomplishment of each task. Unlike TOE units that have MTPs, we started from scratch, gathering tasks from such external directives as the basic combat training (BCT) program of instruction (POI), training support packages, and various regulations.

For example, to assess a company's ability to conduct basic rifle marksmanship (BRM) training, we identified subtasks—each with quantifiable conditions and standards from the BCT POI. In short, this committee developed company training objectives that would focus our training efforts. (See box for a breakout of these subtasks and standards.) This written assessment tool enables IET company commanders to focus the train-

BRIGADE METL

Execute training POIs.
Develop permanent party.
Conduct support operations.
Provide training opportunities to Reserve Components.

BATTALION METL

Execute BCT POIs.
Execute permanent party training programs.
Conduct administrative and logistic operations.
Advise and evaluate Reserve Components.
Care for soldiers and families.

IET COMPANY METL

Conduct soldierization.
Conduct BRM training.
Conduct physical fitness training.
Train soldiers on combat skills.
Train and develop permanent party.
Certify drill sergeants.
Plan, document, and coordinate training.
Initiate personnel actions.
Maintain and account for equipment and facilities.
Maintain a positive command climate.
Integrate new soldiers and families.
Operate a family support group.

ing effort and resources to improve their units' proficiency in a given mission essential task.

The development of subtasks and standards for company METL tasks is straightforward where explicit regulations and such documents as the BCT POI apply. For a number of mission essential tasks, however, either there are no guidelines or the regulations are broad and do not prescribe evaluation standards. One such task is the integration of new families and soldiers. The company task *Integrate new soldiers/families* is also a battalion battle task, and supports the battalion mission essential task *Care for soldiers/families.* Here, subtasks and standards are derived from the portion of the company standing operating procedures that governs in-processing and sponsorship.

Since the Infantry School is the proponent for both IET and ARTEP 7-10 MTP, we used the MTP's definitions of T, P, and U for consistency. We designated certain subtasks as critical. Failure to accomplish any critical subtask to standard results in an untrained (U) rating, while failure to accomplish one or more noncritical subtasks to standard means a unit needs practice (P rating). With this written assessment tool, IET company commanders, for the first time, can fully focus their training efforts and resources on improving their units' proficiency in a mission essential task.

Although we have come a long way in IET training management, we have not resolved every issue. Leader and soldier tasks as well as platoon collective tasks have not been determined. Once we meet this challenge, however, our framework for fully successful training management will be complete. Common sense must always apply; the standards a commander sets must be achievable and consistent with what actually occurs in his company. As long as he remembers these tenets, formulating subtasks is not difficult, and the product obtained will be an accurate assessment tool for his unit.

These METL training objectives provide a yardstick by which all companies in 3d Brigade can be measured. This, in turn, enables the battalion commanders and ultimately the brigade commander to accurately assess readiness trends within the command.

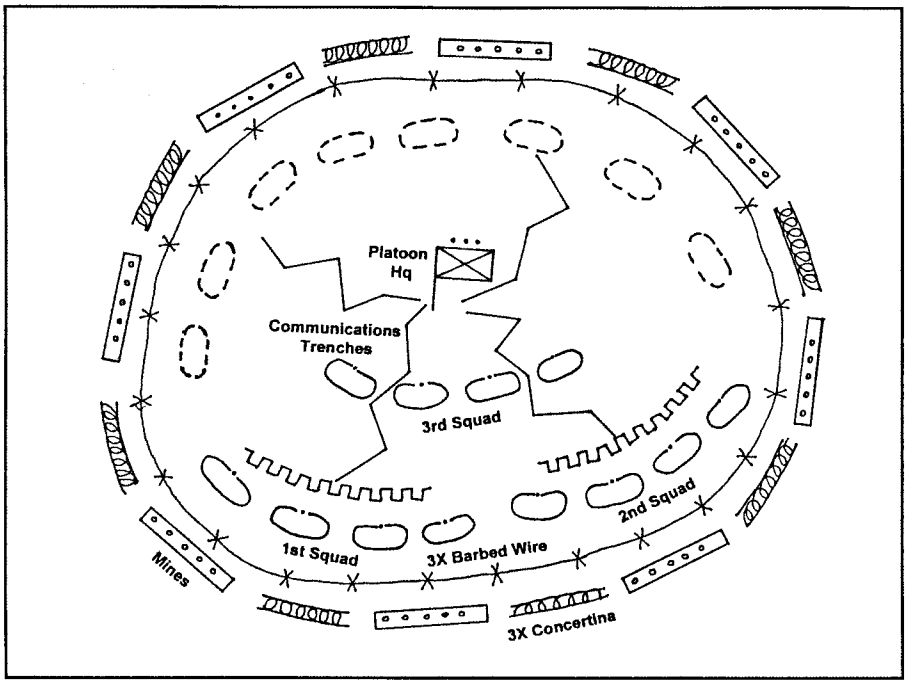
No matter what unit we are a part of, our tactical doctrine is underwritten by successful training management. With an effective assessment tool in place, companies within the 3d Brigade can now perform their missions more successfully.

Major Joseph C. Sloop commanded companies in the 3d Training Brigade and served as executive officer, 2d Battalion, 10th Infantry, at Fort Leonard Wood. He previously served as battalion chemical officer/assistant S-3 and group chemical officer, 7th Special Forces Group, and is now chemical surety officer on Johnston Atoll in the South Pacific.

