

Infantry

July-August 2004

Stryker Brigade Combat Teams



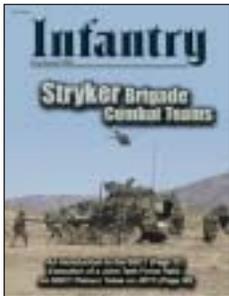
An Introduction to the SBCT (Page 27)
Execution of a Joint Task Force Raid:
An SBCT Platoon Takes on JRTC (Page 30)

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FRONT COVER:

Soldiers with the 5th Battalion, 20th Infantry Regiment rush into their Stryker Infantry Carrier Vehicle so they can move into attack position in the "box" at the National Training Center at Fort Irwin, California. (Photo by Staff Sergeant Rhonda M. Lawson)

BACK COVER:

Senior Master Sergeant Tim Tyvan conducts a patrol with members of the 1st Infantry Division in Iraq on April 1, 2004. (Photo by Staff Sergeant Aaron D. Allmon II, USAF)

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

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Commandant's Note

BRIGADIER GENERAL BENJAMIN C. FREAKLEY

ORGANIC FIRES: Critical Component to the Infantry Combined Arms Team

"If there is one thing a Dogface loves, it is artillery — his own!"

— Audie Murphy

Audie Murphy understood the importance of organic fires. In fact, he is quoted as saying, "I believe in the force of a hand grenade, the power of artillery, and the accuracy of a Garand." Today, as in the past, Infantrymen deployed around the world must understand the principle of fire — direct and indirect — and maneuver as they fight the global war on terror.

The world we knew before 9-11 is changed. We are no longer an Army at peace that occasionally goes to war; we are an Army at war fighting to restore a just and lasting peace. Within this context, we are also transforming the Army, using new technologies and organizations to anticipate and meet emerging and evolving threats. We are in a time of war while changing. However, one aspect that will never change is the need for infantrymen to understand the principle of fire and maneuver as they close with and destroy the enemy.

There has been a lot of discussion over the last few months on the increasing use of joint fires to supplement organic fires and make our organizations more lethal. There is no question that better access to joint fires enhances the lethality of the maneuver force. In fact, we will not go into battle without them. Interdependency on joint fires, not just augmentation, is our objective. But while we refine our ability to unleash the fires of our sister services we will retain organic fires at all echelons and train to apply the combination of both organic and joint fires on the battlefield. As recent history has shown, the synergy of both is devastating. However, the accurate, timely fires of the field artillery and mortars provide the immediately responsive steel on target and the flexibility that the commander on the ground needs on a rapidly changing battlefield, and this gives him the means to



close with and destroy our enemy.

Ground forces in contact and in close combat require responsive fires, and the most responsive fires today and in the future are the cannons and mortars organic to the combined arms team. For years, the fire support community has worked tirelessly to improve responsiveness. The most significant improvement in responsiveness does not come from the computers we now use or the improved delivery systems, but from the transition to top down fire planning and bottom up fire refinement and the creation of the Essential Fire Support Task (EFST) methodology. The EFST

methodology focuses delivery assets and observers to accomplish the difficult task of synchronizing fires and maneuver.

Recent combat operations in Afghanistan and Iraq prove that the methodology ensures responsive fires. There is no more queue, where missions are fired in the order they are received. Now, based on command guidance, all facets of the organic fire support system (observers, mortars, cannons) are focused to accomplish a given task and purpose. Mortars at one echelon can be used to substitute for what cannons are doing for another echelon. It truly is evolutionary and extremely effective if understood and properly executed. Infantrymen of OIF have seen it work, and are believers.

Can other joint fire assets be part of this? Absolutely. However, we cannot assume that these joint fires can guarantee the same level of responsiveness and precision as our organic fire support. They are not as close to the ground situation as are organic assets. There is no question that air power can achieve an EFST. Our desire is to use fires throughout the battle space, attacking the enemy in depth and width simultaneously to drive him to his knees. Furthermore, our organic fire support assets are truly the most responsive all weather fire support that we can rely on. One need not look any farther back than to late March of 2003, during the

“Mother of all Sandstorms,” when the cannons and mortars of the 3rd Infantry Division, the 101st Airborne Division (Air Assault), and the 1st Marine Division continued to take the fight to the enemy, supported by the relentless pounding of organic indirect fires. In this case, our organic fire support assets were our hedge against bad weather.

Flexibility is another critical element of the fire support equation. There is no question that we enjoyed a tremendous amount of air power during both OEF and OIF. Our Air Force brethren proved their commitment to close air support. But — depending upon conditions — air power may not always be as available or as flexible as the cannons and mortars that are already in the maneuver force. Noncontiguous operations are the norm in the Contemporary Operating Environment (COE) of today and will be in the future. We plan operations in detail, but in the noncontiguous battle space, any formation will be in contact and require supporting fires. Air power will be available, but again we cannot afford to rely on this as our only option. Organic fires in the form of the 60mm mortar, the 81mm mortar, the 120mm mortar, and cannons assure that a fire support platform can rapidly shift to provide fires for the unit in contact, regardless of the limitations that ROE, terrain, weather, and the enemy can impose on the employment of air assets.

The human factor is yet another facet of the flexibility of organic fires. The leaders and Soldiers of our organic fire support units are part of our formations. They attend our orders briefs, they attend rehearsals, they develop personal relationships with us, and there is never any doubt that they will be there for us when we are in contact. Ask any company commander with OIF experience, and he will confirm this. Air power and other joint assets will

surely become more flexible as technology evolves and our formations become more joint, but organic fire support assets remain our most flexible.

Closing with and destroying the enemy — the core tenet of the Infantry — requires a combined arms effort. Infantrymen must employ all available fires to destroy and suppress the enemy to facilitate maneuver to a position of advantage from which to launch that decisive, intensely personal final assault. We know not to close with the enemy until the conditions are set. This use of tactics demands both organic and joint fires. Each brings its own unique strengths to the fight. Organic fires are uniquely suited for providing suppression. They are always within range, and they carry a suite of munitions that can be used in any environment. When it comes to destroying the enemy, organic fires accomplish the task, especially with precision munitions. Joint fires can also accomplish this task, but nothing is better than the combination of both.

Infantrymen have never gone into battle without organic mortars and cannons, and they never will. From the American Revolution to World War II to Desert Storm, up to today’s fights, the Infantry understands the importance of employing all available fires to achieve decisive maneuver. Today’s OIF and OEF-experienced infantrymen have refined the art and science of fire employment. Fires first, often, and throughout the operation are a must, and the more fire support assets we can muster, the better off we will be. Infantrymen do the Army’s heavy lifting and are always the point of the spear. We welcome the challenge. As we transform, much will change, but the use of fires remains a critical component of the infantry combined arms team fight.

Follow Me!



Photo by Staff Sergeant Aaron D. Allmon II, USAF



Full-Spectrum Indirect Fire Support: Mortars in the FA

An indirect fire support system by any other name is still an indirect fire support system. Those of us who are fire supporters and artillerymen ought to look to where we can further employ our expertise for the betterment of our Army and fighting forces. One such area, which many within our circles often dismiss, is the employment of mortars: the 60-mm, 81-mm and 120-mm mortars.

Mortars have been inherent in Infantry MTOEs [modified tables of organization and equipment] for many years. Despite the evolutionary shift to precision fires, we still need the responsive area fires mortars provide.

Regardless, Infantrymen tend to focus on employing their direct fire systems. They do not prioritize mortars as highly as their primary direct fire weapon systems.

Infantry MTOEs should be modified to fill mortar sections and platoons with 13-series MOS [military occupational specialty] Soldiers. 13B Cannoneers would fill the mortarmen positions, and 13E Cannon Fire Direction Specialists would staff the mortar FDCs [fire direction centers]. Similarly, officers in mortar platoon leader positions would be 13-series.

Other specialties (Intelligence, Medical and Signal) have embedded their branch-specific Soldiers in Infantry, Armor, and Field Artillery units for many years. Why should we be any different?

The crux of the issue is putting those who are best qualified in the job. First, let me say there are many high-quality Soldiers who are mortarmen. My point is that those who specialize in indirect fire support should be charged with managing, training, equipping and resourcing all the ground



force's indirect fires, not just a portion of it. For years the Infantry has relied upon their DS [direct support] FA battalions to help train their mortar crews and mortar FDCs. Let's just take it a step further and incorporate Field Artillery personnel into the mortar crews.

Just as the 13F Fire Support Specialist was created almost 25 years ago to include artillery and mortar forward observers, so, too, should the remainder of the mortar equation be transformed.

The time for this change is now. Accurate and timely indirect fire support is the service we provide. We should be the full-spectrum providers of indirect (non-line of sight, or NLOS) fires, not just the keeper of cannons and rockets.

Fire Supporters are committed to supporting the close fight. And with the Army's move toward modularity and the former DS battalions' becoming fires battalions organic to the BCTs [brigade

combat teams], our Infantry brethren should welcome our desire to provide our indirect fire expertise and manning in mortar positions to make the BCT a more ready and capable fighting force.

Clearly this change would take some responsibility away from the Infantry, but the maneuver commander still would own his mortars. Another advantage would be that the integration of mortar fires into the overall fire support plan would be greatly enhanced.

The advent of the 120-mm mortar prompts some questions. An option would be to have two eight-howitzer batteries of either 105-mm or 155-mm howitzers and one battery of 120-mm mortars in each of the BCTs' fires battalions.

It's time for Field Artillery to expand and transition into more responsibility in the new BCTs. We are the Army's all-weather, fully capable providers of fire support. Our mission does not change: we must provide accurate and timely fires to support the maneuver commander. What must change is how we do it.

We need to step forward and enhance fires in the close fight by taking responsibility for mortars in the BCTs. Then we need to give this initiative the horsepower to do it right.

— COLONEL KEITH J. BUCKLEW
Commander,
138th Regiment (Combat Arms),
Indiana Army National Guard

If you have a letter or article you would like to submit to *Infantry*, mail it to P.O. Box 52005, Fort Benning, GA 31995-2005 or e-mail it to rowanm@benning.army.mil.



Soldiers To Get Side Protection for Body Armor, New Helmet, Other Items

Deployed troops will soon start getting side protection for their Interceptor Body Armor (IBA), thanks to the efforts of Program Executive Office (PEO) Soldier.

The IBA Deltoid Extension will add about another five pounds to the 16-pound armor to protect the sides of the ribcage and shoulders.

However, the extra protection comes with a price for the Soldier. Brigadier General James Moran, PEO Soldier executive officer, explained that it can limit movement and block air from circulating under the body armor — decreasing the Soldier's ability to cool off in a hot environment.

"Everything we do is a balance," Moran said. "We want all Soldiers to come back without any injuries. At the same time, we want them to be combat effective. Nothing can be made to be indestructible."

Despite the increased weight and movement limitations, Moran said he has no doubt that the new body armor has saved lives. In the past 18 months, the Army has purchased about 300,000 full sets of IBA.

The current Army budget buys 50,000 Deltoid Extension sets this fiscal year, all of which will be shipped to selected troops by the end of September, according to Colonel John Norwood, program manager for PEO Soldier—Equipment. The Army plans to request enough funding in next year's budget to equip all 132,000 Soldiers in the Central Command area of operations with the extension.

All Soldiers in Iraq will also be issued another 14 pieces of new Army equipment from the Rapid Fielding Initiative (RFI). Additional RFI equipment is provided to brigade combat teams based on their missions.

RFI is a system set up by PEO. Thanks



U.S. Army photo

The Advanced Combat Helmet is one of the 14 RFI items deploying Soldiers will receive.

to the development of RFI, Soldiers no longer have to purchase or face long delays before receiving new equipment. Charles Rash, acting deputy of PEO Soldier, said the turnaround time has also improved, to provide Soldiers with state-of-the-art weapons, clothing and equipment before they leave for operational deployment.

RFI is fielding a total of 49 state-of-the-art equipment types in the categories of force protection/mobility, lethality, soldier mission essential equipment, and individual weapons/optics. Some of the RFI equipment issued to all Soldiers includes:

- * The Advanced Combat Helmet, or ACH, has replaced the old Kevlar helmet. The ACH is 3.5 pounds lighter than the old model and is cushioned on the inside, which sits more comfortably on a Soldier's head. It also has a different suspension system inside which allows a Soldier to fight more effectively when wearing body armor.

- * The Infantry Combat Boot Type II has replaced the older model boots, and are designed to be much more comfortable and durable. The boots are available only through RFI and do not need to be polished.

- * Wiley X Goggles are a popular item

among Soldiers according to officials.

New weapons in the testing stage include a Remote Operated Weapon Station to be installed inside the HMMWVs. These new weapon stations will allow Soldiers to fire at targets without exposing themselves.

With help from those who were serving in Afghanistan, the RFI program was able to get input from Soldiers based on what improvements were needed on equipment and what equipment should be issued to each Soldier for an increased combative effectiveness, said Rash.

When RFI found that their Wiley X goggles were not lasting as long as expected, Soldiers suggested issuing them a hard case instead of soft cases to store the goggles in.

A main concern when fielding new products is to reduce the weight Soldiers must carry, yet provide them with the capability they need, said Rash.

The Infantry School at Fort Benning, Georgia, leads the effort in deciding what makes it on the RFI list and what does not. All requests for RFI equipment are funneled through the Infantry School. It tests the product, gets feedback from the Army, and eventually makes the decision if a product should be included in RFI or not.

RFI has set up a section on their website where Soldiers can go to make comments or suggestions on equipment. There is also a team that travels to units to gather feedback and suggestions. "We have had great feedback from the Soldiers," said Rash.

For more information on new equipment, check out the PEO Soldier Website <https://peosoldier.army.mil/default.asp>.

(This article was compiled from two Army News Service releases by Joe Burlas and Jacqueline Garrelts.)

SOLDIERS TO COMPETE IN OLYMPICS

Eight Soldiers from the U.S. Army Marksmanship Unit (USAMU) at Fort Benning, Georgia, have been selected to the 2004 U.S. Olympic Team.



Sergeant First Class Charles P. Gartland, a USAMU gunsmith, was chosen by USA Shooting to be the official gunsmith for the 2004 Olympic Games. USA Shooting is the national governing body for Olympic shooting sports in the United States.

The following seven USAMU shooters will compete in 10 Olympic shooting events: **Major Michael E. Anti**, Men's Prone Rifle and Three Position Rifle; **Sergeant First Class Bret E. Erickson**, Men's Trap and Double Trap; **Sergeant First Class Daryl L. Szarenski**, Men's Air Pistol and Free Pistol; **Sergeant First Class Shawn C. Duloher**, Men's Skeet; **Sergeant First Class James "Todd" Graves**, Men's Skeet; **Sergeant First Class Jason A. Parker**, Men's Air Rifle; and **Specialist Hattie J. Johnson**, Women's Air Rifle.

For Anti, 39, this will be his third Olympics. The infantry officer finished in 9th Place in 2000 in the Three-Position Rifle competition and in 18th Place in 1992 in the Prone Rifle event.

Parker will be competing for the second time in the Olympics in Men's Air Rifle. The infantryman finished in fifth place in the 2000 Olympics.

This is the third time Graves will be shooting in the Olympics. In 2000, he won a Bronze Medal in Skeet.

For Szarenski, this will be his second trip to the Olympics but his first time competing in Air Pistol; he will also compete in Free Pistol.

Duloher will compete in Skeet in the 2004 Games. This will be the first Olympics for the infantry Soldier who won the 2001 Skeet World Championship in Cairo, Egypt.

Troops can get reimbursed for 2003 R&R travel

JOE BURLAS, ARMY NEWS SERVICE

Thousands of troops who participated in the early phases of Central Command's Rest and Recuperation Program last year may soon see some extra money in their wallets.

About 32,000 Soldiers who arrived at the Baltimore-Washington International Airport or the Frankfurt Airport in Germany on daily military contract flights between September 26 and December 18 now qualify for reimbursement of out-of-pocket travel airline costs to and from their R&R leave addresses.

When the first R&R military contract flight departed Kuwait City September 25, about 250 Soldiers traveled free of charge either to Frankfurt or BWI. However, they were responsible to pay for "onward travel" costs to and from their leave addresses.

The Army is using a variety of means to inform Soldiers eligible for the reimbursement about how to apply for it, including internal and civilian media news stories, an Army Knowledge Online mass e-mail, and in the cases of recently discharged Soldiers, letters to last known home-of-record addresses.

The Army knows the names of each of the 32,000 Soldiers eligible for the R&R travel reimbursement, said Lieutenant Colonel Bobbie Sanders, deputy chief for G1's R&R Task Force.

Soldiers eligible for reimbursement should file a claim through their servicing finance office. Eligible discharged Soldiers should file a claim directly

through the Defense Finance and Accounting Service, via e-mail, dfas-inr&leave@dfas.mil, or regular mail, DFAS-IN, Contingency Travel Operations, Department 3900, ATTN: R&R Leave, 8899 East 56th Street, Indianapolis, IN 46249-3900.

Travel claim documentation should include:

- A completed Department of Defense Form 1351-2, Travel Voucher.

- A copy of leave documentation (DA Form 31 or R&R leave order) containing a fund cite.

- A copy of the airline ticket, ticket receipt or airline travel itinerary that shows the Soldier — not an Army fund cite — paid for the ticket

Soldiers who no longer have copies of their airline ticket or ticket receipt are encouraged to contact the airlines from which they bought their onward travel connecting flight tickets.