Light OPFOR Infantry Platoon Security

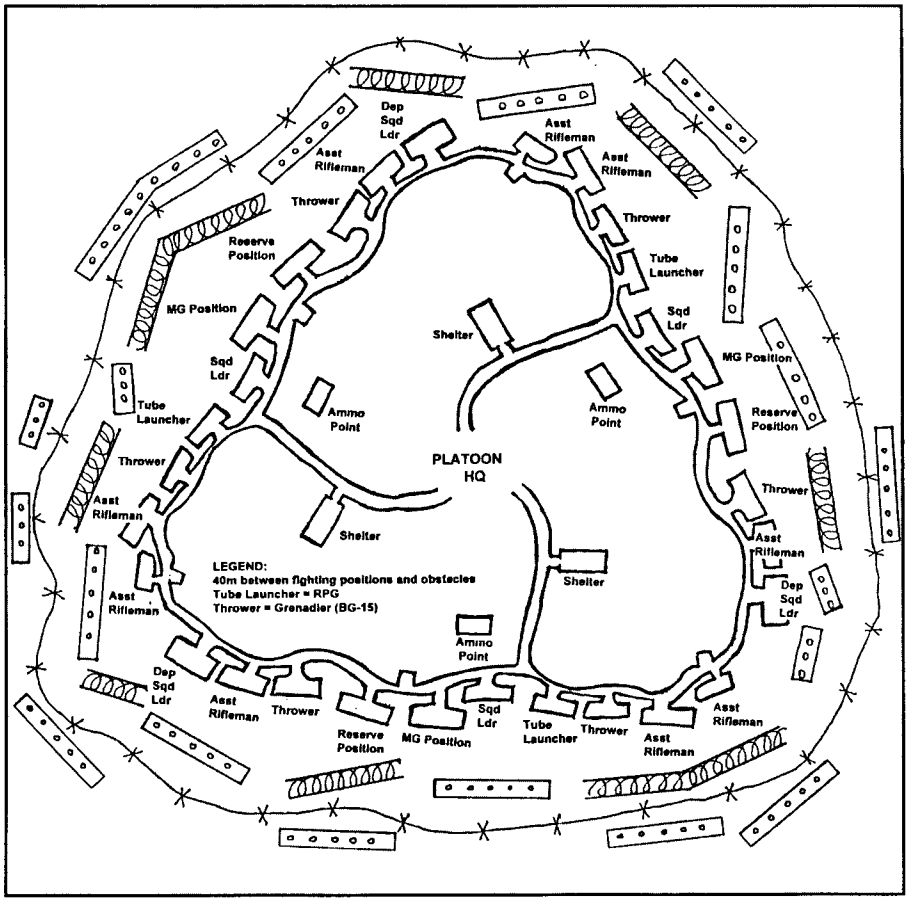
MASTER SERGEANT BRENDA BLOOMER
MICHAEL R. JACOBSON

The light infantry platoon is the foundation of many nations' maneuver forces. Its composition and weapons enable the platoon to occupy terrain, and—in conjunction with its fellow platoons of the rifle company—it can present a formidable hindrance to an enemy's scheme of maneuver, forcing the enemy to dismount or deploy earlier than he had intended. The purpose of this article is to discuss security operations of an opposing force (OPFOR) light infantry platoon using as models light infantry platoons of the infantry-based OPFOR, North Korea, and Iraq.



Light OPFOR infantry platoon outpost

This article discusses three types of OPFOR infantry platoon outposts. The information can be used to help train infantry units in how to recognize and attack enemy outposts. Units can either wargame how to deal with these types of positions, or they can actually construct them for force-on-force or live-fire exercises.



North Korean combat security outpost

Light OPFOR Infantry Platoon Security

As a rule the light OPFOR infantry platoon defends as part of a company, but under certain conditions it may perform an independent mission as a combat security outpost or strongpoint.

The creation of a platoon strongpoint requires that wire and other obstacles be emplaced ahead of the platoon's forward positions. Platoon personnel dig one-man and two-man foxholes, connect them into squad entrenchments, and then prepare a continuous trench to unify the platoon strongpoint. The platoon provides its own security by sending out two or three soldiers as an observation post (OP). The weapon squad would support the front line squads.

An infantry platoon in the defense would normally cover an area of up to 400 meters wide, 50 to 300 meters deep, and up to five kilometers in front of the forward edge of the main battle area. Within 24 hours after occupation, they usually complete fighting positions with 18 inches of overhead cover. The positions are normally six to eight meters apart with the squads up to 50 meters apart. The third squad is 100 to 200 meters behind the forward fighting positions. The platoon leader establishes a squad-size bunker. The OPs are positioned 200 to 400 meters forward of the front fighting positions. In positioning obstacles, the three-strand wire is 40 meters forward of the front fighting positions with concertina wire and mines at a depth of 40 to 100 meters directly in front of the wire.

For positioning of weapons in fighting positions, antitank weapons and riflemen would cover mounted avenues of approach; machineguns and riflemen would cover dismounted avenues of approach; and grenadiers (BG-15), supported by riflemen, would cover dead space.

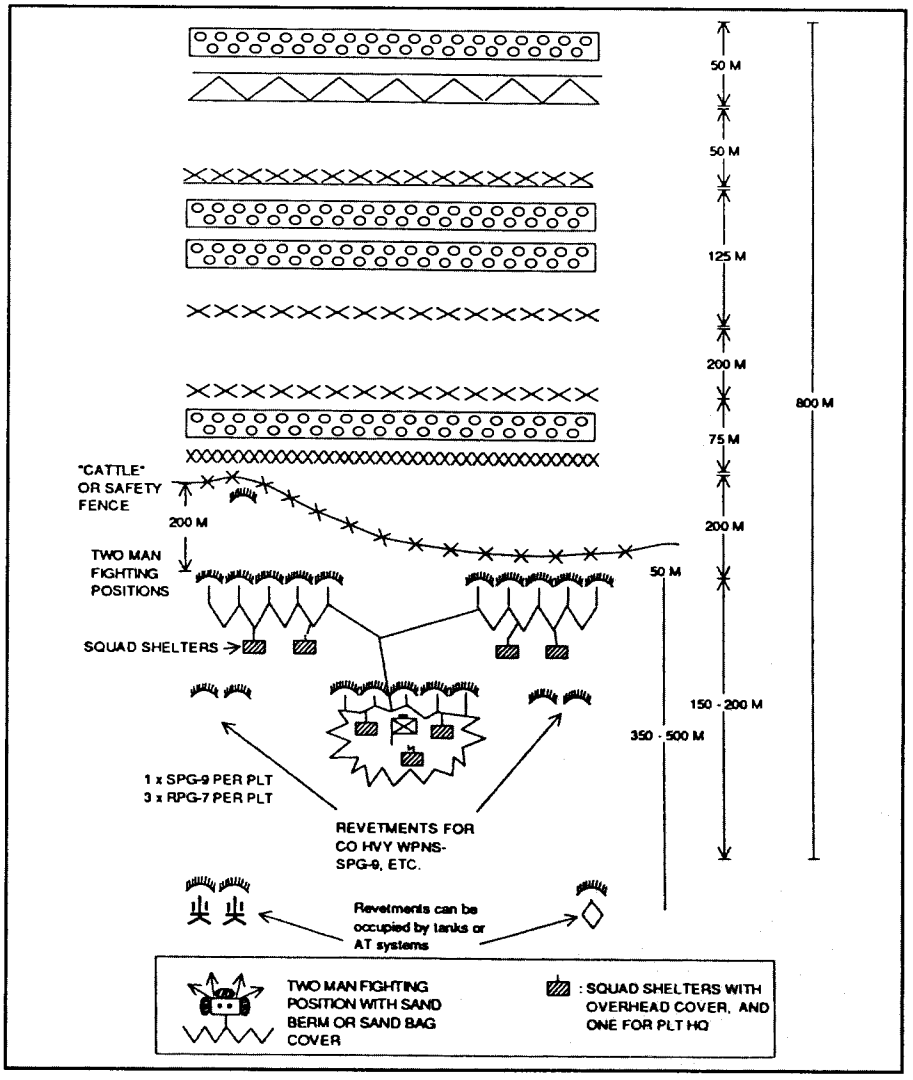
This type of outpost is employed at the Joint Readiness Training Center, and the circular defensive position is common for a combat security outpost. In addition, it reflects a training standard established by the Army's Training and Doctrine Command for an infantry-based OPFOR.

North Korean Infantry Platoon Combat Security Outpost

The North Korean combat security outpost has the mission to draw the enemy to a place apart from the main defensive area and to a dummy FEBA (forward edge of battle area), block enemy infiltration and give early warning, prevent surprise attack and confuse enemy reconnaissance while deceiving the enemy as to location of the main defense, and protect obstacles. A portion of the personnel occupy a concealed OP, if necessary. It is reinforced with mortars from higher. The combat security outpost will have individual foxholes of various kinds, connection between the foxholes (trenches), cleared fields of fire, a prepared observation post for the platoon leader, constructed obstacles, personnel shelters, reserve trenches, ammunition dumps, and traffic gangways (trenches).

The outpost covers an area up to 500 meters wide, 50 to 300 meters deep, and is normally one to two kilometers in front of the forward defensive area. Individual foxholes are six to 15 meters apart. The platoon leader's OP is 25 to 100 meters behind the frontline positions. Obstacles for the platoon defense are 40 meters forward of the firing positions and 40 to 100 meters in depth.

The advantages are that Korea is a potential major regional area of conflict and North Korea's combat outpost is manned by a reinforced platoon. It is designed for mountainous terrain and is not nor-



Iraqi infantry platoon in defense.

mally a circular fighting position, thus limiting 360-degree security.

Iraqi Infantry Platoon in Defense

Iraqi infantry platoons defend with their infantry in forward trench lines unsupported by armored vehicles. Each squad digs five two-man fighting positions with overhead cover flush to the ground and well camouflaged. The squad positions are connected by communication trench lines. The platoon will defend with two squads forward and one back. The platoon leader is located in the vicinity of the rear squad position.

Each platoon will have an OP behind the protective obstacles, and the OP will stay in position throughout the battle. Each platoon is armed with three RPG-7s and reinforced with two SPG-9s. Each squad will have one RPG-7. The SPG-9s will be located to the rear of the platoon position for effective use of the weapon's range. The platoon's antitank weapons will have overlapping fires that cover the tactical obstacles. The protective minefields will be protected by final protective fires, automatic weapons, and RPG-7s. The long-range antitank systems also provide protection to the flank of the position.

The Iraqi platoon in defense covers an area 350 by 350 meters. Squads are 60 to 70 meters apart with the reserve squad 50 to 100 meters behind the frontline positions. Squad positions are 75 meters deep. The OP is up to 200 meters forward of the front lines.

The advantages of this position are that it offers overhead cover flush to the ground for fighting positions, and each position is connected to others by communication trenches.

The diagrams and descriptions of these outposts will help small-unit leaders and soldiers plan and train the way they can recognize and attack enemy platoon outposts. These are the doctrinal plans, which can be modified on the basis of terrain, enemy, and weather.

These security outposts are designed to provide early warning, to prevent U.S. reconnaissance from targeting company positions, and to cause the U.S. forces to deploy. The outposts will normally receive direct and indirect fire support from the battalion. In OPFOR doctrine, once the enemy begins to deploy for a major attack, the security forces will withdraw, but this will not be the case with the North Koreans.

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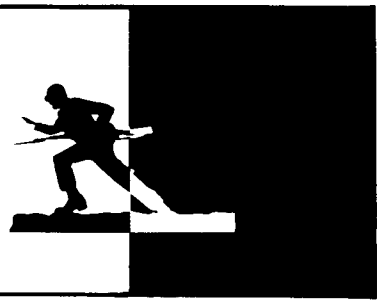
FIFTY YEARS AGO IN HISTORY
NOVEMBER-DECEMBER 1946

Eighteen months after the end of World War II, the former Allies had yet to arrive at a consensus on the rebuilding of Germany, the future of Korea, or a resolution of China's political future. In the meantime, Korea continued to train and expand the fledgling defense force that had assumed many of the duties formerly carried out by U.S. Military Police. Concurrently, the U.S. Marine Corps began reviewing its amphibious operational doctrine in light of the capabilities revealed in atomic bomb testing.

These and other highlights of the postwar years have been provided by Mr. Bud Hannings, in preparation for his upcoming chronology of the Korean War.