Soldiers who have lost copies and are unable to get other copies of required documentation can submit a lost documentation statement with their travel voucher. That statement must contain the eligible Soldier's name, social security number, leave dates, the name of the onward travel airline used, final destination airport name and the cost of the ticket.

For more information on the program, visit www.armyg1.army.mil/wellbeing/rleave/index.htm.

Correction

In the Jan-Feb 2004 issue of *Infantry Magazine*, in the article titled "New Stryker Defense Proven in Combat" on page 6, the author states that the 3rd Brigade, 2nd Infantry Division is also called Task Force Olympia, and that the brigade's commander is Brigadier General Carter Ham. This information is not correct.

The 3rd Brigade is called simply the Stryker Brigade Combat Team or Arrowhead Brigade Combat Team, and our commander is Colonel Michael Rounds.

General Ham is the commander of Task Force Olympia (TFO) which is a division-level headquarters that is responsible for all the multinational coalition forces operating in northern Iraq. 3rd Brigade is a subordinate element of TFO.

— CAPTAIN MATTHEW PIKE

Assistant S-3, 1-23 IN, 3/2 SBCT, Mosul, Iraq

Reconnaissance and Surveillance Leader Course

The Long Range Surveillance Leader Course located at Fort Benning, Georgia, was developed in 1986 to fill a void that existed in Ranger training when Long Range Surveillance Units (LRSUs) were reactivated that same year. To fulfill this requirement, the course was designed to emphasize the mission essential tasks drawn from lessons learned from previous Long Range Reconnaissance Patrol (LRRP) operations in the jungles of Southeast Asia. During the Vietnam Conflict, LRRP units received training and instruction from the Recondo Course. The course was taught in country and culminated with a live patrol in enemy territory.

The intent of the course is to produce reconnaissance and surveillance leaders by teaching and reinforcing reconnaissance and surveillance technical, tactical, and operational skills, enabling them to train and lead their units. In July 2002, the Long Range Surveillance Leaders Course was renamed the Reconnaissance and Surveillance Leader Course (RSLC). Today, the mission of the Reconnaissance and Surveillance Leader Course is to further develop the combat arms related functional skills of officers, NCOs, and enlisted volunteers eligible for assignment to units whose primary mission is to conduct surveillance, reconnaissance operations, target acquisition, and combat assessment.

In general, there are five courses a year held at Fort Benning with a maximum student load of 36. The course is 33 days long, and all students must have a Ranger School physical within the last 18 months that will carry them through the course. The prerequisites for attendance to the RSLC are limited to Soldiers assigned or possess potential to be assigned to a LRSU, Special Operations, Scout, or Reconnaissance unit. It is recommended that the Soldier be an E-5/sergeant or above, or have spent one year in a Surveillance/Reconnaissance unit and be Ranger or Special Forces qualified with an airborne background. Students should be able to perform basic infantry skills (10 level),



have an understanding of infantry battle drills, and possess basic knowledge of the Army warning order and operations order. They should be skilled in land navigation, be able to swim, and have a working knowledge of Army communications equipment. Soldiers from any branch of service that meet the prerequisites may attend the course. Most classes have a good balance of Army LRS Soldiers, Scouts, and Recon Marines.

Soldiers will receive instruction and execute practical exercises in communications, vehicle and equipment identification, methods of insertion and extraction, operational techniques, and intelligence. Graduation requirements include passing an Army Physical Fitness Test, land navigation written exam and course, communications written and hands-on exams, vehicle identification exam, intelligence exam, and the ability to pass 50 percent of graded patrols during the FTX.

Course Outline

Communications

- Introduction to long range communications
- Radio wave propagation
- Antenna theory & construction
- EWF & reporting procedures
- Common R&S equipment (PRC-150, 138,119, Toughbooks, KL-43)
- Data transmissions
- 2 x COMMEX
- Commo written exam
- Commo hands-on exam

Operational Techniques

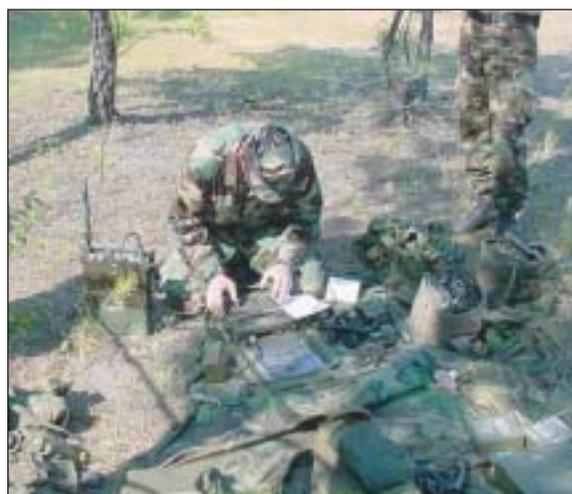
- Target acquisition
- Damage assessment
- Tracking/counter-tracking
- Survival
- Evasion and recovery
- Battle drills
- Surveillance ops
- Reconnaissance ops
- Hide/surveillance sites
- Land navigation
- Caches
- Graded patrols

Intelligence

- Organization of the G2
- Mission folder development
- Imagery
- Debriefing
- Stability and support operations
- ACM TTPs & lessons learned
- Contemporary operating environment
- Military symbology
- IPB
- Intel exam
- Intel retest

Insertion and Extraction Training

- Airborne ops (x2)
- Over the ramp
- C-130
- MC-1C



4th RTB photos

A RSLC student employs HF communications equipment in order to send a data burst transmission during the week one COMMEX.



RSLC students receive SPIES training and certification prior to the FTX and patrolling phase of the course.

- Infiltration/exfiltration techniques class
- Special patrol insertion and extraction system (SPIES)
 - * certification day
 - * extraction from FTX
- Fast rope insertion and extraction system (FRIES)
 - * certification process
 - * insertion into FTX

Vehicle/Equipment ID

- * Battle tanks
 - * APCs
 - * Artillery
 - * Aircraft
 - * NBC
 - * Recon
 - * Radar
 - * C2
 - * ADA
 - * Engineer
 - 141 combine vehicles
 - Vehicle/equip. ID exam
 - Vehicle/equip. ID retest
- Throughout the year, Delta Company, 4th Ranger Training Battalion, also executes mobile training teams (MTTs). Some examples include:
- Vehicle ID MTT – SEAL Tm 8;
 - Full Course MTT – 2nd

- Infantry Division, Korea;
- Fast Rope MTT – 1st Cavalry Division;
- Full Course MTT – 101st Airborne Division, while deployed in Iraq; and
- Urban Surveillance MTT – Rhode Island National Guard LRS.

Course instructors also provide observer/controller (OC) support for LRS rotations at the Joint Readiness Training Center, and unit-run EXEVALs. Units can request MTT and OC support through the U.S. Army Infantry Center’s Directorate of Training at Fort Benning.

Delta Company is also charged with being the proponent for LRS doctrine. This year, that included drafting the new LRS manual FM 3-5.93 (LRS Unit Operations), and hosting the LRS Symposium. Based on lessons learned from Operation Enduring Freedom and Operation Iraqi Freedom, we are working on the following initiatives:

- **Increased mobility,**
- **Increased direct fire capabilities,**
- **Internal or attached service and support capabilities (Medical, Rigger, Mechanic), and**
- **Unity of effort in Force Modernization and compatible equipment between different LRSUs.**

Increased mobility may include the table of organization and equipment (TO&E) addition of GMVs/HMMWVs at the company level and 6x6 ATVs at the team level. Over the last two years of operations,



An RSLC instructor conducts an AAR with students after executing a battle drill during an MTT in northern Iraq.

this issue has been substantiated in the need for LRSUs to have their own vehicle platforms for internal quick reaction forces (QRF), self insertion or extraction, mobile and flexible command and control, and service and support operations.

The need for increased direct fire capabilities has been proven, as some LRSUs were out-ranged and out-gunned while in contact in Iraq. Proposals for sniper weapon systems and light machine guns at the team level and heavier machine guns at the company level are being considered.

Service and support and force modernization issues are being addressed under the new force structure changes.

Army Force structure changes are underway with the implementation of Units of Action (UA) and Units of Execution (UEX). The RSLC cadre are working with the Infantry Center to develop the best course of action for LRS under these new configurations. LRS units will not go away and the need for Surveillance and Reconnaissance units has increased with the Global War on Terror. But the current LRS detachments and companies may not exist as we now know them. Multiple courses of action are being considered. This includes the possibility of a LRSU in select UEX Recon, Surveillance, and Target Acquisition units (RSTAs), or LRSUs consolidated under one Headquarters which would provide LRSUs to UEXs and UAs as needed.

This next year will no doubt bring about many changes to Reconnaissance and Surveillance units at all levels of the force as we continue the fight against terror. The Reconnaissance and Surveillance Leader Course will remain ready and flexible to train and support all units with this mission, producing skilled, competent, and confident leaders to employ these force multipliers on the battlefield as the “All Weather — All Thinking — Anytime — Anywhere – Collector.”

For more information, contact D Company (RSLC), 4th RTB, 10850 Schneider Road, Fort Benning, GA 31905, (706) 544-6216/6831, www.benning.army.mil/rtb/new_lrslc/default.htm.

STRYKER NETT TRAINS SOLDIERS



SERGEANT FIRST CLASS LANCE RATZEL

The Stryker New Equipment Training Team completed training the 3rd Brigade, 2nd Infantry Division (Stryker Brigade Combat Team) and the 1st Brigade, 25th Infantry Division (SBCT). The 3rd Brigade is currently conducting operations in Iraq. Both brigades were trained on the following vehicles:

- ◆ Infantry Carrier Vehicle
- ◆ Command Vehicle
- ◆ Engineer Squad Vehicle
- ◆ Reconnaissance/Scout Vehicle
- ◆ Mortar Carrier Vehicle
- ◆ Medical Evacuation Vehicle
- ◆ Anti-Tank Guided Missile Vehicle
- ◆ Fire Support Vehicle

The Stryker NETT is currently training Soldiers from the 172nd Infantry Brigade in Alaska. They will receive training on all the Stryker variants. The NETT will also conduct training on the new Stryker Embedded Trainer. The Stryker Embedded Trainer will allow Soldiers to simulate gunner skills on their Strykers with the help of computer-aided graphics. The NETT should complete this training by May 2005.

Currently at Fort Benning, the 1st Battalion, 29th Infantry has four Infantry Carrier Vehicles, one Anti-Tank Guided Missile Vehicle, and one Command Vehicle. Additionally, 2nd Battalion, 29th Infantry just received a Mortar Carrier Vehicle (version B). The Stryker NET Team will be training on the Mortar Carrier Vehicle in the near future.

The Stryker NETT sent two Soldiers to Detroit, Michigan, to validate the Stryker Technical Manual (TM). This validation consisted of performing all procedures in the TM to ensure that the tasks could be performed as stated.

The next mission that the Stryker NETT will undertake is training the 2nd Armored Cavalry Regiment at Fort Polk, Louisiana. The 2nd ACR will receive training on all the Stryker variants. Training is expected to be completed by mid 2006.

STRYKER PROPONENCY OFFICE

The Stryker Proponency Office has been involved in many Stryker-related tasks. The main focus has been the new Stryker

Gunnery Manual. This manual is currently being written and is approximately 80 percent complete. This manual establishes guidelines for commanders to train Stryker Brigade Combat Teams in gunnery skills required for combat operations.

The Stryker Proponency Office completed testing of the gunnery tables for the manual on Ruth Range. The testing was a great success and much was learned to ensure Stryker Soldiers have the best training available to them. All four Stryker crews from the 1st Battalion, 29th Infantry qualified on these new tables. They were the first Soldiers to qualify on a Stryker to Infantry School standards in the Army.

The tables were broken down into practice and qualification tables. Each table was shot during the day and night using an M2 .50 cal. machine gun and the MK19 grenade machine gun.

Additionally, much work has been done in developing training devices for the Stryker. Currently, the embedded training device is being fielded on Strykers. This device will train Soldiers on basic gunnery skills using a portable desktop computer. The Multiple Integrated Laser Engagement System is also being tested and fielded for the Stryker equipped units. The Stryker Proponency Office played a key role in testing this system to ensure Soldiers have the best training devices available.



Sergeant Jeremiah Johnson

Soldiers from the 3rd Brigade, 2nd Infantry Division (Stryker Brigade Combat Team) are currently conducting operations in Iraq.



Small Arms Ammunition for the 21st Century:

High Performance Alternatives to the 5.56 NATO Round

STANLEY C. CRIST

It has been four decades since the 7.62mm NATO round began to be superseded as the ammunition of choice for U.S. combat rifles when the 5.56x45mm M193 cartridge – and the M16A1 rifle that fired it – proved better suited to the battlefields of Vietnam. When 5.56x45mm ammunition became NATO-standard about 20 years ago, projectile weight was boosted from 55 grains to 62 grains, and the heavier, “green-tip” round was type-classified as M855 Ball in U.S. service.

Accounts from the Vietnam War indicate that M193 ammo was very lethal at the relatively short engagement distances encountered in jungle warfare, and could penetrate the walls of typical bamboo huts with ease. However, circumstances were much different when, many years later, Soldiers were again sent into harm’s way in the hostile regions of Somalia, Afghanistan, and Iraq.

In Somalia it became all too apparent that the M855 round was lacking the ability to punch through the brick walls and other obstacles commonly encountered in urban areas. As Captain John Hodge related in his article, “The M240B Machine Gun” (*Infantry*, March-June 1997, p. 8), it was noted that “...while the M249 provided good firepower, in some situations, they needed greater range and penetration power.” Equally disturbing were the reports that when M855 ammo was fired from the M4 carbines employed by special



The 6.5x38mm round (center) is able to outdo the 7.62x51mm NATO ammunition (right) in nearly all aspects of performance. The 6.5mm cartridge can transform the M16 rifle into a long range platform, and might give the M249 a capability to defeat “hard” targets comparable to that of 7.62 medium machine guns.

operations personnel, it too often required multiple hits to neutralize an opponent, even though many Somali males were of slight build.

These problems were soon magnified as more individuals were armed with the short-barreled, M4-series weapons. Soldiers of the 82nd Airborne and 101st Air Assault divisions had their M16A2 rifles replaced by M4 and M4A1 carbines in the years prior to conducting combat

operations in Afghanistan and Iraq. Also, in these units and others, like the Stryker brigades, the standard M249 light machine gun (LMG) is being phased out in favor of a paratrooper model with a barrel as short as that of the M4 carbine.

While these alterations do result in a weapon that is lighter and easier to handle in the confined interior spaces of infantry vehicles, utility helicopters and urban buildings, terminal performance suffers. The primary mechanism behind the lethality of 5.56mm ammo is the fragmentation that results when the bullet impacts soft tissue at high speed. The truncated barrels do not create sufficient velocity to produce this effect beyond a short distance, nor do they provide sufficient “reach” to engage enemy personnel at the extended ranges encountered in desert and mountain warfare.

Given the trend to acquire lightweight small arms with abbreviated barrels, combined with the inherent limitations of the M855 ball round, what can be done to regain the lost capabilities?

Option 1: Create a 5.56mm “heavy ball” load

The simplest approach to improving the combat potential of 5.56mm weapons is to increase bullet weight. This has been done on a limited scale by special operations forces, which have used Mk262 competition ammo in the mountains of Afghanistan. The 77-grain open tip match



The 6.8x43mm special purpose cartridge (left) was developed to provide special operations forces increased incapacitation potential in close combat. However, to make a round that is better suited for general purpose use, the SPC case should be necked down and loaded with a more ballistically-efficient 6.5mm (center) or 6mm bullet (right).

bullet reportedly is effective when used against unprotected enemy personnel, but the open-tip design is less capable than a full metal jacket (FMJ) projectile for penetration of barricades, brick walls, vehicles and other “hard” targets.

In the 1960s, a German company developed a “heavy ball” load with a steel-jacketed, 77-grain bullet that would be a viable quick-fix to the problem, since long range trajectory and hard target penetration appear to be better than that of the M855 round. The manufacturer was unable to generate any interest at the time, no doubt because the heavy projectile was incompatible with the slow rifling twist used in M16A1 barrels. However, since it would be stabilized by the faster twist that is used in the M16A2 and M249, it could be worthwhile to either resurrect this loading, or create a FMJ version of the 77-grain Mk262 ammo.

Although it performs well in some circumstances, the 5.56x45mm cartridge has been found wanting in others, and lacks the growth potential necessary to meet these demands. While a heavier bullet would certainly boost the performance of 5.56mm NATO, if a substantial improvement is desired it will be necessary to adopt an entirely new caliber, one that is more capable than the current loading. It would

be best if any new cartridge is dimensioned so current and future weapons can be reconfigured to fire it, with minimal expenditure of time and money. This limits cartridge overall length to that of the 5.56x45mm round, but allows some flexibility in regards to case diameter. Rifle modifications should be restricted to replacement of the barrel, bolt, and magazines, while conversion of belt-fed LMGs will necessarily be a bit more involved, requiring changes to the feed tray and top cover in addition to installing a new barrel and bolt.

Option 2: Load a bigger bullet in the 5.56x45mm case

The second easiest way to increase performance is to “neck up” the 5.56x45mm case to accept a 6mm bullet, something that has been done by civilian competition and varmint shooters who wanted more capability than the original round could provide. The result is the “wildcat” 6x45mm cartridge (not to be confused with the 6x45mm XM732 round that was developed in the 1970s), which can be loaded with bullets weighing 80-90 grains, with ogives that allow overall cartridge length to be the same as M855 ball.