4 November	***The United States welcomes a Council of Foreign Ministers, in an attempt to reach a compromise among the four occupying powers on the rebuilding of Germany. Due largely to Russian intransigence, the conference will remain in session for two months without reaching an agreement.***
15 November	***Although the Chinese National Assembly convenes, the communists—asserting that power should have been transferred to the State Council before convening the National Assembly—largely boycott the meeting.***
30 November	***The Korean Constabulary now numbers 143 officers and 5,130 enlisted men and has established another garrison, on the island of Cheju-do. Much of their training, still based on the Japanese or Chinese models, will require modification to more closely follow U.S. tactics.***
16 December	***General Vandegrift, the Marine Commandant, receives a detailed report on the likely effects of a nuclear attack on an amphibious landing force. The report contends that as a result of this technological advance in the art of war amphibious landings as seen in World War II are now obsolete.***
31 December	***The Council of Foreign Ministers adjourns, agreeing to meet again in Moscow on 10 March 1947. No progress has been made on the issues of demilitarization, the number and status of German POWs held by the Russians, or the open inspection of manufacturing plants by members of the quadripartite teams.***

BOOK REVIEWS



INFANTRY has received several excellent reference volumes that readers will find interesting and useful:

***Jane's Battleships of the 20th Century.* By Bernard Ireland. Illustrated by Tony Gibbons. HarperCollins, 1996. 192 Pages, 125 Profiles, 260 Photographs. $30.00.**

***Jane's Tank and Combat Vehicle Recognition Guide.* By Christopher Foss. HarperReference, 1996. 510 Pages. Black and White Photographs and Diagrams. $19.95, Softbound.**

***Jane's Warship Recognition Guide.* By Keith Faulkner. HarperReference, 1996. 541 Pages, Black and White Photographs. Color Ensigns and Flags of the World's Navies. $19.95, Softbound.**

***The Biographical Dictionary of World War II.* By Mark M. Boatner III. Presidio, 1996. 736 Pages, Glossary, Bibliography. $50.00.**

***The World Factbook, 1996-97.* Central Intelligence Agency. Brassey's, 1996. 576 Pages, Maps, Appendixes. $32.95.**

***Turning Point: The Gulf War and U.S. Military Strategy.* Edited by L. Benjamin Ederington and Michael J. Mazarr. Westview Press, 1995. 290 Pages. $32.95.** Reviewed by Lieutenant Colonel Harold E. Raugh, Jr., U.S. Army.

The "turning point" of this book's title supposedly refers to the Gulf War and its impact on U.S. military strategy. Considering the contents of the volume—and the significance of actual international events—the real turning point in determining the future of U.S. defense policy and military strategy was the dissolution of the Soviet Union and the emergence of the United States as the world's sole superpower.

This anthology, therefore, belatedly capitalizes upon the euphoria (and publicity) generated by the Gulf War. It provides wide-ranging perspectives—from a number of prominent strategic thinkers, analysts, and commentators—on the future nature of warfare and its role in international politics. The 14 essays are grouped in four main sections headed: The Context for Military Strategy, The Gulf War and Its Lessons, Elements of Future Strategic Thought, and Summing Up.

Edward N. Luttwak's essay, "The Global Setting of U.S. Military Power," suggests that geopolitics has been replaced by "geoeconomics," in which "the greatest states in the central arena of world affairs are preoccupied by a new struggle for economic leverage and industrial supremacy" (page 5). This may result in a conflict between northern rim and southern tier states, or internal conflicts within the former Soviet Union and other areas. General Norman Schwarzkopf's planning to achieve the coalition's political objectives on the ground in the Gulf War is criticized in John H. Cushman's "Implications of the Gulf War for Future Military Strategy." Other excellent essays focus on, among other topics, the role of nuclear weapons, deterrence, force projection, information warfare, and U.S. military strategy in Europe, the Middle East, and Asia.

Martin van Creveld, in "summing up" this volume, says that large-scale, conventional wars between nations may be coming to an end, to be replaced by so-called low-intensity conflict, often conducted by nonstate entities.

The thought-provoking essays in this book will help the reader understand the possible causes of, reactions to, and strategy employed in such future conflicts.

***Shadow War: The CIA's Secret War in Laos.* By Kenneth Conboy with James Morrison. Paladin, 1995. 453 Pages. $49.95.** Reviewed by Dr. Joe P. Dunn, Converse College.

The Laotian theater of the war in Indochina has remained an obscure, secretive, little-understood aspect of that long conflict. Only a few books have addressed the secret war in Laos, and most of those have touched on just a part of it: Jane Hamilton-Merritt focuses on the Hmong; Christopher Robbins on Air America and the Ravens; others on activities of MACV-SOG (Military Assistance Command, Vietnam-Special Operations Group), air rescue, MIAs/POWs, or other topics. Aside from this study, the only ones that undertake full-scale treatment of all aspects of the conflict are Timothy Castle's relatively brief *At War in the Shadow of Vietnam* (1993) and Roger Warner's *Backfire: The CIA's Secret War in Laos and Its Link to the War in Vietnam* (1995).

Conboy spent six years as the Southeast Asia policy analyst and deputy director of the Heritage Foundation's Asian Studies Center in Washington, D.C. He is the author of seven books on Southeast Asia, including works on the war in Cambodia and the People's Army of Vietnam. He has worked toward this large-folio reference volume for more than a decade. The result of documentary research and more than 600 interviews, it represents an enormous undertaking and an invaluable contribution.

Conboy traces the origins of the Laotian conflict; the various theaters; the many players, including the different indigenous ethnic constituencies in Laos as well as the Thais, Nung Chinese, North Vietnamese, Soviets, Chinese, and others; the different American players—the Ambassador and the State Department, CIA, Air Force, the U.S. Agency for International Development, MACV-SOG; and the clandestine activity and technology in the country. The volume includes numerous photographs, wonderful maps, a necessary glossary, and a useful index.

Although much could be said about this book, it will suffice to say that it is a first-rate reference source, dispassionate and as comprehensive as possible, given the complexity and continuing secrecy of the topic. Moreover, it is fascinating reading. It is the place to start for anyone interested in the clandestine war in the Land of a Million Elephants.

***Forgotten Summers: The Story of the Citizens' Military Training Camps, 1921-1940.* By Donald M. Kington. Two Decades Publishing (Box 167, 3739 Balboa Street, San Francisco, CA 94121), 1995. 239 Pages. $18.95, Softbound.** Reviewed by Lieutenant Colonel Albert N. Garland, U.S. Army, Retired.

Many pre-World War II "brown-shoe" Army soldiers will remember the Citizens' Military Training Camp (CMTC) program, for they probably took part in training those young men (initially 16 to 35 years of age and, after the first year, 17 to 25) in the rudiments of military training. All branches of the service

were represented, but the enrollees received basic infantry training in the first year.

Interested young men volunteered freely, and while they were not paid, they were clothed, housed, and fed, and received transportation expenses to and from the camps. Two to three times more applications were received than the Army could accept. Generally, to save travel expenses, the Army assigned the applicants to the nearest camp; all of the camps were on active Army posts, and most of the training was conducted by the regular soldiers on those posts.

Although the CMTC program had its genesis in the National Defense Act of 1920, the concept was not a new one in this country. For many years, militia units had conducted training camps that offered at least a modicum of military training to interested civilian men. The idea behind these camps, as well as the later, more formal camps, was to prepare men to take their places in the ranks, or to serve as officers, in the event of a national emergency or mobilization. At the time the CMTC program began (around the same time as the ROTC program on college campuses), the United States had few men with any sort of formal military training. It was hoped that those who completed even one year of the four-year program (initially, three years) would enroll in a reserve component unit.

No man could attend more than four summer camps; if he wanted a commission after his four years, he had to be a member of one of the Army's components, pass a complete physical examination, and convince a board of officers he was suitable. (One example: Former President Ronald Reagan, while working as a radio announcer in Iowa in the 1930s, took cavalry training in the program at Fort Des Moines, where he earned a commission.)

During the 1920s, only white enrollees were accepted into the program. By the mid-1930s, the Army had opened several camps for black Americans: during the summer of 1936, at Fort Riley, Kansas, and Fort Howard, Maryland, and the following year at Fort MacArthur, California.

Author Donald Kington, a retired Army officer, draws on numerous primary and secondary sources, as well as interviews with men who attended all or part of the program, to present an easy-to-read account of this almost forgotten military training program. (He wonders if such a program could be conducted today.) As he points out, too many Americans confuse the CMTC program with the CCC (Civilian Conservation Corps) movement. Many of his chapters contain the personal experiences of men who represented all 20 years of the program.

He points out that an estimated 370,000 men attended at least one of the summer camps, and that the program had a high attrition rate. Only some six percent of the men entering the program completed all four years, and only slightly more than 5,000 graduates were appointed second lieutenants during the life of the program.

Despite these statistics, the author believes that "although now a relic of the past, during its 20-year existence Citizens' Military Training Camps surely made a positive contribution to America."

I certainly agree with Kington and urge all infantrymen to read this book. The old brown-shoe Army had more to be proud of than many people seem to believe; its conduct of the CMTC program certainly goes into the plus column.

Rich Relations: The American Occupation of Britain, 1942-1945. **By David Reynolds. Random House, 1995. 544 Pages. $30.00. Reviewed by Lieutenant Colonel Alan C. Cate, U.S. Army.**

As the well-known British appraisal of the U.S. military's World War II "occupation" of the United Kingdom had it, the American GIs were "oversexed, overpaid, overfed, and over here." David Reynolds explores this "friendly invasion" in his splendidly researched and engagingly written volume. While the sardonic British complaint may have reflected a partial truth, Reynolds reveals that relationships between the Yanks and their hosts were considerably more complex and nuanced than any of the glib characterizations or stereotypes invoked on both sides of the Atlantic. In so doing, he extracts rich military social history from a subject too often shrouded in nostalgia and myth.

Reynolds emphasizes that the U.S. presence was highly dynamic in terms of both time and space. The number of GIs in the British Isles between early 1942 and the war's end fluctuated according to operational rhythms. Commencing with initial deployments in January 1942, U.S. troop levels steadily rose until commitments to the North African campaign caused them to dip in late 1942 and early 1943. Then came the enormous buildup for the cross-channel invasion and the subsequent rapid drawdown of U.S. forces as they were introduced into northwest Europe beginning in the summer of 1944.

While U.S. bases and personnel flooded certain parts of Great Britain, particularly in the south, other regions experienced little or no direct contact with the Americans. The author also reminds us of the often fleeting nature of the American sojourns. Many of the three million U.S. servicemen and women who passed through wartime Britain measured their stays in weeks or a few months. Yet Reynolds does not neglect those whose stays were generally more permanent—U.S. Army Air Force and Army Service Forces members. Indeed, the treatment of two important subsets of these organizations makes up some of the most fascinating portions of the book: combat aircrews, daily "commuter combatants" between a semblance of normality and savage air battles; and African-American GIs, at large in a society unaccustomed to U.S. racial practices.

Further, Reynolds details the way a host of physical, economic, and social factors stemming from wartime conditions in Britain shaped relationships between Brits and Yanks. By the time the first Americans arrived, the British had been at war for more than two years. Air raids and their associated damage, blackouts, severe rationing or the complete absence of consumer goods, and the "liberation" of unprecedented numbers of women to support the war effort were all features of the Britain the GIs discovered. These unique conditions affected perceptions on both sides. Likewise, the military socialization process undergone by the GIs—"regimented tourists" overwhelmingly young and abroad for the first time—obviously colored Anglo-American encounters.

Managing those encounters was of some concern to both U.S. and British policy makers, whose responses Reynolds categorizes as either "negative" or "positive." The former—favored by a majority of U.S. commanders, who wished simply to get on with the war—sought to avoid inevitable friction by minimizing contact. The latter—espoused by Churchill and the Foreign Office with a view to nurturing a postwar "special relationship" between the English-speaking peoples, and by Eisenhower to a certain extent in the interest of inter-Allied understanding—looked to capitalize on opportunities to forge Anglo-American bonds. Neither was ever a coherent strategy, and the evidence in the book leads to the conclusion that events unfolded largely on the basis of local circumstances and individual inclinations.

Readers will find *Rich Relations* chock-full of interesting facts, humorous anecdotes, and poignant episodes, as well as keen analysis. Drawing on a wealth of official and unofficial British and American sources, Reynolds has crafted a superb account at the intersection of military and social history. The result provides fresh perspectives on our World War II armed forces, the society from which they

were drawn, and the society that hosted such a sizable portion of them during an extraordinary time.

***Fighting by Minutes: Time and the Art of War.* By Lieutenant Colonel Robert Leonhard. Praeger, 1996. 179 Pages.** Reviewed by Captain Robert L. Bateman, U.S. Army.