To achieve a flat trajectory, and thereby improve long range capability, requires a



Relatively low cost options for improving performance of 5.56mm weapons are the 5.56x45mm “heavy ball” (left), 6x45mm (center), and 6x41mm (right) cartridges. All three are compatible with 5.56x45mm magazines and bolts as well as the metallic links used to feed the M249, which would greatly simplify the conversion process.



Small caliber, high-velocity ammunition: (left to right) U.S./NATO 5.56x45mm, Russian 5.45x39mm, and Chinese 5.8x42mm. The 5.8x42mm is the best combat rifle/LMG round currently in service. It has more growth potential than any of the other cartridges shown.

higher degree of ballistic efficiency than can be provided by the 6x45mm. Since very streamlined bullets tend to have greater length, to load such projectiles into the basic 5.56mm cartridge case will make it necessary to shorten the case slightly. Although the smaller powder capacity will reduce muzzle velocity, the superior projectile shape results in more retained velocity at the target. Case length depends on the diameter and shape of the projectile selected for use, but should be about 41 mm with a 6mm bullet, and possibly somewhat shorter if caliber is 6.5mm or larger.

Option 3: Use a bigger bullet and a bigger cartridge case

Recently there was an effort by individuals at the Special Operations Command, in collaboration with an ammunition producer, to create a more potent special purpose cartridge (SPC) for close combat. The 6.8x43mm case has a larger volume than that of the 5.56x45mm, and holds enough propellant to give a 115-grain projectile a respectable velocity. The 6.8mm SPC will definitely hit harder than M855 ball at all engagement distances, but because the bullet has only modest aerodynamic qualities, trajectory and retained velocity are less than optimal. However, the SPC case has been necked down to 6.5mm and

6mm, allowing it to be loaded with projectiles of higher ballistic efficiency, and these smaller-caliber versions would undoubtedly be better general purpose rounds.

With the possible exception of some of the SPC variants, the cartridges covered to this point are not truly adequate for engagements of point targets with the M16A2 rifle or M4 carbine beyond about 500 meters. In 1998, a civilian competition shooter began a quest for a cartridge that could give the M16 family the capability

for precision shots out to twice that distance. The end result was a 6.5x38mm round – dubbed the 6.5mm Grendel by the manufacturer (Grendel was a powerful mythological monster) – that can attain good velocities with medium weight bullets of very high ballistic efficiency. When fired from a 20-inch barrel, the 6.5x38mm shoots highly-streamlined bullets of 100-123 grains with a flatter trajectory and less wind drift than 7.62mm M80 Ball ammo, and does so with negligible recoil.

Which is the best cartridge for upgrading

the combat capability of 5.56mm infantry weapons depends on just how much improvement is desired. Clearly, a 5.56mm heavy bullet load would be the most economical choice, because no alterations to the weapons are necessary, but expected performance increase is minimal. The 6x45mm and 6x41mm rounds would provide more significant gains, and require little more than a barrel change, since these rounds fit existing bolts, magazines, and metallic links.

The 6.8x43mm and 6.5x38mm are the most expensive alternatives, requiring replacement of bolts, barrels, magazines, as well as the development of new machine gun links, but they are by far the most effective options. The 6.8x43mm cartridge would provide a substantial improvement in close combat capability, which was its stated design purpose. However, the streamlined projectiles fired by the 6.5x38mm round deliver vastly superior all-around performance, combining improved penetration of battlefield obstacles with enhanced capability to “reach out and touch someone” at long distance.

When it was learned in the early 1990s that the Chinese Army was planning to field a new family of small arms, it was widely thought that the new weapons would be chambered for the Russian 5.45x39mm cartridge. To the surprise of experts worldwide, the Chinese instead created a unique 5.8x42mm round that, by any objective standards, must be considered the best assault rifle cartridge currently in service. The U.S. Army should take similarly bold action and adopt a new, more capable rifle cartridge so that Soldiers will be better armed to meet the challenges that they will encounter on the diverse battlefields of the 21st century.

Stanley C. Crist served in the 3rd Battalion, 185th Armor, and has worked as a small arms ammunition consultant. He is the author of numerous articles on small arms testing and evaluation, and his work has appeared in *Infantry*, *Armor*, and *Special Weapons for Military and Police* magazines.

Velocity (ft/sec) – 20.0" barrel		Range (meters)						Deflection @1000m
Cartridge / Bullet	0	100	300	500	800	1000	10 mi/hr crosswind	
5.56x45mm 62gr	3100	2731	2076	1529	1032	895	209 in	
5.56x45mm 77gr	2750	2481	1989	1564	1117	971	174 in	
6x45mm 87gr	2650	2396	1931	1530	1110	971	173 in	
6x41mm 90gr	2600	2375	1958	1591	1177	1022	154 in	
6.8x43mm 115gr	2700	2417	1903	1470	1055	929	191 in	
6.5x38mm 108gr	2700	2497	2117	1774	1345	1142	124 in	
6.5x38mm 123gr	2600	2426	2098	1797	1410	1211	109 in	
7.62x51mm 147gr	2700	2473	2051	1676	1238	1063	145 in	

Energy (ft-lbs) – 20.0" barrel		Range (meters)						Maximum Trajectory
Cartridge / Bullet	0	100	300	500	800	1000	when fired to 1000m	
5.56x45mm 62gr	1323	1027	593	322	146	110	265 in	
5.56x45mm 77gr	1293	1052	676	418	213	161	242 in	
6x45mm 87gr	1357	1109	720	452	238	182	250 in	
6x41mm 90gr	1351	1127	766	506	277	209	228 in	
6.8x43mm 115gr	1861	1492	925	552	284	220	272 in	
6.5x38mm 108gr	1748	1495	1075	754	434	313	181 in	
6.5x38mm 123gr	1846	1607	1202	882	543	400	172 in	
7.62x51mm 147gr	2379	1995	1373	917	500	368	194 in	

Velocity (ft/sec) – 14.5" barrel		Range (meters)						Deflection @ 1000m
Cartridge / Bullet	0	100	300	500	800	1000	10 mi/hr crosswind	
5.56x45mm 62gr	2750	2408	1802	1320	958	848	230 in	
5.56x45mm 77gr	2500	2245	1782	1396	1038	924	189 in	
6x45mm 87gr	2500	2254	1806	1428	1061	942	182 in	
6x41mm 90gr	2450	2232	1830	1483	1115	986	163 in	
6.8x43mm 115gr	2600	2323	1822	1405	1028	912	197 in	
6.5x38mm 108gr	2600	2401	2030	1696	1288	1105	131 in	
6.5x38mm 123gr	2450	2282	1965	1677	1318	1144	118 in	
7.62x51mm 147gr	2500	2279	1870	1515	1131	995	161 in	

Energy (ft-lbs) – 14.5" barrel		Range (meters)						Maximum Trajectory
Cartridge / Bullet	0	100	300	500	800	1000	when fired to 1000m	
5.56x45mm 62gr	1041	799	447	240	126	99	332 in	
5.56x45mm 77gr	1069	862	543	333	184	146	293 in	
6x45mm 87gr	1207	982	630	394	217	171	281 in	
6x41mm 90gr	1199	996	670	440	249	194	258 in	
6.8x43mm 115gr	1726	1378	847	504	270	212	293 in	
6.5x38mm 108gr	1621	1383	988	690	398	293	197 in	
6.5x38mm 123gr	1639	1422	1054	768	474	357	189 in	
7.62x51mm 147gr	2040	1694	1141	749	418	323	249 in	

A REVOLUTION (IN MILITARY AFFAIRS) IN IRAQ

CAPTAIN MATTHEW T. ARCHAMBAULT

There is a revolution in military affairs underfoot, and it can be seen today in combat operations conducted in the Iraq theater of operations. The necessity of the fight drives this change, and the mission and the leaders fighting it at the company level make it happen. I stress the company level because I watch it around me as my platoon leaders and squad leaders take the weapon systems at their disposal and employ them to meet their purpose. Witness the future of the Army as leaders, branch/MOS immaterial, take the tools that the Army makes available and execute their missions. This article will cover my situation (METT-TC [mission, enemy, terrain, troops and time available, civilians]) and what actions I am taking as a commander to enable my subordinates. I'll review the challenges and obstacles I am encountering and what I'm doing to overcome, reduce, and bypass those obstacles. I'll close with my observations.

Situation (Friendly)

I deployed my company, pure, to Kuwait in February. Upon arrival, the division task organized and my company became part

of an armor task force. Subsequently, I gave up a mechanized infantry platoon and received an armor platoon minus tanks. While in Kuwait, we drew three M1114 HMMWVs and would subsequently draw an additional M113, one M1197 (Air Force armored HMMWV), and two more M1114s while in Iraq. My initial task organization looked something like Figure 1.

Situation (Terrain)

The task force (TF) area of operations (AO) terrain is quite diverse. Much of the diversity comes from the Tigris River, which bounds our task force AO to the north and east, and the canal system. These two phenomena affect all components of OCOKA (observation and fields of fire, cover and concealment, obstacles and movement, key terrain, and avenues of approach).

Observation ranges from two kilometers to 200 meters. Where the canals are present, vegetation can be quite dense. Likewise, where there are no canals, near-open desert results. There are also random rises in elevation throughout the AO, which tend to limit observation around the

avenues of approach to 200m.

The canals facilitate cover and concealment directly because they allow individuals to utilize them for concealed movement and hiding caches. The vegetation can also get dense enough to obscure thermals from both Bradley fighting vehicles (BFVs) and also unmanned aerial vehicles (UAVs).

The irrigation canals that run throughout the terrain with no discernible pattern or plan are obstacles to traffic. The canals vary in size from hand/spade dug to concrete reinforced. Most canals have bridges of varying types spanning their width with as much variety as the canals themselves. Some can support a 38-ton vehicle and some cannot. These bridges can easily become choke points for improvised explosive devices (IEDs) and/or ambushes. The terrain that is laced with the canals also tends to be wet and soft, creating restrictive terrain for nearly all traffic except dismounts. The areas without canals tend to be dry, arid desert and can support all sizes and shapes of vehicles.

There is not any key terrain in the AO that we are determined to hold on a permanent basis. There are aspects or terrain features which have importance during operations. These include the bridges over the canals and rivers.

There is a main high-speed avenue of approach, the ground line of communication (GLOC) in my area of responsibility. This highway is the main focus of IEDs and small arms fire (SAF), but occasionally IEDs and SAF occur on other roads and areas in the TF AO. The river itself is also an avenue of approach for the enemy, particularly from its far side. We also identified the tendency for roads and trails leading from the river to the GLOC to be key avenues of approach.

There are two main civilian population

Figure 1 - Prior to Team Task Organization

HQ PLT	RED	GREEN	BLUE
2 x M2A2 ODS 2 x M998 2 x M923 M113 Medics M113 Maintenance M88 M113 2 x M923 Additional 2 x M1114 M1197 M113 Total Soldiers: 30+	4 x M2A2 ODS Medic 3 Squads Total Soldiers: 40+	2 x M1114 Medic 1 Squad Total Soldiers: 17	4 x M2A2 ODS Medic 3 Squads Total Soldiers: 30+

centers in my AO. One town numbers approximately 2,000 people, while the smaller town has a few hundred. The rest of the population lives throughout the AO on farms in varying types of dwellings. Some of these dwellings are built into compounds with several buildings surrounded by a wall.

Situation (Enemy)

My area of operations has mostly Sunni Muslims. There are as many as 13 tribes spread throughout. The enemy uses the living conditions and Arabic culture to his advantage. He readily blends in with his surroundings. He can move freely, staying where he wants, not because the population directly supports him, but because the Arabic culture does not directly deny him freedom of movement.

The enemy's main choice of weapons in my AO are IEDs along the GLOC. The enemy uses a very deliberate technique for emplacing IEDs. He tends to use SAF as a technique to influence an area in order to facilitate emplacing an IED. He favors this weapon because it reduces the risk to the enemy himself. The IEDs vary in sophistication, with detonation methods varying from wireless remote control to hard wire command detonation. These require a deliberate plan for their emplacement; therefore the enemy must expose himself in order to do so.

Situation (Equipment)

We deployed with the modified table of organization and equipment (MTOE) for a mechanized infantry company. As the task organization shows, there were some changes with regard to the weapon systems and weapon platforms. Each vehicle has inherent advantages and disadvantages. Some of these advantages and disadvantages became more apparent or transparent based upon the mission and use in a combat environment.

I considered a variety of things in analyzing each vehicle. The criteria for evaluating the different vehicles available in the AO were (in order of importance decreasing from top to bottom):

- ★ Maneuverability,
- ★ Troop capacity,
- ★ PLL (prescribed load list) on-hand,
- ★ Night capability,
- ★ Field of vision,
- ★ Survival,
- ★ Vehicle signature,
- ★ Weapon capability, and
- ★ Maintenance impact.

I put these criteria into a relative values decision matrix. The criteria weights are noted below the matrix as well as the sensitivity

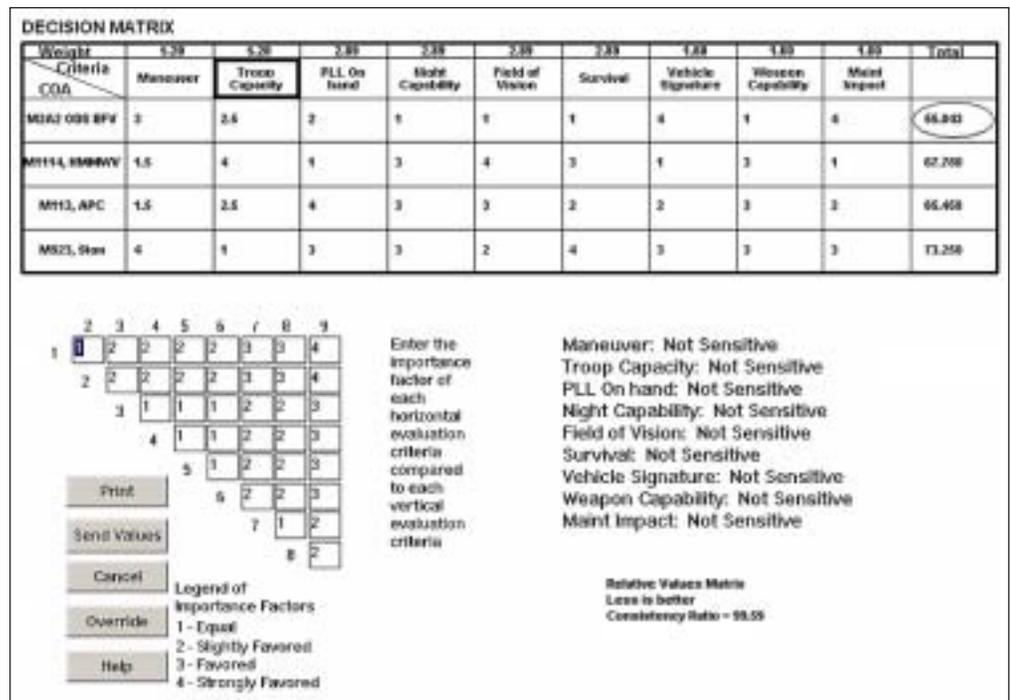


Figure 2

analysis. (See Figure 2.)

Maneuverability is vital in this area of operations. I defined it as the ability of the vehicle to negotiate the canal systems and narrow roads off the main supply routes (MSRs). Troop capacity is the amount of Soldiers, not including the vehicle crew (driver, TC, and gunner) that the vehicle can carry. PLL on-hand is the readily available nature of parts that the forward support battalion (FSB) keeps on hand for the maintenance teams to fix the vehicles. Night capability reflects the vehicle's inherent capability for scanning and acquiring targets during hours of limited visibility. The field of vision relates to the perspective of the TC and his ability to command and control the vehicle. (A note on this: the M114 offers terrible fields of view. The only person with effective scanning ability is the gunner.) Survivability is the effect of the armor and protection provided for the Soldiers. Vehicle signature is the amount of noise the vehicle creates and its ability to move stealthily along the terrain. Weapon capability is the capacity for the vehicle to transport different weapons of varying magnitude. Finally, the maintenance impact is the observed durability of the vehicles to the excessive usage rate per week.

The outcome from the matrix is that of the available vehicles the Bradley fighting vehicle is the optimal choice available at this time to my team. The second choice is the M113.

Execution

My first concern was to create flexibility in my platoons with regard to missions and tasks. The task organization that I inherited dictated that my mechanized infantry platoons would conduct certain missions and my armor (less) platoon would conduct other missions. The problem with this is twofold. First, one unit dedicated to one task is just that — one-dimensional. The enemy in this sector, if not throughout all of Iraq, is multi-dimensional and requires many different tactical approaches. This original

Figure 3 - Proposed Task Organization			
HQ PLT	RED	GREEN	BLUE
CDR 2 x M2A2 ODS M998 1SG M998 2 s M923 M1114 Medics M113 Maintenance M88 M113 2 x M923 Total Soldiers: 30+	3 x M2A2 ODS M1114 M1197 Medic 2 Squads Total Soldiers: 30+	2 x M2A2 ODS 2 x M1114 M113 Medic 2 Squads Total Soldiers: 30+	3 x M2A2 ODS M1114 M113 Medic 2 Squads Total Soldiers: 30+

task organization hampered our ability to react to actionable intelligence. Secondly, a unit executing the same mission repeatedly for a yearlong deployment would quickly succumb to complacency. Complacency breeds many problems, accidents, and timidity.

Any patrol cycle based on this task organization would be unbalanced. This leads to my second concern, which was to establish a coherent and stable patrol cycle. I wanted my platoon leaders to manage their own manpower and maintenance. One assigned task per platoon for 360 days would lead to burnout and low morale. That is too much predictability. There needs to be variety and change. I wanted to build some expectation for the Soldier, so he could forecast when he would get a change. It would provide the Soldier something to look forward to every two weeks.

My third concern was to build a team. I wanted for the platoons to look at themselves as one team. One platoon executing every raid might think of itself as superior, while another platoon executing nothing but TCPs might think of itself as inferior. A parity of platoon strengths and weaknesses would allow the platoons to compete with each other on an even playing field and create an esprit de corps. Further, a balanced task organization would allow the platoons to learn from each other. Each platoon would find itself bounded only by the limits of its own leadership and their imagination.

In order to accomplish this I organized the company as shown in Figure 3.

The M2A2s that I attached to the Green

PLT came with crews. The platoons accepted full responsibility for all other vehicles and equipment that they gained. The platoon leader then had the task to manage this manpower and equipment to the mission. I aided him a bit further by providing him with the patrol cycle shown below. This cycle would rotate platoons

every two weeks (platoons rotating A to C and B to A). At the end of every two-week period I conduct a patrol cycle after actions review (AAR). This allows the platoons to learn from each other and permits the first sergeant and me to get a pulse on how mission is straining our manpower and equipment. The lessons and comments from these AARs would direct missions for the next two weeks. (See Figure 4.)

Executing missions with this task organization and patrol cycle demonstrated its worth. Regardless of what platoon is executing which patrol cycle, when the task force tactical operations center (TOC) calls up at 2200 hours for a platoon to conduct a cordon and search on actionable intelligence, I have only to call the "C" Patrol, the quick reaction force (QRF). Platoons can execute any role in a company cordon and search because they all have the capability for assault, support, and security. The platoons have the resources to execute and day-by-day the platoon

Figure 4 - Example Patrol Cycle

TIME	DAILY		
0500-0600	"A" PLT AM Patrol		"C" PLT RED2
0600-0700			
0700-0800			
0800-0900			
0900-1000			
1000-1100			
1100-1200			
1200-1300		"B" PLT PM Patrol	
1300-1400			
1400-1500			
1500-1600			"C" PLT RED1
1600-1700	"A" PLT PM Patrol		
1700-1800			
1800-1900			
1900-2000			
2000-2100			
2100-2200			
2200-2300			
2300-0001			
0001-0100		"B" PLT AM Patrol	"C" PLT RED2
0100-0200			
0200-0300			
0300-0400			
0400-0500			

"A" PLT

- * Conducts flash TCPs.
- * Focuses upon dismounted patrols through sector.
- * Enforces Ishaqi curfew.
- * Conducts LP/OPs at NAIs.
- * Provides observers for TF fire missions.

"B" PLT

- * Conducts flash TCPs.
- * Supports ICDC.
- * Conducts direct reconnaissance.

"C" PLT

- * Provides personnel for TM ROCK missions.
- * Train ICDC.
- * BPT provide personnel and vehicle IOT support CDR
- * REDCON 1.
- * REDCON 2.



Tech Sergeant Scott Reed, USAF

Soldiers with Task Force 1-77 patrol the city of Balad, Iraq, under the overwatch of an OH-58 during operations in May 2004.

leaders, the company commanders of tomorrow, are learning and becoming more confident with different weapon systems and vehicles.

Challenges

The road to this point is not smooth. Many of the obstacles and challenges arise from the old mindset and the rigidity of our own minds. This point is prevalent in all the items I will discuss below.

With any unit that has vehicles, maintenance is and must be a huge focus. We forecast correctly that maintenance would be a major challenge throughout our rotation. My executive officer ensured we had plenty of PLL on hand, loaded, and available for 60 days after our deployment. Based upon the nature of our AO, the vehicles easily put on about 700 miles per week. This has a huge impact upon the vehicles. It is simply above and beyond the historic trend for these vehicles, at least back the past five years. The BFVs and HMMWVs break despite the Herculean efforts of my maintenance team. With this in mind, 10-level maintenance becomes crucial. This problem leads to another that I'll discuss next, but it revolves around the crew and NCOs ensuring that preventive maintenance checks and services (PMCS) are done properly. As with most things, the basics are crucial for any mission success. The XO instituted a maintenance plan to ensure that vehicles get QAQC'd (quality assurance, quality control) on a weekly basis. The important part remains, though, that the platoon's leadership ensures PMCS of vehicles.

Training is not a peacetime issue. Complex, crew-oriented weapon systems like the BFV require particular attention to crew qualification and training. You will not have an effective force if one's primary weapon systems cannot engage and destroy the enemy. FM 23-1 has excellent standards, but they center around fighting on a linear battlefield against an enemy's mechanized forces. The enemy on this noncontiguous battlefield does not wear uniforms let alone ride in mechanized vehicles. They operate in

pairs and sometimes solitary. They will engage from close range and on the oblique angles. The focus of the Bradley gunnery must therefore change to adapt the Soldier's training on the weapon system to the enemy. The mission strain upon the crew also demands that the platoons train additional crews. My solution to this is for each platoon to train and battle roster three crews per BFV. This creates some flexibility when casualties occur.

The inherited task organization that I remedied for the short term while in Iraq reveals a more deep-seated issue: the MTOE. The MTOE dictates the amount of radios, crew-served weapons, nonexistent radios, individual weapons (pistols, shotguns, M240B tripods), and personnel. I have more vehicles than I have radios to put in them. I don't have enough crew-served weapons to put on every vehicle. Focusing though on personnel, I must get creative in order to execute mission. On a traditional HIC (high intensity conflict) battlefield, the XO would be my wingman. Here, I must move with two to three other vehicles. Where do those drivers, TCs, and gunners come from? Where do the vehicles come from? I utilize my

new task organization and my patrol cycle to remedy these problems currently, but these are short term fixes.

Observations

I do not believe that my company team is unique. As I look around this division (the 1st Infantry Division stretches its sector from Baji to just north of Baghdad), I see units of all branches conducting combat missions. Artillery units are executing combat patrols to find, fix, and finish the enemy, without howitzers or paladins. Armor units are executing combat patrols to find, fix, and finish the enemy, without their tanks. Sure, there are paladins and M1A1s in sector, but the old concept of branches and specialization is over. Speaking of specialization, the Infantry falls into this discussion as well. There are infantry units from the 1st Infantry Division, Fort Lewis' Stryker Brigade, the 25th Infantry Division, the 82nd Airborne, and random National Guard elements here in Iraq. Is the 82nd jumping? Is the 25th walking everywhere? Are the mechanized/motorized Soldiers staying on their vehicles? The answer is no. Leaders are taking the men and resources at their disposal, doing a METT-TC analysis with their TLPs, and executing mission ... every day. Sometimes they have M1114s, sometimes they have M2s, sometimes they have M113s, and sometimes they have M923s (5-tons). Sometimes they have a combination of all of these vehicles. The lynchpin is that not one of these vehicles is the savior of the Infantry or the combat arms or Iraq. They have their advantages and their disadvantages. The division and the Army is relying upon LEADERS to execute mission with the men and resources available. We are creating a branch of warriors. The warrior that can best utilize the men, vehicles, and weapons at his disposal, wins.

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THE BRIGADE S1 AND PERSONNEL ACCOUNTABILITY

MAJOR STACY HOLBROOK

One of the most important roles a brigade or battalion S1 must perform is the accurate accountability of personnel. Without an accurate accounting practice we cannot balance Military Occupational Specialties (MOS) within our brigades, battalions, and companies. We can't request proper replacements if our database, eMILPO, is incorrect, and we cannot go to the military decision-making process (MDMP) step II - Mission Analysis, without the proper knowledge of assets available when it comes to personnel. Without knowing the status of our personnel, we cannot do a proper personnel estimate for MDMP. One of the first things officers, NCOs, or new Soldiers learn in the military is to account for personnel. Accountability of Soldiers starts at the section sergeant level and is reported daily up through the chain of command. A brigade or battalion S1 has specific responsibilities that include manning, personnel services, personnel support, and headquarters management. The manning responsibility is divided up into personnel readiness management, personnel replacement management, and personnel accounting.

Personnel Accounting includes:

- Maintaining a personnel information database;
- Accounting for military personnel individually;
- Collecting, processing, and storing critical information about Soldiers, units, and civilians; and
- Accounting for civilian personnel. (Contractors)

The mission of the Army's Personnel Accounting and Strength Reporting (PASR) system is to account for Soldiers and Army civilians; report other strength-related information, such as duty status, unit of assignment, and specialty code; and update command data bases at all levels. Information gained through PASR provides readiness managers the details necessary to analyze personnel strength as a component of combat power. This information is also used by other personnel system managers to plan and provide their support.

Personnel accounting is the reporting system for recording by-name data on Soldiers and Army civilians when they arrive and depart units and when their status changes, for example, grade changes, and duty status changes.

Strength reporting is also a numerical end product of the accounting process. The PASR process starts with a strength-related transaction submitted at battalion and separate unit level and ends with a data base update at all echelons of command to the Total Army Personnel Database (TAPDB).

Assigned strength includes all Soldiers currently assigned on orders to the unit. Operational control (OPCON) unit strength is included in the personnel strength report of the parent unit of assignment (supporting commander). OPCON units are normally temporary in nature and are placed on the task organization for a

specific operational mission. Generally, OPCON units are not logistically supported (fed, housed, armed, or receive replacements and mail) by the gaining commander. When an OPCON unit is receiving those services, clarification of the command and control relationship needs to be made. Generally, a unit receiving services is attached. Although the gaining commander does not include the strength of an OPCON unit in the strength report, its personnel readiness is operationally important to the gaining commander. OPCON Soldiers should be reported by the task force and annotated in the remarks section of the personnel status reports of the parent and gaining organization.

Attached unit strength is included in the personnel strength report of the gaining commander. Attached units are often habitually attached and fed, housed, armed, and receive replacements, mail, and so forth, from the gaining commander. Commanders/S1s of units attached to other units must provide the gaining headquarters with a battle roster electronically or on a standard floppy disk. The next higher element that owns both units should provide attachment orders. (Ex: 1-1 BN and 1-2 BN are attaching a company to each other, and then the brigade that owns the two battalions will provide the orders.)

Direct support (DS) and general support (GS) or any other term that aids in defining support relationships is not the means to determine command and control relationships. A DS and GS unit can be OPCON or attached.

Who Cuts Attachment Orders?

Unit	Attached To	Cuts Orders
Co	Bn w/in same BDE	BDE
Co	To a different BDE	DIV
BN	To a different DIV	Corps
Co	To a different Corps	Army

The accuracy of these reports starts at the company level and they are then forwarded to the battalion S1. Units often fail to report on time and with accurate numbers to brigade, causing brigades to submit inaccurate and untimely reports to division headquarters. The brigade S1 must reconcile reports with the brigade medical company and the Mortuary Affairs section within the forward support battalion to ensure accuracy.

Once a Soldier is placed in the medical evacuation process, it becomes difficult for units to track the Soldiers' whereabouts. FM 4.02.6 states that "Prompt reporting of patients and their health status to the next higher headquarters is necessary for the maintenance of a responsive personnel replacement system and the Army Casualty System." It is vital that the unit that had the casualty report to battalion, the battalion aid station reports to the

battalion and also reports back to the unit that had the casualty with an update on the Soldier. The battalion aid station (BAS) must keep the daily disposition log and patient evacuation and mortality report updated with the latest information in order to effectively track Soldiers. The battalion S1 must then report the status to the brigade S1 as well as the BAS reporting to the brigade surgeon. The daily disposition log (DDL) is maintained by echelon I (unit-level) and echelon II (division-level) medical treatment facilities (MTFs). The information from this log is extracted, when required, and provided to the S1 and G1 or supported unit requesting such information. The DDL is also the primary source for the information needed in the patient evacuation and mortality report (PE&MR). The key to effective tracking of casualties is that reports must go both ways. When reports are sent to division, they should be returned to brigade with updated information.

If the Soldier is evacuated outside of the level II care that the brigade provides, then the accountability of the Soldier becomes particularly hard to control. It is important that this be reported to division in order for the G1 to assist in accountability. The brigade S1 or surgeon should develop ways to contact all level III and higher care to check on status of Soldiers. Once a Soldier is in the medical system, the medical community has the responsibility to account for the Soldier. This does not alleviate the responsibility of the unit tracking the Soldier. The Patient Disposition and Reports Branch, Patient Administration Section (PAD) of the Division Medical Operations Center (DMOC) is required to track all medical patients that are transferred outside of the division area of operations. The patient disposition and reports branch is responsible for coordinating patient disposition throughout the division. The corps support hospital (CSH) tracks patients through the medical regulating officer (MRO). Once a Soldier arrives at a level III hospital, they are placed in a DOD database; that system is the Armed Services Medical Regulating Office (ASMRO). This is a stand-alone database that tracks the status and location of any Soldier that has arrived at a level III or higher facility. This system is used for

UNIT	MILITARY														P	P
	COMPONENT						DA		DA		AITH	ASGN	ML	CV		
	AITH	ASGN	AITH	ASGN	AITH	ASGN	ML	ML	CV	CV						
ENL	ENL	WO	WO	OFF	OFF	AUTH	ASGN	AUTH	ASGN	TOT	TOT	HEM	HEM			
UNIT TOTAL	E	E	O	O	E	O	E	E	O	E	E	E	E	E		
JOINT SERVICES																
AIR FORCE																
NAVY																
JOINT SERVICE TOTAL	E	E	O	O	E	O	E	E	O	E	E	E	E	E		
ALL FORCES SUBTOTAL	E	E	O	O	E	O	E	E	O	E	E	E	E	E		
NONMILITARY																
CCC																
AVCS																
NSIC																
EDUC/CTH																
MCI																
TRNSCOM																
BIOL/OSSE																
UNRESPT CAT I																
UNRESPT CAT II																
NONMILITARY TOTAL	E	E	O	O	E	O	E	E	O	E	E	E	E	E		
ALL FORCES TOTAL	E	E	O	O	E	O	E	E	O	E	E	E	E	E		

Example daily PERSTAT with joint forces and civilian contractors

transferring a patient from one facility to another facility. Requests to transfer patients from OCONUS to CONUS MTFs uses a system called Defense Medical Regulating Information System (DMRIS) and is used by the Joint Medical Regulating Officer (JMRO). The Air Force will use this system to receive and plan requests for patient transportation via Air Force Aeromedical Evacuation System. You will need the Soldier's full name and SSN in order to get his status. This status is updated daily and the Soldier will stay in the system until they are discharged from a level III, IV, or V facility. Both ASMRO and DMRIS are great places to gather information on a patient that has been entered into the system. Some items that are included in the report are the Soldiers' name, SSN, status, rank, age, sex, and surgery dates if applicable.

The brigade S1 must develop standard reports and a standard report timeline for the brigade SOP that supports the division reports. All S1 personnel in the battalions and brigade should be trained on the proper procedures to submit these reports. It must be emphasized by the command sergeants major (CSMs) at battalion and brigade about the accuracy and timeliness of the reports. Battalion and brigade level commands should reconcile the reports from the units, graves registration point, and the forward support medical company (FSMC) prior to submission to higher. Medical coverage is provided on an area basis and thus the FSMC may receive personnel not assigned or attached to the brigade they are supporting. These personnel must also be reported to division in order for division to reconcile for all units

within the area of operations. Personnel readiness managers at all levels of command reconcile strength reports from this network with reports from other sources in the following manner:

- Receive unit strength reports/personnel status report (PSR).
- Cross-check PSRs for accuracy with tactical reports, medical clearing station, mortuary affairs, and so forth.
- Prepare PSR.

The brigade S1 and battalion S1 must have access to LAN capabilities in order to process transactions on eMILPO and MyPay for their subordinate units. It is critical that the brigade provide a SEN, (Small Equipment Node) for MSE (mobile subscriber equipment) or SMART-T (secure mobile anti-jam reliable tactical - terminal) to the FSB where the brigade S1 section and battalion trains are normally located. This should be SOP for all units in order to support Soldiers on the battlefield.

The brigade S1's personnel accounting and strength reporting responsibilities include the following critical tasks:

- Collect, summarize, and submit personnel strength reports.
- Compare manual personnel strength information against eMILPO information; identify and resolve discrepancies.

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M113 APC: Four Decades of Service and Still Showing Potential

STANLEY C. CRIST

The first version of the M113 armored personnel carrier (APC) was introduced in 1960. Operated by a driver and track commander (TC), it was designed to transport a squad of 11 infantrymen across a hostile battlefield. To maximize strategic and tactical mobility, the M113 was made to be air-transportable, air-droppable, and swimmable, thereby enabling it to be employed in a wide range of combat scenarios.

In 1964 the original 209 horsepower (HP) gasoline engine was replaced by a more fuel-efficient 212 HP diesel package, which increased cruising range by 50 percent. Since diesel fuel is less flammable than gasoline, this change also improved crew survivability. This version — the M113A1 — was the primary ground combat vehicle used by American, Australian, and South Vietnamese forces in the Vietnam War.