First the bad news—this book costs $47 at the post exchange. This is unfortunate. It means that there will be a lot of money flowing out of professional pockets because this is *the* premier theoretical work of the past 40 years and is destined to become a classic of this century.

The author, Lieutenant Colonel Robert Leonhard, is the U.S. Army's most prolific and outspoken theoretician. His first book, *The Art of Maneuver,* established his reputation as an original thinker, although it did begin by following in some rather well-established footsteps. This book not only introduces an entirely new perspective of how we should think about war, it also provides us with the conceptual tools we will need to do this.

The premise is deceptively simple: "The most effective way to perceive, interpret and plan military operations is in terms of time, rather than space." This, in itself, is not a difficult concept for the average professional to grasp. Yet it is in his rigorous analysis of the implications of how a shift from a spatial to a temporal outlook might affect the conduct of war that Leonhard truly breaks new ground.

Introducing concepts such as "Leveraging Temporal Asymmetry" and using terms borrowed from physics (operations within war have a "frequency" and an "amplitude"), this is not an easy or light read. With almost every page, the reader must put the book down, digest what he has read, decide whether he agrees or disagrees and actually think about the nuances of our profession. This alone justifies the cost of the book.

Despite his newly coined terminology, or perhaps because he uses concepts "borrowed" from other disciplines, Leonhard's book allows readers to open their minds to the potential new methods of executing war that he proposes. In the past, Leonhard has been accused of using history out of context as a justification for his theories. Yet in this book (which is not a history), his use of historical examples in support of his thesis rings true and helps greatly in his explanation of a new method of understanding warfare.

Although this book is expensive, it is also important. To read it is to think hard about our profession. Casual soldiers and leaders should leave it on the shelf; professional warriors should go out and buy a copy today. Read it. Argue about it. Make notes in the margins.

***The General's General: The Life and Times of Arthur MacArthur.* By Kenneth Ray Young. Westview Press, 1994. 711 Pages. $20.00, Softbound.** Reviewed by Colonel Cole C. Kingseed, U.S. Army.

In this biography of Lieutenant General Arthur MacArthur, father of Douglas MacArthur, Kenneth Young has produced what is likely to remain the definitive work on the senior MacArthur, who received the congressional Medal of Honor for his heroic action at the head of the 24th Wisconsin Volunteers on Missionary Ridge during the Civil War. By the time he died in 1912, during the 50th reunion of his regiment, MacArthur had concluded an illustrious career that spanned 46 years of commissioned service.

Surprisingly, no biography of this distinguished officer had been written before this study. The author gives several reasons for this, not the least of which is that Arthur MacArthur was a reserved man who was most comfortable in the company of other military men and, unlike his more flamboyant son, never dallied with self-promotion. Another reason may be that MacArthur's personal papers were destroyed in World War II. Fortunately, extensive official reports, diaries, letters, and autobiographies of his principal subordinates provided enough material for an examination of this remarkable officer.

Since MacArthur's career spanned the period from the Civil War to the Philippine Insurrection, any study of his life serves as a microcosm of the Army at the turn of the century. His achievements included the foundation of the modern army post exchange system, the return of a promotion system based on merit, and a new policy of awarding medals to officers as well as enlisted men.

His greatest contribution, however, was as a warrior. He joined the 24th Wisconsin Volunteers in August 1862 at the age of 17. He fought in 18 major battles in Tennessee and Georgia, served on the Indian frontier for 20 years, commanded a brigade and a division with distinction in the Philippines, and eventually served as the military governor there.

Unfortunately, MacArthur was not adept at dealing with his civilian contemporaries. His feud with William Howard Taft, when Taft served as president of the second Philippine Commission, cost him any chance of serving as the Army's chief of staff. Taft, now Secretary of War, had no intention of nominating an officer whom he considered irascible and troublesome. MacArthur also alienated Secretary of War Elihu Root, and he was a vocal opponent of the Root reforms that brought the army into the modern age. Embittered at not attaining the prestige associated with the position of Army chief of staff, MacArthur retired in 1907, having reached the mandatory retirement age of 64. Like his son, Arthur MacArthur never forgave the powerful Washington politicians who denied him his place in history.

Long after his death, Arthur MacArthur exerted a powerful influence on his son Douglas. In his own career, which spanned half a century, Douglas MacArthur looked up to only one man, his father. The junior MacArthur's every act of defiance, his every display of conspicuous bravery, his insatiable ambition were calculated to earn his father's respect and to achieve what Douglas considered his rightful inheritance. After reading this book, it is easy to understand the motivation that drove Douglas MacArthur to his own rendezvous with destiny.

***J.E.B. Stuart.* By John W. Thomason, Jr. Originally published by C. Scribner's Sons, 1929. Bison Book Reprint. University of Nebraska Press, 1994. 512 Pages. $14.94.**

***The Night the War Was Lost.* By Charles L. Dufour. Originally published in 1960. Bison Book Reprint. University of Nebraska Press, 1994. 427 Pages. $14.95.**

***General Lee: His Campaigns in Virginia, 1861-1865.* By Walter H. Taylor. Originally published in 1906 by Nusbaum Books, Norfolk, Virginia. Bison Book Reprint. University of Nebraska Press, 1994. 314 Pages. $12.95.**

***Hayes of the 23rd: The Civil War Volunteer Officer.* By T. Harry Williams. Bison Book reprint of 1965 Alfred A. Knopf hardcover. University of Nebraska Press, 1994. 324 Pages. $13.95.** Reviewed by Major Don Rightmyer, U.S. Air Force, Retired.

If you have been actively seeking out and reading books about the Civil War during the past five years or so, you are probably aware of an interesting and welcome trend—the continuing and even increasing interest in the history of the war throughout the United States. Not only has there been a high level of publication of new Civil War history works (as evidenced by the book reviews found in INFANTRY), but there has also been such a renewed interest in the war that several publishing houses have been reprinting some of the great classics of Civil War history long out of print. The University of Nebraska's Bison Book series has been especially responsible for bring-

ing back many of these histories.