The suspension and cooling system were upgraded in 1979, resulting in the M113A2. This variant was employed in the 1989 invasion of Panama, during Operation Just Cause, where it was a valuable asset to U.S. infantrymen. Large numbers of the A2 also participated in Operation Desert Storm, albeit in support roles, as combat duty in that 1991 action was the province of the M2 Bradley fighting vehicle.

Because the M113A2 had difficulty keeping pace with the Abrams tank and Bradley fighting vehicle, in 1987 the M113A3 was created. A 275 HP turbocharged engine increased top speed by more than 10 percent, producing cross-country performance that is officially considered comparable to the Abrams and Bradley. To enhance survivability of both men and machine, spall liners were installed and the single internal fuel tank was replaced by dual armored tanks mounted externally on the rear of the vehicle.

In a quest for even better performance, in 2002 the Australian Army initiated a program to “stretch” the M113 hull approximately three feet, adding another road wheel on each side. Together with increased suspension travel and a 350 HP diesel engine, these modifications give the Australian M113AS4 APC tactical mobility equal to, if not better than, the Bradley fighting vehicle. A similar long wheel base M113 variant was evaluated by the U.S. Army in the interim armored vehicle program, but was passed over in favor of the eight-wheel drive Stryker.

COUNTERINSURGENCY OPERATIONS – VIETNAM

When the United States provided M113 APCs to the Army of the Republic of Vietnam (ARVN) in 1962, American advisors tried to instill into the Vietnamese the official U.S. Army doctrine of employing the M113 only as a “battle taxi.” During a September 1962 attack against guerrilla forces in the Plain of Reeds, the U.S. advisor convinced the ARVN commander to have the infantry dismount and fight on foot. The troops immediately became



www.army.mil/cmh-pg

Soldiers in a M113 armored personnel carrier fire a .50 caliber machine gun during a South Vietnamese training exercise. The barrel of a side-mounted .30 caliber machine gun can be seen on the far side of the vehicle.

bogged down in the knee-deep water, enabling the enemy to inflict an alarming number of casualties.

To the consternation of the higher echelons of the American command, the ARVN refused to continue this practice, correctly reasoning that the troops were far more mobile and better protected when in the APC than when slogging through rice paddies with only a fatigue shirt between their bodies and the enemy’s bullets. In an effort to further improve combat effectiveness and Soldier survivability, the ARVN soon took another step to increase vehicle firepower and crew protection.

As issued, the M113 was armed with a single M2 HB .50 caliber machine gun, mounted out in the open on the front of the commander’s cupola, thereby exposing the TC to enemy fire. As a result of having 14 out of 17 track commanders killed in the 1963 battle of Ap Bac, the Vietnamese fabricated steel armor shields that were attached in front of the “fifty” on the APCs. They also installed an additional .30 caliber Browning machine gun — with armor shield — on each side of the cargo hatch. Thus was born the armored cavalry assault vehicle, or ACAV, a weapon system that was called “the champion VC killer of I Corps” by Colonel R. R. Battreall, an advisor to the South Vietnamese in 1965.

An improved version of the ACAV was fielded by the 11th Armored Cavalry Regiment when it deployed to Vietnam in 1966, and other American mechanized units also had their M113s equipped with armor shields and extra machine guns. According to General Donn Starry, in his 1989 book, *Mounted Combat in*

Vietnam (accessible online at www.army.mil/cmh-pg/books/Vietnam/mounted/index.htm), “more often than not U.S. mechanized infantry fought mounted, employing armored personnel carriers as assault vehicles to close with and destroy the enemy, and that mounted troops generally suffered fewer and less serious casualties than foot Soldiers.”

The ACAV concept proved exceedingly effective on the nonlinear battlefield of Southeast Asia, even though the insurgents were well armed with RPG-2 and RPG-7 rocket launchers, as well as a variety of recoilless rifles. Despite this fact, after United States forces withdrew from South Vietnam, the gunshields and 7.62mm machine guns were removed from U.S. Army ACAVs, restoring the vehicles to prewar configuration. Consequently, when M113s were next employed in combat, during Operation Just Cause, track commanders were once again vulnerable to small arms fire. Fortunately, because the operation was brief and the opposition was ineffective, U.S. casualties were minimal.

URBAN COMBAT – LEBANON

At the same time that the U.S. Army was deleting the ACAV from its inventory, the Israeli Defence Force (IDF) enthusiastically adopted — and to this day continues to use — the concept. What the Americans learned in Vietnam, and then quickly forgot, is that a single machine gun does not deliver sufficient “steel on target” in the assault, nor does it have adequate capability to defend the vehicle against simultaneous attacks by multiple RPG teams. The Israelis, in contrast, still arm most of their M113s with three machine guns, and many of their infantry carriers have gunshields to protect the crews.

Operation Peace for Galilee (www.specialoperations.com/mout/pfg.html) was initiated in 1982, when the IDF sent mechanized forces into neighboring Lebanon in an effort to combat the Palestinian Liberation Organization (PLO). PLO fighters were well supplied with the RPG-7, which proved to be every bit as effective against IDF M113A1s as they had been when used against U.S. Army APCs a dozen years earlier.

To counter the RPG threat, the Israelis

quickly set about developing add-on armor packages to improve survivability of the M113 and its crew. The most prevalent type in use by the IDF is the “Waizata” spaced armor (commonly called “toga”). This is made of thin, lightweight sheets of perforated steel that are attached to a steel framework to create a “skirt” around the front and sides of the vehicle. The standoff provided by the skirt serves to detonate an RPG before it can come into contact with the hull, so that the effects of penetration and fragmentation are significantly reduced.

Because the effectiveness of spaced armor is very dependent upon the type of warhead and angle of impact, under many conditions the shaped charge “jet” is able to penetrate both the skirt and the hull. In an effort to provide a complete remedy to this problem, in the mid-1990s the IDF introduced the “Classical” M113, a variant that was fitted with explosive reactive armor (ERA). This version was first seen operating in Lebanon in 1996, and the ERA reportedly is successful at defeating the ubiquitous RPG. Unfortunately, the added weight of the armor suite not only strained the 212 horsepower engine of the Israeli’s M113A2s, but also caused vehicle speed and handling to suffer, and torsion bars to break. According to waronline.org, these

problems caused the M113 Classical to be removed from service.

Due to the ongoing threat imposed by the RPG-7 and other anti-armor weapons, israeli-weapons.com reports that the IDF is currently planning to equip a portion of its M113 fleet with the light vehicle armor system (LVAS). LVAS is a hybrid modular armor, with each module being constructed of layers of steel, rubber, ceramics, and ERA, to prevent penetrations by RPGs and some antitank guided missiles. If LVAS performs as claimed, it will greatly improve survivability of the M113, especially in urban combat.

URBAN COMBAT – IRAQ

The elegant simplicity of the M113’s box-like structure has enabled this versatile vehicle to be employed in many functions. Although superseded by the M2 Bradley in the role of infantry transporter, the “one-one-three” is still widely used by the U.S. Army as a medical evacuation vehicle and combat engineer vehicle. In the latter role, the M113 has seen action during Operation Iraqi Freedom much like that for which it was originally used four decades earlier.

When more than 100 Iraqi soldiers staged a surprise attack on Bravo Company, 11th Engineer Battalion near the Baghdad



Captain Bill Thompson/ First Lieutenant Jesse Delgado

Soldiers in an M113 APC from the 2nd Battalion, 7th Infantry Regiment, 3rd Infantry Division (Mechanized) operate outside Iraq’s Saddam International Airport in April 2003.

airport in early April 2003, Sergeant First Class Paul R. Smith climbed into the open hatch of an M113 and opened fire with the .50 caliber machine gun. After expending nearly 400 rounds of ammunition in an hour and a half of fighting, SFC Smith was mortally wounded. This is precisely the type of situation that caused gunshields to be created 40 years ago, but — like the overwhelming majority of M113s in Iraq — SFC Smith's APC was not equipped with a shield. The widespread use of gunshields on U.S. Army M113 variants in Vietnam saved the lives of many crewmen in that conflict, and might also have prevented the loss of this courageous warrior.

For those who wish to use them, the cupola armor kits are still in the system (frontal shield only has NSN 2541-01-394-7280; frontal shield with left and right enclosures has NSN 2541-01-497-9999), and can be ordered through normal channels. It is uncertain if the cargo hatch shields and elbow mounts for 7.62mm machine guns are still in the inventory since they have not been seen on U.S. Army M113s for many years.

Also missing from M113s is bolt-on armor that would protect against the effects of shoulder-fired anti-armor weapons like the RPG-7, which has been encountered in massive numbers in Operation Iraqi Freedom. Even though the M113A3 — production of which began in 1987 — was manufactured with provision for attachment of additional armor, no type of passive or reactive armor has ever been acquired.

However, a partial solution to the RPG problem was found in the form of a field expedient modification to increase stowage space by attaching cargo racks to the sides of the vehicle. A side effect of these steel-framed racks, together with the supplies and gear stowed in them, is that they acted as improvised spaced armor and detonated RPGs with some standoff distance from the hull.

One combat engineer reported that, "When RPGs hit [a cargo rack], they would hit a rucksack or a hard equipment case and go off, and fail to do more than gouge a hole in the vehicle's side." However, Task Force 1-64 Armor's after action review (accessible at www.strategypage.com/dls/articles/20030912.asp) noted that external stores helped, but did not always prevent penetrations by RPG and recoilless rifle rounds.

A more effective spaced armor was designed at Anniston Army Depot in May 2004, creating a "kit" that enables the side skirts and ramp armor taken from older, out-of-service M2A0 Bradleys to be bolted onto M113A3s. The Bradley spaced laminate armor, together with additional ballistic plates on the vehicle front, would give 360-degree protection against 14.5mm projectiles at short range, as well as increasing the capability to survive RPG hits and



Courtesy photo

Using the modified Bradley A0 armor would be one way to significantly upgrade the protection level of the M113A3 at a low cost.

roadside bombs. Use of the modified Bradley A0 armor would be an elegant way to significantly upgrade the protection level of the M113A3, at extremely low cost.

An M113A3 with additional, well-designed armor bolted onto the sides and front would be able to absorb multiple RPG hits without the concomitant risk of fire. Spaced armor is an inexpensive upgrade, sufficiently lightweight so as to put little strain on engine, transmission, and suspension components, but clearly not the most effective option.

Reactive armor would be far superior to spaced armor, as would passive armor like that developed for the M8 armored gun system. The M8's passive armor modules are already type-classified, and could be readily adapted for installation on the M113.

As was learned four decades ago, providing a gunshield for the M2 .50 caliber machine gun would substantially improve TC survivability. The complete kit offers good protection from small arms projectiles, but requires that the gunner expose much of his upper body when reloading the "fifty." Because of this factor, using the frontal shield by itself might be a better alternative, one that offers protection over the frontal arc, while retaining the flexibility and ease of operation of an unshielded weapon.

Installing and manning a 7.62mm machine gun at each side of the cargo hatch would greatly improve situational awareness by having continuous observation of three quadrants, and allow instant return fire against multiple RPG teams. This is impossible on vehicles armed with only a single weapon, and has resulted in the loss of a number of vehicles in Iraq, including M113s, HMMWVs, Bradleys, and at least one Stryker. Two extra machine guns, and the personnel to man them, would provide an "active defense" against the RPG threat, substantially improving survivability and combat effectiveness.

The M113 has served the U.S. Army well in combat and peacekeeping operations for close to half a century, and is destined to remain in service for many years to come. While it has been eclipsed by the M2 Bradley for high intensity conflicts such as were once considered possible with the Soviet Union, the M113 still has much potential for use as an infantry vehicle for counterinsurgency operations, particularly in urban terrain. The hope is that this article will provide some insight on how that potential has been utilized in the past, so that it might be further built upon in the present and future.

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A LOOK BACK :

Stability Operations in Santo Domingo

MAJOR WILLIAM E. KLEIN

Editor's Note: *This article was originally published in the May-June 1966 issue of Infantry and offers timely lessons for today's leaders.*

On 30 April 1965, the first airborne units of the 82d Airborne Division were deployed to the strife-torn Dominican Republic. Marines of the Atlantic Fleet Ready Force had already landed on 28 April with the mission of protecting American lives and property and evacuating Americans and other foreign nationals.

The outbreak was primarily confined to the city of Santo Domingo, where the rebels, influenced by a strong Communist element, had issued guns and ammunition to civilians. This resulted in indiscriminate shooting which felled innocent people throughout the capital city. Most of the Americans and foreign nationals fled to the Ambassador Hotel, located on the western edge of the city. It was this hotel which was the original objective of the Marines who poured ashore on Red Beach, near Jaina Port, approximately 20 kilometers west of the city. Shortly after the Marines had moved to the hotel, early elements (two airborne infantry battalions) of the 82d Airborne Division landed at San Isidro airfield, some 12 kilometers east of the city. The first mission of the airborne troopers, after securing the airhead, was to seize the Durate Bridge across the Ozama River to insure access to the city. Once these airborne units and the Marines had accomplished their original limited missions, the situation developed a macabre look from a

military standpoint. The U.S. forces were split, with the Marines located on the west of the city, and the 82d Airborne building up on the east.

Lieutenant General Bruce Palmer Jr., sent in to assume command of the U.S. forces in the Dominican Republic, recognized the urgency of solving this dilemma and recommended the rapid establishment of a line of communications between the two units. This LOC would allow a steady flow of logistical support between the two forces. It also would have had the effect of sealing the majority of the rebels in one square mile of the city bounded by the U.S. forces to the north and west, the Ozama River to the east, and the Caribbean Sea to the south (see map).

The plan was approved by higher headquarters on 2 May. General Palmer issued the order and, in a surprise midnight move, the 82d Airborne Division, commanded by Major General Robert H.

York, stretched five battalions through the city to link up with the 4th Marine Expeditionary Brigade. Only a few minor casualties were sustained in the execution of this daring and highly successful plan which caught the rebels completely off guard.

From the first day of the establishment of the LOC, Santo Domingo began its struggle to return to normalcy under the watchful eyes of the U.S. forces.

During the early days of May, firing was commonplace from the rebel zone, from both single-shot and automatic weapons. The troopers and Marines began to improve their defensive positions on a continuing basis and controlled the flow of traffic in and out of the rebel zone by sealing off all roads and alleyways, except for seven check points. There was no restriction as to entering or leaving the zone except that weapons and ammunition could not be carried in or out. The rebels tried many tricks at first, such as attempting to run the checkpoints in ambulances without being searched, and later they attempted to hide the weapons underneath wounded they were evacuating. Gradually, their undercover methods were discovered and the arms exodus was reduced substantially.

One of the most important missions during these early days was civil affairs. It was crucial to get the starving populace fed, the streets cleaned, water and electrical services restored, medical aid supplied to the needy, and to find adequate solutions to myriad other problems. It was one thing to accomplish these tasks in a peaceful environment and quite





Sniper fire in downtown Santo Domingo keeps nerves on edge.

another to work at them under the constant harassment of sniper fire.

The situation improved gradually throughout the month of May, and in June the President announced the withdrawal of all the Marines. The 82d Airborne Division then occupied the entire perimeter of the LOC and held it until the Latin America contingent began to assume some of the security and peacekeeping missions.

The establishment of the Inter-American Peace Force in late May is a study in itself, and it is not my intention to discuss it in this article. It should be noted, however, that the IAPF was formed with military units from six different countries of the Organization of American States, representing an important first for that organization of our hemisphere.

The 15th of June was essentially a turning point and began as any other day in the corridor: food issue, manning checkpoints, and even a command management maintenance inspection. However, a group of undisciplined rebels attacked a portion of the U.S. line during the morning and before the day had ended, the 82d Airborne Division had seized 30 additional city blocks. This show of force undoubtedly had great influence on the remainder of the negotiations which came to a successful conclusion on 3 September 1965.

The lesson of this action for the infantryman, after understanding the overall operation and missions, is a new look at city fighting. Not since World War II had the U.S. Army been as involved in combat in cities and never before had such combat been so restrictive. Because of these imposed restrictions, the largest caliber weapon used was the 106mm recoilless rifle (no mortar or artillery support could be employed) and a fire discipline was required that tested the individual Soldier as he has rarely been tried in our Army's history. These weapons restrictions, of course, eliminated coping with rubble and other obstacles associated with fighting in a built-up area, but presented the Soldier with problems of much greater magnitude.

The sniper was the number one enemy. Hidden in the shadows of buildings or concealed positions, often firing out of a window from well within a room with automatic weapons, pistols, and other small arms, his fire took a deadly toll of 24 airborne troopers

and Marines and wounded 154 U.S. servicemen.

Tactical principles of course, were not changed, but this type combat requires a rapid mental adjustment from "high ground and critical terrain" to key buildings and objectives. Boundaries were of necessity more implicit because of "clearing" missions. In establishing an LOC through a city, the soldier moved rapidly from cover to cover. Wooden buildings gave no protection; concrete block was only a small improvement. Sandbags and solid concrete buildings were the best protection. Once in position, sandbags were used for rooftop and street positions (troops should be cautioned not to fill them with any material other than dirt or sand). In one instance in early May, a trooper was wounded by a small caliber projectile striking an improperly filled sandbag and ricocheting into his position.

When attacking, the Soldiers avoided the streets like the plague. The middle-of-the-block approach was the answer with the troops advancing over and through buildings. Engineers were used to blow holes through walls of the buildings, or if the Engineers were unavailable, holes were made with a 3.5" rocket launcher, a LAW, or a 106mm recoilless rifle.

Clearing was best from the roof down, but many of the rooftops were open and vulnerable to fire from rebel-held buildings. So, in practice, many of the buildings were cleared from the bottom up. The majority of the casualties suffered by the 82d Airborne Division on the 15 June attack were on exposed rooftops. Once the buildings were secured, rooftop positions were prepared with sandbags under cover of darkness.

One big lesson learned early, fortunately, was that you never attempt to take or clear buildings without adequate cover and fire power. A machine gunner or rifleman in a covering position can rapidly pick up an enemy firing at a maneuver element if he has a good vantage point. This was a much more difficult task for the maneuver element.

Once the corridor was established, a defense was initiated both south and north of the LOC as indicated by the boundaries shown on the map. The defense in this situation was keyed to a line of rooftop and street positions on the perimeters with no depth. One battalion-size unit made the serious mistake of attempting to defend in depth. This resulted in having its own troops shooting at each other. To accomplish a depth aspect, reaction forces were designated at company, battalion, and brigade level. These forces were ready to be used if there was a break in the lines and were also employed for riot control or other emergencies within the corridor.

In the defensive posture, U.S. positions sustained many hundreds of firing attacks from rebel forces. It is a tribute to these well-disciplined Soldiers and their leaders that these attacks were met with such great courage and restraint. In consonance with this idea, never has "keeping the troops informed" been so important.

On 2 May, we had an operational mission oriented toward the Communist-infiltrated rebels. Later in May our orders were to act as a neutral peacekeeping force. Originally, we would "return fire when fired upon." Later, it changed to "take cover and not fire unless the position was in danger of being overrun or American lives were in extreme danger." One can readily see the importance

of every man's knowing the score.

Aerial photographs from Army and Air Force sources were of immeasurable value. Not only were they an excellent source of intelligence, but they were also an aid in pinpointing our own positions. In several cases the U.S. Forces were accused of moving their lines forward into rebel-held territory when in fact there was no basis whatever for the charge. In order to refute these charges, aerial photographs were used to plot our lines with outposts, and positions actually shown on the exact buildings and streets. This proved to be a very effective method. Later during the dismantling of the positions in September, "before and after" aerial photographs were useful in showing the progress the rebels, were making in demilitarizing their area, i.e., removal of the sandbags, tank traps, and barbed wire.

During the early days in May, command posts and 106mm recoil less rifles were primary rebel targets. Using a terrorist-type attack, rebels would sneak across roof tops at night within the zone and lob grenades at the CPs and recoilless rifles. In order to combat this, tight security measures were instituted by units and in many cases unoccupied rooftops within range of these locations were booby-trapped with flares.

The M79 grenade launcher proved its worth a hundredfold. It was devastating when fired through an open window. If the window were paned or shuttered, it was best to fire two rounds in rapid succession. The first would destroy the window dressing, losing most of its effect outside the building, while the second would explode inside the room delivering its full lethal effect.

While discussing weaponry, the countermortar radar section cannot be overlooked. In late August, during the critical days preceding the signing of the National Act of Reconciliation, mortar rounds were fired into the rebel-held area of the city. The IAPF, and in particular, the U.S. forces were accused of the firing. However, our alert countermortar radar section picked up the firing locations in the National Reconstruction Government (GNR) controlled northern section of the city. When confronted with the precise plots furnished by the radar section, the GNR Army Chief admitted the firings and promised to stop these violations. This

valuable piece of equipment literally "saved the day" and kept the negotiations from becoming disrupted.

Airmobility played a major role in our operations. The OH13 helicopters flew reconnaissance missions from dawn to dusk on a daily basis. The UH1B and UH1D helicopters were the reliable workhorses used for troop lift, evacuation of wounded, reconnaissance, and many other missions limited only by the initiative of the troops and the pilots. While under rebel fire, a UH1B was used to place a 106mm recoilless rifle on the roof of an eight-story flour mill on the east bank of the Ozama River.

From this vantage point, fire could be directed at most of the rebel-held city. The Huey was also used to deliver sandbags to the roof tops of several buildings that were inaccessible except by difficult routes. The mere threat of the use of helicopters in an airmobile operation caused the rebels to arrange their defenses in a 360-degree perimeter, and should the order have come for a solution by force, there were adequate plans to make that threat a reality.

As some helpful hints, the following techniques from DomRep might be emphasized for small unit tactics in "City Fighting:"

1. Do not defend in depth, but establish a modified perimeter defense with reaction forces.

2. Choose key buildings for objectives the same way you would choose key terrain. Observation and fields of fire are critical.

3. Avoid streets when possible; they are killing zones for the enemy's automatic weapons.

4. Use adequate cover such as sandbags. Remember that wooden buildings and concrete block will not stop lead.

5. When clearing or attacking, insure that you are being covered. Never attempt to rescue an exposed wounded man without first placing fire on suspected enemy positions. Cover your medics.

6. Beware of doors, windows, and holes in buildings made by the enemy. Make your own entrances with Engineer assistance or your own infantry weapons.

7. Be aggressive, but do not rush into a trap. The enemy often employs one automatic weapon covered by another.

8. Plan your method of clearing a building, if possible, from the roof down, but do not



An 82d Airborne Division Soldier patrols the streets of Santo Domingo.

expose yourself on an open rooftop.

9. Be certain you have adequate security for command posts and 106mm recoilless rifles. Choose the best possible locations for these positions.

10. When clearing a suspected enemy position, never use a man when you can use a weapon.

11. Remember that there is no substitute for an aggressive, well-disciplined Soldier who knows what you want him to do.

There are many lessons and techniques which were learned during the Dominican crisis. The few discussed in this article are intended only to provoke thought on the old and often neglected art of "City Fighting."

Although a major at the time this article was written, **William E. Klein** progressed to the rank of major general before retiring in 1987. He graduated from West Point in 1954 and had many diverse assignments during his 33 years of military service to include serving at division, Department of the Army, Joint Chiefs of Staff and Unified Command levels.

MG Klein commanded a mechanized Infantry battalion during Vietnam and is one of the most highly decorated members of his West Point class. His decorations include the Defense Distinguished Service Medal, Distinguished Service Medal, four Silver Stars, the Legion of Merit, four Bronze Stars with V device, and the Combat Infantryman Badge.

THE SUDANESE ARMY: A HISTORICAL ANALYSIS AND DISCUSSION ON RELIGIOUS POLITICIZATION

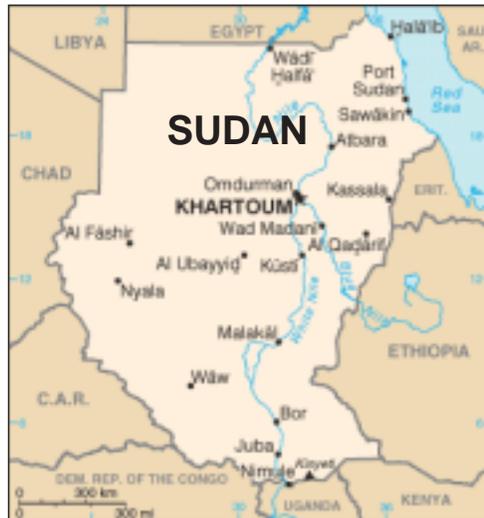
LIEUTENANT COMMANDER YOUSSEF ABOUL-ENEIN

Precious little has been written on the Sudanese Army, yet Sudan remains an area of interest in the war on terrorism. Africa's largest nation has sponsored training camps financed by Bin Laden, and its leadership had warmed up to the Al-Qaeda leader, making Sudan his base of operations from 1991-1995. Sudan still remains on the U.S. list of states that sponsor terrorism, and the Sudanese regime is a military dictatorship on the brink of lapsing into Islamic radicalism and is home to perhaps the most eloquent Islamic fundamentalist thinker today — the Sorbonne-educated Hassan Al-Turabi leader of the National Islamic Front (NIF). Among the few Arabic books available on the Sudanese Army is a single volume written in 1990 by Muhammad Muhammad Ahmed Karrar. His book entitled *Al-Jaysh Al-Sudani Wa Al-Inqaz*, which is translated as *The Sudanese Army and National Salvation* (Khartoum, Sudan: Dar Al-Balad Publisher, 1990) is an important volume for Middle East Foreign Area Officers and those wanting to understand how the Sudanese Army, which effectively rules the nation, can easily fall victim to the aspirations of Al-Qaeda. The book also shows the gradual religious fervor that crept up on Sudanese politics and infected the Army leading to generals searching for an Islamist cause they found in engaging in a civil war against Christians and non-Muslims in southern Sudan and allying themselves with the National Islamic Front in 1989.

Muhammad Karrar is a Sudanese intellectual who has published over a dozen books on Sudanese politics, nationalist movements, revolutions, and communism. Although an agricultural planner by education, his books are known to Arabs, Egyptians, and Sudanese readers. It is important to realize the author is pro-Islamist and wrote his book as a tribute to General Omar Al-Bashir and his Army. Nevertheless, American military planners ought to take time to analyze his works, which is the best treatise on the Sudanese army, its history, and political machinations to date.

Early History of Sudan's Army (1899-1925)

Karrar, begins his book with the destruction of Mahdist forces in 1899 and the establishment of an Anglo-Egyptian condominium



over Sudan. The highest-ranking British officer in Egypt known as the Sirdar also served as Governor General of the Sudan. British Sirdars of Egypt included the likes of Lord Kitchener and General Edmund Allenby. In 1922, after nationalist riots stimulated by Egyptian leader Saad Zaghlul, Egypt gained quasi-independence from Britain, and Ahmed Fuad was declared King Fuad I. The Egyptians wanted more oversight in the Sudan and created specialized units of Sudanese auxiliaries within the Egyptian Army called Al-Awtirah. This became the nucleus of the modern Sudanese Army.

In 1922, Sudanese First Lieutenant Ali Abdul-Latif refused to salute a superior British officer, arguing this violated the sovereignty of Sudan and the oath he took to serve under King Fuad of Egypt. This act of insubordination led him to be cashiered and imprisoned. In 1924, he became the focal point of mass riots and a revolt known as the White Flag Revolt. The Sudanese military school rioted and urban battles occurred in Khartoum and Omdurman. First Lieutenant Abdul-Fadeel Al-Maz acquired weapons at an armory and led an armed insurrection, starting at the military training academy, against British authority and Vice-Sirdar General Huddleston. British patience on pacifying the Sudan and the murder of Governor General and Sirdar Lee Stack in November in broad daylight in Cairo, Egypt, led to London imposing harsh measures on Egypt and using the assassination as a pretext to assert imperial authority over the Sudan. Among the reparations, Egypt reluctantly submitted to compensation of 500,000 pounds and the evacuation of Egyptian forces in Sudan. This action by England only made matters worse and eroded the authority of King Fuad I of Egypt, leading Egypt towards its own path of nationalism and anti-British sentiment.

Finding Sudan to be difficult to govern without Egyptian troops and their Sudanese auxiliaries, the British established a stand-alone Sudanese army on January 17, 1925. The Sudanese army was made up primarily of Egyptian-trained Awtirah and was charged with internal security. Five regional commands were created (Eastern, Central, Western, Northern, and Southern). After the 1924 Revolt in the Sudan, the British closed the military

school and reduced the ranks of the Sudanese army from 13,000 to 5,000 troops; Sudan's military training school would not reopen until 1935.

World War II (1935-1945)

To the Sudanese, World War II began not in Poland but with the arrival of Mussolini's forces to Ethiopia in 1935. British planners in Cairo were obsessed with Axis encroachment on the Suez Canal and its links to India and possessions in Asia and Africa. It was decided to reopen Sudan's military school and even include an officer's academy. The British selected Sudan's officers from (Chinese) Gordon's High School, an elite preparatory school that produced Sudan's future officer corps. In 1938, Sudan graduated its first group of officers and between that date and 1944, an average of 50 officers a year were trained. About 25,000 Sudanese enlisted troops would participate in World War II.

Sudanese troops played an important role augmenting allied forces engaging Italians in Ethiopia and in 1943 were deployed to Libya where the Sudanese joined Allied forces in pushing Italians and Rommel's Afrika Korps out of North Africa. This demonstrates a pride to be part of fighting fascists, and this history can be used today as part of an effort to bring Sudan's military leaders to play a constructive role in fighting terrorism.

Evolution of Sudan's Armed Forces (1947-1985)

In 1947, the Sudanese military schools were closed, and the number of Sudanese troops was reduced to 7,570. In 1948, the first Arab-Israeli War broke out. Sudanese Colonel Hamid Saleh Al-Malik selected 250 combat-seasoned soldiers who had seen action in World War II. They arrived in Cairo to participate in a parade and were then dispatched to various units of the Egyptian army. This was a grave mistake, for the Sudanese had fought together in World War II and this broke unit cohesion. The decision was indicative of Egyptian military planners of the period. Forty-three Sudanese were killed in action in the 1948 Arab-Israeli War. On July 26, 1952, events in Egypt



were followed closely in the Arab world, discontented officers from the Palestine War led by Nasser and his Free Officers overthrew King Farouk and established a Republic. In 1953, the British and the new Egyptian government reached an agreement that Sudan was to be put on the path of independence. General Ahmed Mohammed became Sudan's first army chief in August 1954. This is significant for the Sudanese, for it was the first time it had an independent army that was not governed by Britain or Egypt.

Egyptian leader Gamal Abdul-Nasser sent Salah Salim, a member of his Free Officers, to Sudan between 1952-1954 to aid the Sudanese in their quest for independence. Sudanese senior officers met and agreed to send a vague message to the timid parliament in Khartoum that if legislatures did not vote positively on a referendum for independence, then the army would take control of the nation by force and declare independence. The referendum was passed unanimously in December 1955, and Sudan became independent on New Year's Day 1956. Sudan's politics were shaped by Nasser's fiery speeches on Arab nationalism, the Algerian War of Independence against the French, and the Suez Crisis. Karrar noted that the army became shaped by leftist politics.

In 1958, Egypt made a gift of four aircraft, which established the Sudanese air force. From 1956-1960, Sudan military assistance came primarily from Egypt. Cairo provided armored vehicles to equip Sudan's first mobile infantry division and by 1960, the Sudanese army possessed the Saladin Armored Division, Commando Regiment, and three artillery battalions. The air force was also provided planes from Britain. Germany gave Sudan its first fast-attack watercraft in 1962, which was the basis for Sudan's Navy. The Germans also established Sudan's first military manufacturing

capability, giving them the ability to manufacture ammunition and the G3 rifle, according to Karrar's book. During this time, Sudan's forces were concentrated in the North and Commando units fought a bush and jungle war in Equatoria in the South. The Arab Muslims of the North who strove for independence were determined to Arabize the Christian south, and a civil war that continues to this day ensued.

After the 1967 Six-Day War, Sudan and Egypt came under firm Soviet influence and the Sudanese People's Armed Forces received a large infusion of weapons from Moscow. It included T-54 tanks and MiG-17 and 19 fighter-bombers. The years 1967-1968 were pivotal to Sudan's armed forces' development. Aside from Soviet weapons systems, the Sudanese achieved the following:

- Sudanese artillery began integrating 105, 120, and 122-millimeter cannons in its infantry formations;
- A combat engineering section was established;
- Specialized combat units that dealt with maintenance were formed;
- Sudan integrated surface-to-air missiles and anti-air guns into radar command and control net; and
- An armed forces general staff was established.

The heyday of Soviet equipment and military assistance came to an end in 1971 and Sudan's generals turned to North Korea, China, and Egypt for assistance. After the April 1985 revolt that ushered in a more radical government, weapons and military aid came exclusively from Arab states with the primary donors being Iraq, Syria, and Egypt.

Problems of Constant Military Intervention in Sudanese Politics

Karrar's treatment of Sudan's 1956 independent government is unclear, except to say that the threats from the Sudanese army to unilaterally declare independence if the Sudanese legislatures did not vote on a referendum to grant the nation self-rule did not bode well for the new nation. The author's main focus is the 1989 (National Salvation) revolt that removed the civilian government of Sadiq Al-Mahdi and his

Umma Party, bringing in General Omar Hassan Al-Bashir and his Islamic fundamentalist ideologue Sheikh Hassan Al-Turabi, leader of the National Islamic Front (NIF), to power.

In 1956, Sudan established its first experiment with democratic governance. It lasted less than 24 months before Sudan's second prime minister tired of political division, labor strikes, and a mutiny of a Southern Sudanese regiment led him to invite General Ibrahim Aboud to take power and impose martial order. Once invited, the Sudanese Army never really left the political scene; in 1964, however, the military was forced out by a popular uprising. Khatim-al-Khalifa became Sudan's prime minister but the inability of civilian leaders to deal with economic problems, famine, and widespread poverty led to a fractionalization of Sudanese society that had its most direct impact on the Sudanese armed forces. The army became divided according to parties (Maoist, Marxist, Communist, Arab Nationalist, Baathist, and Islamist) between 1964 and 1967. During this time, the Sudanese military academy revised its admission procedures and began accepting cadets based on merit, not tribe and family connections.

The factionalism of Sudan's army imploded after the 1967 Six-Day War. Searching for answers to the failure of Arab forces, Sudanese began to tilt away from socialism and Arab nationalism towards Islamic fundamentalism. In May 1969, amidst political chaos, the prime minister dissolved the National Assembly and called for new elections. Public discontent was so great that General Jafar Al-Numeiri seized power and kept it in military hands for 13 years. He dissolved political opposition and thwarted several coup attempts; Numeiri's success in remaining in power was his ability to consolidate Arab nationalist and Islamist groups to battle socialists, Marxists, and communists.