While Emory Thomas's 1986 biography of Confederate General J.E.B. Stuart, *Bold Dragoon,* is probably the best biography on that cavalry leader, John Thomason's 1929 work is a welcome addition to the volumes about this Confederate cavalier. Although Thomason's work provides a lot less analysis and interpretation of Stuart's service and use of the cavalry in support of the Army of Northern Virginia, it is still a worthwhile study. The maps are mediocre in quality and presentation of their graphic information, but the pen-and-ink drawings of cavalrymen in action provide some interesting illustrations.

Charles Dufour's *The Night the War Was Lost* is an excellent study of the Confederacy's loss of New Orleans and how the Union's military forces brought about that feat. His thesis is that the loss of New Orleans resulted in the failure of both England and France to recognize the Confederacy as an independent, sovereign nation, and thus the title of his book. This work is an interesting examination of that early campaign to begin regaining control of the entire Mississippi River.

Walter Taylor's *General Lee: His Campaigns in Virginia* is an intriguing look at the Confederate commander from the perspective of the man who worked and fought most closely with him throughout the war. Taylor was Lee's adjutant for nearly the entire conflict. The book has its biases, as one might expect, but it provides the kinds of insights that could be wished into the service of more great military leaders throughout history.

T. Harry Williams's *Hayes of the 23rd* is not only a book by one of our greatest military historians but also a military biography of Rutherford B. Hayes, a future President of the United States, who served as a Union general during the war. His service included the West Virginia campaign in the early days of the war, South Mountain, and the Shenandoah Valley with Sheridan in 1864. It is an excellent example of the politician who entered military service and was able to demonstrate competence as a military leader. Certainly not every politician who donned the Union (or Confederate) uniform could make that claim for himself.

There is no way of knowing how long this positive trend in Civil War publishing will continue. If you're interested in studying the military history of that war, take advantage of it. For those who want to study the campaigns and battles, this is an excellent time to stock your shelves with some of the historical classics. Some of these works were originally published during the period of the Civil War Centennial in the early 1960s and have not been readily available since that time, except in libraries that have managed to keep them on the shelves.

***Guns of the Elite: Special Forces Firearms, 1940 to the Present.* Second Edition. By George Markham. Arms & Armour Press (distributed by Sterling), 1995. 176 Pages. $27.95.** Reviewed by Michael F. Dilley, Davidsonville, Maryland.

I've changed my mind about this book. When I first looked it over, I thought it was probably superficial and a quickly put-together hodge podge about rifles, with "special forces" tossed in to help it sell. I was wrong.

This is an interesting, well-written history of weapons. It is not a quick or easy read. The subject is, admittedly, dry. Some of the material is available elsewhere, even in Government publications that might be easier for military units to obtain. None of this, however, means you should pass this book up.

Author Markham spends almost the first third of the book on a history of fierarms. He begins his history not in 1940, as the title suggests, but in the 17th century, with the development of the early musket. This background provides the perspective for his theme, the search for functional weapons for special purpose use. To better understand that context, Markham contends, one must understand the process of procuring conventional weapons—establishing requirements, examining alternatives, conducting competition among the proposed designs, selecting a manufacturer, and reviewing performance under actual conditions. The same basic process is used for special forces weapon procurement but with major, obvious differences in the requirements and actual conditions.

Markham's writing style is not pedantic or heavy-handed. He is straightforward and matter-of-fact. Each time he discusses the needs of a different country's forces, he has to shift gears a little. While we may be used to the way the design and procurement process works in the United States, it is done differently elsewhere. If we understand how it works, we may better appreciate how a different outcome somewhere else makes sense. Markham's discussion of weapon testing provides the framework for the occasional charts he uses to illustrate results. The real meat of the book is the photographs and exploded weapons views. If you are wondering what is so different that this book requires a second edition, it is because of a new chapter on shotguns and complete rewrites on the chapters detailing handguns, sniper scopes, and compact submachineguns as well as updated performance data.

Although this is not an easy book to read, I recommend it. It is a worthwhile addition to most military libraries both for its history and for its discussion of current techniques.

RECENT AND RECOMMENDED

***Brown Water, Black Berets.* By Lt. Cdr. Thomas J. Cutler, USN. (Published in hardcover by Naval Institute Press, 1988.) Pocket Books, 1996. 416 Pages. $6.99, Softbound.**

***Practical Martial Arts for Special Forces.* By William Beaver. Paladin Press, 1996. 102 Pages.**

***The Lessons of Modern War, Volume IV: The Gulf War.* By Anthony H. Cordesman and Abraham R. Wagner. Westview Press, 1996. 1,022 Pages. $98.00.**

***Blankets of Fire: U.S. Bombers Over Japan During World War II.* By Kenneth P. Werrell. Smithsonian Institution Press, 1996. 350 Pages. $39.95.**

***Immediate Action.* By Andy McNab. Dell Publishing, 1996. 528 Pages. $5.99, Softbound.**

***A Quick and Dirty Guide to War: Briefings on Present and Potential Wars.* Third Edition. By James F. Dunnigan and Austin Bay. William Morrow, 1996. 640 Pages. $27.50, Hardcover.**

***Victory and Deceit: Dirty Tricks at War.* By James F. Dunnigan and Albert A. Nofi. William Morrow, 1996. 400 Pages. $16.00, Softbound.**

***The Black Infantry in the West, 1869-1891.* By Arlen L. Fowler. University of Oklahoma Press, 1996. 190 Pages. $12.95, Softbound.**

***Korea: Frozen Hell on Earth.* By Boris R. Spiroff. Vantage Press, 1995. $12.95, Hardcover.**

***Naked Warriors.* By Francis Fane. St. Martin's, 1996. 310 Pages. $5.99, Softbound.**

***The Complete Art of War: Sun Tzu/Sun Pin.* By Ralph D. Sawyer. Westview Press, 1996. 304 Pages. $25.00.**

***G Company's War: Two Personal Accounts of the Campaigns in Europe, 1944-1945.* By Bruce E. Egger and Lee MacMillan Ott. Edited and with Commentary by Paul Roley. University of Alabama Press, 1992. 304 Pages. $29.95, Hardcover.**

***Four Years with General Lee.* By Walter H. Taylor. Edited by James I. Robertson, Jr. Indiana University Press, 1996. 224 Pages. $12.95, Softbound.**