Numeiri's effect on the Sudanese army was to religiously radicalize it to answer the inadequacy of Arab forces in its dispute with Israel. In 1969, the Sudanese military academy offered a degree in Islamic Studies and Dawa (Evangelism). This strict and intolerant brand of Islam charged the army's morale and gave its conflict in the South against non-Muslim Sudanese a new impetus. Between 1973 to the present, Sudanese military officers became indoctrinated in Islamic fundamentalism and became part of what they called a global Islamic Sahwa (Trend).

The Iranian Revolution of 1979 confirmed Sudanese beliefs and many Arab nations began to combat the trend in Islamic radicalism. Sudanese Sufi Muslims became targets of attack, yet Numeiri did nothing to stem the tide that would soon remove him from power in 1985 and usher an Islamic radicalized government into Sudan in 1989. In 1983, he imposed Islamic law on Sudan, which stiffened resistance in southern Sudan. Persian Gulf funds flowed into the country, hard currency Numeiri desperately needed. The armed forces became awash with radical Islamic commentaries like Ibn Katheer, Sayid Qutb's literalist interpretation of the Quran entitled *Fee Zilal Al-Quran* (In the Shade of the Quran), and a treatise on early Islamic war fighting skills authored by Major General Mahmoud Khalab of the Sudanese army. The current senior

leadership of the armed forces grew up in Numeiri's Islamic Sahwa. It was a only a matter of time before cleric Hassan Al-Turabi was able to influence events and be a behind-the-scenes power broker for Sudan's generals who seized power in 1989 and allowed many Jihadist groups to find safe haven in the country.

In 1985, Numeiri was overthrown and power was handed over to civilian control under Sadiq Al-Mahdi. His government would be charged with having its own militia in the Umma Party. He appointed his son to a top military position, and his efforts to curb the army led to losses against non-Muslim insurgents in southern Sudan. Discontent within the ranks bubbled to the surface with an attempted coup that failed in December 1988, and Al-Mahdi was saved by his loyalist Defense Minister Field Marshal Abdul-Majid Khaleel. However, the prime minister resigned in February 1989, leading to 250 senior Sudanese military officers convening a meeting to discuss the political situation. Food riots worsened, and in June 1989, General Omar Al-Basheer seized power and formed a 15-person Revolutionary Command Council (RCC) for National Salvation. The coup was bloodless and invoked Article 15 of Sudan's 1985 Constitution that asserted the military right to defend the Sudanese people and its territorial integrity. Although wanting to resolve the conflict in the South, it became impossible with General Al-Basheer's Islamic puritanical views and his closeness to the National Islamic Front and its leader cleric Hassan Al-Turabi.

Talks are currently ongoing in Kenya, and Egypt is playing a constructive role in bringing the parties together to resolve this war that is approaching its fifth decade. Between 1996 and 2000, the cleric Al-Turabi and General Bashir battled one another, with Turabi seizing control in 1996 and placing religious fundamentalist officers in key posts. After popular elections though, Bashir returned to power and had Turabi arrested. Bashir refused to consider a separation of religion and state in a nation of one million square miles, the largest in Africa with a population of 600 ethnic groups. The demography speaks for the need for Sudan to secularize its political institutions. The Sudanese army can take pride in its accomplishments in World War II, yet years of radicalization will require many more years to professionalize the armed forces and reintroduce a new generation to proper civil-military affairs. Although pro-military and pro-religion in state affairs, Karrar's book offers a unique glimpse into the devolving of Sudan's military.

Lieutenant Commander Youssef Aboul-Enein is a Middle East Country Director at the Office of the Secretary of Defense. For the past several years he has worked with *Military Review* to highlight works of military interest by Arab authors to the pages of the journal. The translation and analysis from Arabic represents his understanding of the material.

LCDR Aboul-Enein wishes to thank Georgetown University and the Pentagon librarians for making this work available to him and LTC Steven Soucek, U.S. Army, whose discussions on Sudan and 1994 Master's Thesis, "Sudan: Civil War, Islam and Terrorism," (University of Virginia Woodrow Wilson School of Government and Foreign Affairs) gave his reading of Karrar's book an added perspective.



STRYKER CORNER

AN INTRODUCTION TO THE SBCT

RON KUYKENDALL

This is the initial article for the new section titled "TRADOC System Manager - Stryker and Bradley (TSM-S/B) Corner." TSM S/B represents the user during development of Stryker and Bradley vehicles and their associated support equipment. Colonel Don Sando, the System Manager, heads up an office of 28 personnel located at Fort Benning and 13 personnel located in SBCT Forward Cells and TSM offices in key areas throughout the Army. This initial article provides an overview of the Stryker Brigade Combat Teams' vehicles and organization. Future articles will focus on specific vehicles and their developmental/upgrades progress.

The Stryker Brigade Combat Team (SBCT) is a full spectrum, early entry combat force that is optimized for employment in small-scale contingencies in complex and urban terrain. It is designed to confront low-end and mid-range threats that may employ both conventional and asymmetric capabilities. The SBCT's major fighting components consist of three motorized, combined arms, infantry battalions that are supported by additional organic combat, combat support, and combat service support elements. The SBCT is a true system of systems that has the infantry company mission as its focus with the infantry Soldier at its center. The execution of these missions is supported with a common vehicle platform, the Stryker.

The Stryker vehicles in the SBCT consist of two variants, the Infantry Carrier Vehicle (ICV) and the Mobile Gun System (MGS). The ICV also has eight configurations based on its design. These configurations are the Mortar Carrier Vehicle (MCV), the Anti-Tank Guided Missile (ATGM), the



The Stryker Infantry Carrier Vehicle

Reconnaissance Vehicle (RV), the Engineer Squad Vehicle (ESV), the Fire Support Vehicle (FSV), the NBC Reconnaissance Vehicle (NBC-RV), the Medical Evacuation Vehicle (MEV), and the Command Vehicle (CV).

The infantry squad is at the point of SBCT operations. The squad's versatility and proficiency are critical to the success of missions that range from infantry assaults to stability and support. The squad's success is supported by both vehicle and hand-carried weapons and equipment. These include M4 rifles with various appended components, M240 machine guns, Javelin missiles, night vision optics and pointer/designators, and all the weapons organic to or supporting the SBCT. This provides the infantry squads with an enormous amount of firepower, from rifles to Air Force delivered ordnance.

The Infantry Carrier Vehicle is the base vehicle in the SBCT. It provides the

infantry squad highly mobile, protected transport to decisive locations. The ICV also provides direct fire support for the squad. The ICV carries a nine-man squad with a two-man crew. It is equipped with a Remote Weapon System (RWS). The RWS allows the vehicle commander to engage targets from inside the protection of the vehicle. The RWS mounts the M2 .50 cal machine gun or the MK19 grenade launcher and allows target engagements during the day or night using FLIR or day camera technologies. C4 equipment includes FBCB2 (Force XXI Battle Command Brigade and Below [ANYUK-128]), SINCGARS (single-channel ground and airborne radio subsystem [ANVRC-91F]), EPLRS (enhanced position-locating reporting system [ANV/SQ-2Q(V)1]), PLGR/DAGR (precise lightweight GPS receiver/defense advanced GPS receiver), and FHMUX (frequency hopping multiplexor). As with all Stryker vehicles,



Reactive Armor Tiles

the ICV has Modular Expandable Armor System (MEXAS) armor protection. Add-on rocket-propelled grenade (RPG) reactive tiles may also be mounted for additional protection. Slat armor also provides another level of RPG protection.

The Mobile Gun System provides rapid and lethal direct fires to support infantry operations. A key supporting task of the MGS is to “punch” holes through walls that allow infantry squads rapid access inside structures. The MGS has a low profile turret with an M60A1 105 mm gun that includes autoloading capability. It also has an M240C machine gun as a secondary weapon. The MGS is manned by a three-man crew.

The Mortar Carrier Vehicle provides the immediate, responsive mortar fire support that is critical to the Infantry achieving its rapid, decisive results. The MCV can provide accurate and lethal high angle fires that support operations in complex terrain and urban environments. The accuracy of these fires is enhanced through the use of the SBCT’s improved situational awareness and the Mortar Fire Control System. Presently, there are two models of the MCV. The MCV-A tows a 120mm mortar and crews fire this system in a dismounted

Mortar Carrier Vehicle - A



SLAT Armor

mode. The MCV-B improves upon the “A” by providing the capability to fire the 120mm mortar onboard the vehicle. The MCV carries a four-man section. The MCV is also equipped with a 81mm mortar at the battalion level and a 60mm at the company level. The MCV-A is equipped with the RWS mounting an M2 or MK19 weapon. The MCV-B has a pintle-mounted M240 series machine gun.

The Anti-Tank Guided Missile variant is the primary tank killer, capable of defeating any armored threat at extended ranges. The ATGM carries a four-man AT team with TOW-II missiles. It is also equipped with a pintle-mounted M240 machine gun.

The Reconnaissance Vehicle enables the reconnaissance, surveillance, and target acquisition (RSTA) squadron and battalion scouts to perform reconnaissance and surveillance operations. The RV carries a five-man dismount section with a two-man crew. It has a power-assisted cupola mounted with an M2 or MK19 weapon. The cupola also mounts the Long Range Scout Surveillance System (LRAS3).

The Engineer Squad Vehicle provides an engineer squad highly mobile, protected transport. It allows the engineer company

Mortar Carrier Vehicle - B



Mobile Gun System

to provide mobility and limited counter mobility support to the SBCT. The ESV carries a nine-man engineer squad with a two-man crew. It can mount a mine roller, mine plow and/or mine detection systems.

The vehicle weapon system on the Fire Support Vehicle is the RWS with the M2, which provides automation enhanced surveillance, target acquisition, target identification/designation and communications that support the SBCT with “first round” fire for effect capability. It also provides the company fire support team (FIST) with the capability to automate command and control functions required to perform fire support planning, directing, controlling, cross-functional coordination and execution. The FSV carries a four-man FIST and integrates the M707 Knight Mission Equipment Package. The vehicle has a pintle-mounted M240 machine gun.

The NBC Reconnaissance Vehicle provides situational awareness and detection to warn via cooperative NBC networks. Its enhanced capability to see and avoid contamination increases combat power by reducing force degradation due to NBC conditions. The NBC-RV carries a four-man NBC team and contains an extensive NBC suite and meteorological

Anti-Tank Guided Missile





Reconnaissance Vehicle

system. It is also equipped with an over-pressure system. The vehicle has an RWS with an M2 or MK19.

The Medical Evacuation Vehicle is the primary ambulance platform. It is dedicated to casualty evacuation and used to support the organic medic who rides with and accompanies the infantry Soldier during infantry operations. These evacuations include emergency care en route, enhanced by a medic in a protected environment, with adequate lighting and medical equipment. The MEV carries an ambulance team of three. It also carries four litter or six ambulatory patients.

The Command Vehicle provides an operational platform for command elements within the unit. It provides commanders the capability to see and direct the battle continuously while maintaining a common relevant operations picture (CROP) of all friendly forces within their respective area of operation. The CV carries a three-man command section with a two-man crew. Its C4ISR package is tailored to the specific echelon of command using the vehicle. It has the ability to “plug-in” to aircraft power and antenna systems in order to plan missions en route, aboard the aircraft. The vehicle’s weapon system includes the RWS

NBC Reconnaissance Vehicle



Engineer Squad Vehicle

mounted with an M2 or Mk19.

The SBCT also contains a RSTA squadron. This unique organization is the primary source of combat information. This squadron seeks to see, know, and understand the operational environment in detail, with the objective of creating an umbrella of understanding across the AO. This squadron can simultaneously reconnoiter nine routes or conduct surveillance of 18 designated areas on a continuous 24-hour cycle. These squadrons not only excel in the traditional role of reconnaissance and surveillance but also in the broader mission of providing situational understanding of the operational environment. This includes political, cultural, economic, and demographic factors.

The SBCT’s organization and equipment is designed to conduct small-scale contingencies. However, these units can augment heavy or light divisions during larger scale operations. As a motorized force, the SBCT is designed for fast-paced, distributed operations. Typically, it operates within an AO of approximately 50 x 50 kilometers. Its RSTA squadron disperses throughout the entire AO while infantry battalions normally operate within smaller

Medical Evacuation Vehicle



Fire Support Vehicle

areas, noncontiguous to each other. Infantry companies and platoons may also be dispersed within the battalion areas.

The SBCT’s C4ISR capabilities and high mobility enable it to operate differently than in the past. This is a result of the enhanced situational understanding available to SBCT commanders. In the past, maneuver forces normally made contact and developed the situation. The SBCT, with its enhanced situational understanding, is able to develop the situation, move to positions of advantage and then initiate contact at a time and place of the commander’s choosing.

The SBCT, with the infantry company mission as its focus, provides war-fighting CINCs a flexible ground-fighting force anywhere in the world within 96 hours. The SBCTs reflect a great improvement in strategic responsiveness while providing the needed lessons for development of future forces.

Mr. Ron Kuykendall served as the TSM Bradley Master Gunner from 1995 until he retired in 2001. He then served as chief of the Bradley New Equipment Training Team until August 2003. He currently serves as the TSM Stryker/Bradley Technical Advisor.

Command Vehicle



EXECUTION OF A JOINT TASK FORCE RAID:

An SBCT Platoon Takes on JRTC

FIRST LIEUTENANT GARY W. PICKENS

This article discusses a raid conducted during Joint Readiness Training Center (JRTC) Rotation 04-05 inside the Peason Ridge Maneuver Training Area as seen by a Stryker Brigade Combat Team (SBCT) rifle platoon leader. The planning, execution, and lessons learned from this mission will all be discussed in depth in the following paragraphs. The JRTC rotation was conducted as a mission rehearsal exercise (MRX) prior to the deployment of the 1st Brigade, 25th Infantry Division (SBCT) in support of Operation Iraqi Freedom (OIF) III. Throughout this article I will stress the importance of conducting solid, focused, and involved rehearsals, since this was paramount to my platoon's mission accomplishment.

This mission was conducted as a joint-task force raid involving a Stryker Brigade Combat Team (SBCT) rifle company, an operational detachment alpha (ODA) team, an operational detachment bravo (ODB) team, and roughly a company-sized element of the Iraqi National Army (INA) mounted on 5-ton trucks. Although the initial mission was to conduct a raid, the further that the task force went into the orders process and the military decision-making process (MDMP), the more that the mission assumed the characteristics of a deliberate attack. During the mission, the platoon's task organization included two rifle squads, a weapons squad, four Stryker Infantry Carrier Vehicles (ICV), an engineer squad, a Stryker Engineer Squad Vehicle (ESV), and a headquarters section.

This task organization provided the platoon with tremendous combat power. The platoon totaled three .50 caliber and two MK-19 remote weapon station (RWS) platforms, three dismountable M240B teams, accessibility to demolitions, eight AT4s, three Javelin anti-tank missile

systems, and 26 dismountable Soldiers. Also, each Stryker carried the Force XXI Battle Command Brigade and Below (FBCB2) system, which gives near-real time positional navigational assistance and a digital means of communication. The platoon was outfitted with state-of-the-art thermal optics for individual and crew-served weapons and roughly 75 percent of the Soldiers carried night vision optics.

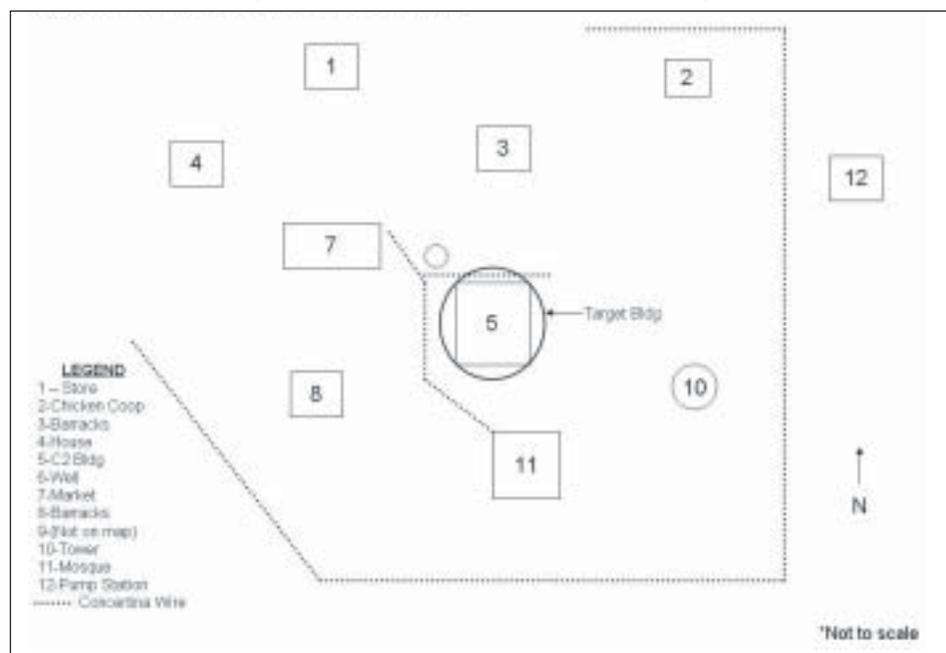
The platoon's original mission during the rotation was to provide forward operating base (FOB) security for the battalion FOB. The platoon was occupying various towers and guard positions throughout the FOB in a static manning rotation turning over every 12 to 18 hours. Upon receipt of the company warning order (WARNO) the platoon was relieved by elements of the headquarters and headquarters company (HHC). The relief facilitated the platoon and company leadership the necessary time to conduct the orders process and the MDMP.