***Witness to War: The Civil War 1861-1865.* By Harold Holzer.**

***Witness to War Series.* Perigee, 1996. 206 Pages. $12.50.**

***The Nightingale's Song.* By Robert Timberg. Originally published by Simon & Schuster in 1995. Touchstone, 1996. 543 Pages. $14.00, Softbound.**

***That Dark and Bloody River: Chronicles of the Ohio River Valley.* By Allan W. Eckert. Bantam, 1996. 880 Pages. $12.95, Softbound.**

***On Brave Old Army Team: The Cheating Scandal That Rocked the Nation: West Point, 1951.* By James Blackwell. Presidio, 1996. 336 Pages. $27.50.**

***Hitler's Greatest Defeat: The Collapse of Army Group Centre, June 1944.* By Paul Adair. First published in 1994. Arms & Armour (distributed by Sterling), 1996. 208 Pages. $14.95, Softbound.**

From The Editor

CUTTING THE LOSSES

Soldiering is a dangerous business, and each military occupational specialty (MOS) carries risks peculiar to the duties of soldiers in that specialty. The risks of combat are many and diverse, and we train for them. Obviously, some training requirements offer more risk than others: Airborne and airmobile operations, live fire exercises, handling of fuels and munitions, operating heavy tracked and wheeled vehicles, and operations that involve mountaineering or river crossing expertise—to name but a few—all include the potential for injury or death, but in this note, I want to talk about two dangers not associated with combat operations.

Regardless of the MOS of the soldiers involved, firearms accidents continue to be listed as causes of death and injury among our military men and women. While some accidental shootings may occur among the combat service support MOSs and are often attributed to unfamiliarity with the weapons, an alarming number are still found within the ranks of those infantrymen who handle firearms on a daily basis and who have simply fallen victim to complacency. Firearms are the tools of our trade, and unless we understand that they are deadly serious we will continue to lose the very men and women that we can ill afford to do without.

The basic rule of firearms safety is simple and direct: Do not point a gun at anyone or anything you do not intend to shoot. Watch your soldiers—and their leaders. Do not tolerate horseplay in the field, in garrison, or on the range. If leaders understand and enforce this basic principle, we can break the cycle of lives ended early, families destroyed, and careers abruptly terminated.

A second cause of death, disfigurement, and disability among our soldiers is discussed in Command Sergeant Major Spears' article on Page 10 of this issue. He talks about the realities of the use of tobacco products. This is a sensitive area in our profession, because it is tied to the complex issues of machismo, bonding, and image, all things of importance to young soldiers. The facts are long since in on tobacco; there is no mystery about the risks involved. The only mystery is why otherwise highly motivated, successful officers and enlisted men with enormous potential for service to their country, their families, and themselves would put it all at risk. This may not be a popular subject, but reality seldom is.

Risk will always be with us, but we can often control the type and degree of risk we are willing to accept. That is part of the leadership challenge.

RAE

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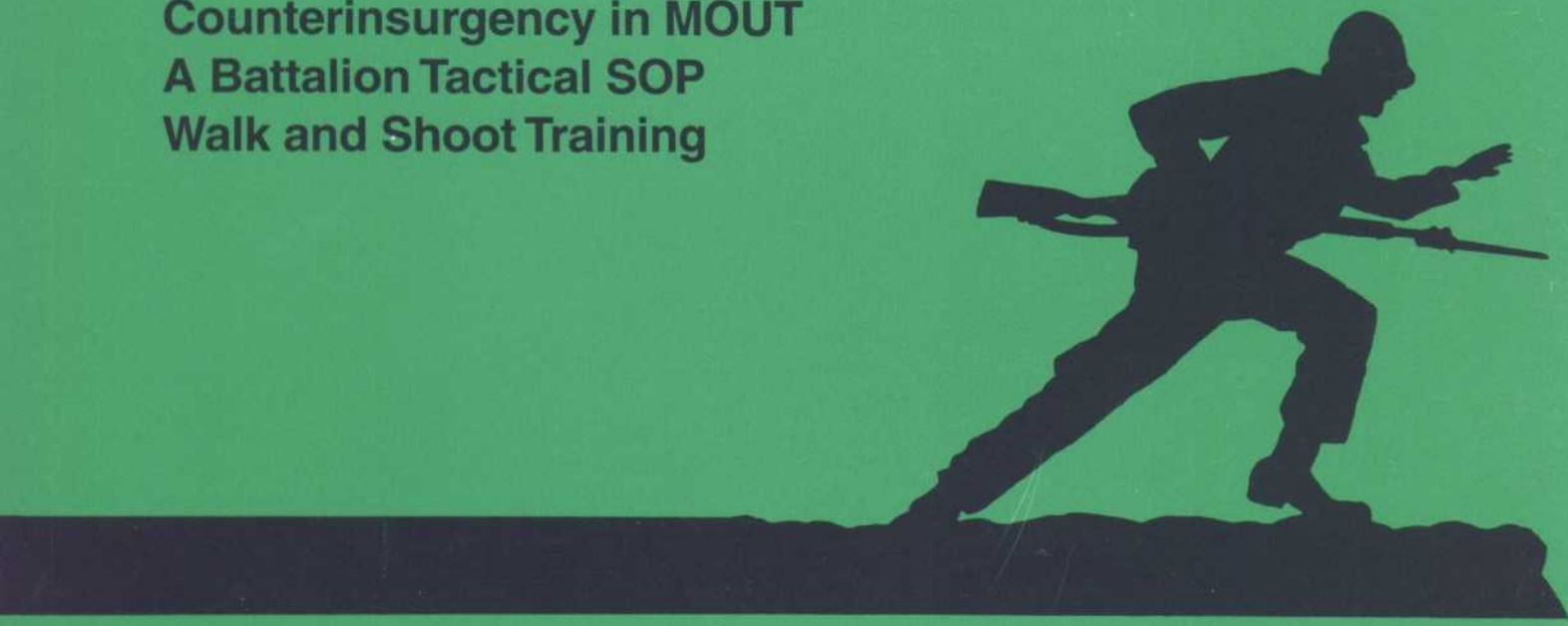

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