PLANNING

The company was allotted ample amounts of time to conduct the initial planning and course of action development while still in the FOB. The timeline that was issued to the platoons was that there were up to 48 hours between the time the company left from the FOB to occupy the tactical assembly area (TAA) to the time of execution. This timeline was subject to change based off of the intelligence gathered by Special Operations Forces (SOF) surveillance and reconnaissance (SR) teams operating inside the objective (OBJ) area. The company commander conducted extensive parallel planning with both the SOF ground commander and his platoon leaders.

Estimated enemy disposition and composition on the objective, OBJ HOUND, was 20 enemy (OBJ was a suspected terrorist training camp that involved an estimated 8-10 cadre and 10-

Figure 1 - Objective HOUND (Merrill Village)



12 students) and 8-10 noncombatants. The noncombatants were believed to be located in the vicinity of the town mosque (Building 11). Enemy forces were armed with small arms, rocket-propelled grenades (RPGs), at least two technical vehicles, one 82mm mortar, and one SA-16. The objective building was a two-story, multi-room building with a front and rear courtyard protected by a wire obstacle and overwatched by fighting positions to the east. The enemy was projected to defend in place with possible counterattack from the east and improvised explosive devices (IEDs) along high-speed avenues of approach from the south.

The company concept called for a multi-phased execution with the intent to piecemeal the objective into smaller platoon objectives that would be seized sequentially. The company would proceed from the TAA, located approximately 10 kilometers to the north of the OBJ, to the dismount point/objective rally point (ORP). From the ORP, the company would approach the OBJ from the west and establish platoon assault positions. Once in these assault positions, close air support (CAS) would drop a 2,000-pound inert (joint direct attack munition (JDAM) bomb on the target building and AH-64 Apaches would execute 30mm gun runs on the OBJ and the company mortars would fire isolation targets to the east of the objective area. Upon completion of the close air support (CAS) missions, the Supporting Effort 1 (SE1) platoon would clear buildings 4, 1, and 3. Once at Building 3, they would provide suppressive fires to facilitate the movement of the company SE2 platoon, which was to secure Building 8. When Building 8 was secured, the main effort (ME) platoon would move from its assault position to the southwest of the OBJ and clear Building 5. When the platoons had secured their buildings and oriented their fires eastward, the company commander was to call forward the vehicles from a lager point to the south of the OBJ and the ICVs were to augment the security perimeter inside the OBJ and place their fires to the east, too. Once the objective was secured, the company commander would call forward units of the INA to “rescue” the noncombatants from the mosque. Iraqi media crews were on hand to provide video coverage of the event. An aspect of the task force endstate was to encourage positive public support of coalition efforts and assist in the legitimization of Iraqi forces. Upon completion of the “rescue” of the noncombatants, the INA forces were to withdraw followed by the company, mounted in reverse order of movement onto the OBJ.

COMPANY CONCEPT WITH TEMPLATED ENEMY POSITIONS

The platoon concept was centered on a top-down approach to clearing the target building. From the dismount point, the platoon would proceed to its assault position, and the vehicles would move to a larger area to the south of the OBJ to provide mounted direct

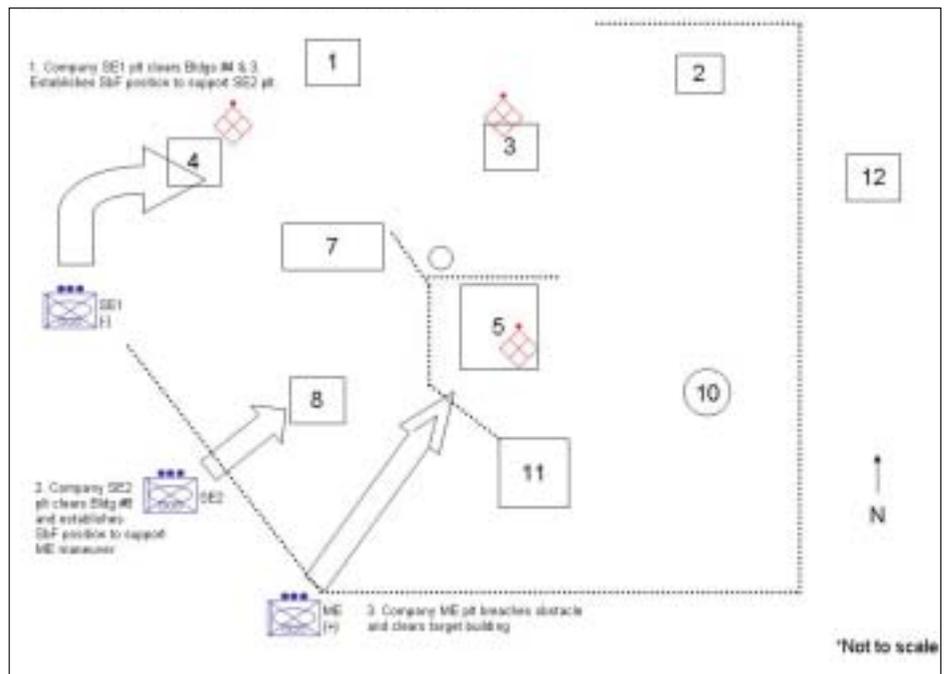


Figure 2 - Company Concept with Templated Enemy Positions

fire support if necessary and standby for a mounted extraction. From the assault position, the platoon would fire three AT4s into the target building: one into the main gate, one into the second story entrance way and one into the left corner of the front courtyard wall. This was the primary method of breach for the platoon. The AT4 shot at the gate was intended to destroy any obstacles blocking the entrance through the gate. The AT4 shots to the second floor entrance way and left corner of the front courtyard wall were projected to destroy or disrupt any enemy forces using them as an ambush position on any friendly forces entering the target building. The ME (3rd Rifle – CLEAR) squad was to be second in the order of approach to the target building. Once at the target building, the squad would stack to the right side of the building and allow the SE1 (2nd Rifle – BREACH) to establish a breach. This breach was focused on reducing any wire that was blocking the gate. Intelligence provided indicated that there was at least one strand of concertina wire surrounding the target building. Primary method of breach was to lay a collapsible stretcher across the wire or utilize wire cutters, if necessary. An explosive breach consisting of bangalores and flex-linear charges was considered, but the safety requirements would have caused too much risk to the Soldiers conducting the breach (Soldiers would have been exposed to fires from the east while they waited for the fuse to ignite the demolitions). Once the breach was established, the ME squad would proceed up to the second floor and secure the top floor. The SE1 squad would be the first squad to approach the target building. They were tasked with breaching the compound wall gate and clearing the ground floor. The SE2 (Engineers – CLEAR/DESTROY) squad was to follow the SE1 and clear the rear courtyard and be prepared to destroy all weapons found on the OBJ or conduct an explosive breach of the compound wall should the primary means of breach fail. The final squad to enter the target building was the SE3 squad (Weapons – SUPPRESS) and they were to proceed to the second floor and orient their fires to the northeast and southeast.

Due to the extensive amount of intelligence that was provided to the company, the platoon erected a “glass house” of the target building and began conducting rehearsals and war-gaming various contingencies. Rehearsals and contingency plans conducted were:

- ✓ React to contact (mounted and dismounted);
- ✓ React to IED;
- ✓ Enter building/clear room;
- ✓ React to ambush (mounted and dismounted);
- ✓ Conduct casualty evacuation (CASEVAC/mounted and dismounted),
- ✓ Breach a wire and mine obstacle,
- ✓ Rollover and fire drills,
- ✓ Fallout drills,
- ✓ Alternate task execution,
- ✓ Actions on OBJ and consolidation and reorganization,
- ✓ Withdrawal from OBJ, and
- ✓ Execute hasty attack.

These rehearsals were executed with the maximum number of personnel involved. Minimal dismounted perimeter security was established for three reasons:

- 1) The ICVs provided adequate perimeter security by scanning with the RWS,
- 2) Facilitate maximum Soldier involvement to ensure that each Soldier was aware of all tasks that needed to be accomplished, and
- 3) INA forces were also part of the security plan and they in conjunction with the ODA teams performed random mounted patrols in our sector.

By allowing maximum Soldier participation in the rehearsals, each Soldier knew not only his assigned task, but also the Soldier to his right, left, and other squads’ missions. Each squad could perform any of the three doctrinal tasks assigned — breach, suppress, and clear — with equal proficiency. This single event was the greatest factor to the success of the platoon. Circumstances that evolved during the execution forced the platoon to execute the mission in a way that was not originally intended.

In conjunction with the platoon rehearsals, company-level rock drills, map rehearsals, walk-throughs, and leader synchronization huddles were also held. Many of these events included leadership

from squad leaders, vehicle commanders, and up. These large-scale rehearsals allowed for each independent maneuver element to solidly understand the other’s segment of the company plan. Also, task force rehearsals included hasty and deliberate attack, withdrawal plans, CASEVAC plans, and indirect fire plans.

Platoon timeline:

21 MAR 04

1300 – Begin tips & scales
1500 – Platoon OPORD issued
1600 – Company leader rehearsal
1800 – Squad rehearsals
2200 – NLT vehicles complete inspection

1900-2359 – Squad PCI / PCC

22 MAR 04

0500 – First call
0600 – Personal hygiene complete
0800 – C-17 loading begins
1100 – C-130 loading begins
2200 – NLT company staged in AA

23 MAR 04

0700-1100 – Squad rehearsals & PCC /PCI

1100-1500 – Platoon rehearsals
1500-1900 – Company rehearsals

24 MAR 04

(T) Leader’s recon & insert sniper teams

2330 – LD from TAA for ORP

25 MAR 04

0200 – NLT set in ORP
0230 – Initiate movement to assault positions
0430 – NLT set in assault positions
0500 – NLT execution of raid

SEIZURE OF 2ND FLOOR & STRYKER POSITIONS

The digitized equipment available to the SBCT platoon can greatly assist the planning of the leadership. Digital route and fire support overlays, friendly maneuver graphics, and enemy templates can all be created on a single FBCB2 and distributed to any number of other systems selected. Also, an order can be written either in the preformatted programs organic to the system or typed out on a free-text message (very similar to a basic word processor) and be instantaneously transmitted to all elements. This outlines in black and white what each subordinate element is required to do. This capability also allows the platoon leader to place

information that would consume large amounts of time to distribute to squad leaders very quickly and effectively (i.e., detain/search/protect lists, enemy/friendly situations, etc.). These capabilities greatly increase the situational awareness (SA) of the Soldiers in the platoon.

In order for the platoon to move into the area of operations (AO), an intra-theater air movement was replicated. The platoon had designated times to conduct all of the preparations that would be required for a real air movement. The planning for this move was conducted by the battalion staff, which freed the company from the constraints of planning such an intricate move. Upon arrival in the AO, the task force was notified that execution of the mission was moved forward 24 hours.

EXECUTION

Once all rehearsals and final PCCs and PCIs were conducted, the platoon formed up and occupied their position in the company march order (last in the order of march). As with all operations, the execution never goes down the way it was planned. There is a saying that goes “fight the fight and not the plan.” Operations, enemy actions, and human error creates friction. This friction can cause well-planned operations to sometimes come unglued. To counter this, plans should be flexible enough to allow for change and fragmentary orders (FRAGO). Also, rehearsals and good communication (voice and dissemination of information) will help leaders get the mission focused again.

During the movement, there were breaks in contact. These breaks in contact were due to a variety of reasons, including lack of dissemination of the route (no strip maps were issued), lack of hard copy maps available to squad leaders, and FBCB2 navigational failures (Navigational assistance relies on GPS, and weather or overhead cover can skew accuracy. As with any other system, the FBCB2 needs a redundant back-up, in this case, hard copy maps would have been the best, but there was an extremely limited number of maps of the area for the company to use). These breaks resulted in the separation of vehicles within the main body, specifically two elements of the platoon (one M240B gun team and one

rifle squad). One of the initial phases of the raid was for the INA forces, along with their ODA teams, to occupy blocking positions to the south of the OBJ. These positions were compromised while the company was executing its movement, and the ground maneuver commander issued the codeword to initiate the hasty attack. This meant that the company would not proceed to the initial dismount point one kilometer to the southwest of the OBJ but would proceed to an alternate dismount point about 300m to the southeast of the OBJ.

Once at the dismount point, the platoon dismounted and formed up into approach march formation minus the rifle squad and gun team, and the remaining vehicles withdrew to the vehicle lager area. At the company release point, the SE1 and SE2 platoons moved to secure their respective objectives, and the ME platoon moved to its hasty assault position. Due to the initiation of the hasty attack, the platoon was forced to approach the OBJ from the southeast rather than the southwest. As the platoon moved towards its assault position, it became apparent that the wire obstacle surrounding the target building was more elaborate (triple strand concertina rather than single strand) which was also pushed out 30m from the courtyard wall. At this point, the decision was made to conduct a mechanical breach. The explosive breach (bangalore torpedoes) was not selected due to the fact that platoons were heavily engaged and inside the minimum safe distance (600m). This was not a viable option because the platoons were exposed and could not withdraw outside the MSD.

By utilizing the FBCB2, one of the two separated ICVs linked up with the company at the dismount point and dismounted one M240B team. This gun team, along with other platoon elements, linked up with the platoon main body so the platoon was now short only one squad, the breach squad (SE1 – 2nd Rifle). The ME squad had the means to conduct a mechanical breach and had rehearsed the drill numerous times. Roughly 75m from the courtyard entry gate, the platoon halted and prepared two AT4s to fire, one at the gate itself and the other at the second floor entrance way. The ME squad sent forward its breach element and began the breach. The breach element began to encounter difficulties with the mechanical execution so a manual (body) breach was performed, for which the Soldier would later receive the JRTC Hero of the Battle Award. Once the breach was established, the ME squad flowed through and began clearing the second floor. The SE2 (Engineers) squad executed one of its alternate missions

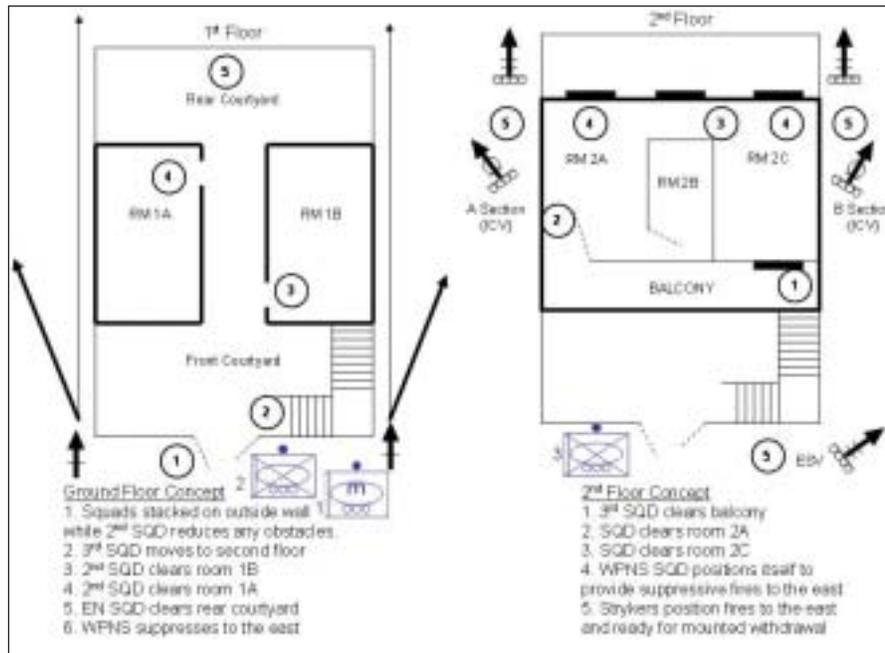


Figure 3 - ME Platoon's Concept for Clearing of Bldg 5

of clearing the entire ground floor and courtyards. The ME squad received two casualties (one KIA and one WIA) as they cleared the top floor of the target building. Weapons squad followed suit and set the M240B gun teams in windows oriented to the northeast and southeast to suppress any possible enemy counterattacks. Located within the target building were six enemy soldiers (five KIA and one WIA) and a substantial weapons cache consisting of SA-17s, RPGs, small arms ammunition, and demolition charges. There were no civilians located on the OBJ and all technical vehicles templated to be on the OBJ had already moved south and were harassing the INA blocking positions.

During the harassment (both direct fire and indirect fire) of the INA blocking positions, the second separated ICV linked up with the company first sergeant at the company/task force casualty collection point (CCP) and began to combat the enemy forces probing the CCP. That squad assisted in providing security and litter teams for the CASEVAC of the company casualties off of the objective. At this time, the company XO moved the company vehicles to the CCP to counter the enemy forces threatening the CCP. While the platoon's ICVs were engaging enemy dismounted forces in the woodline, an insurgent dismounted force closed with the Strykers and were able to destroy one of the platoon's five Strykers (an ICV) with a satchel charge. This is an inherent risk with mounted vehicle operations – they are extremely vulnerable to close dismounted enemy personnel.

CONSOLIDATION AND REORGANIZATION

Once inside the target building with a "cleared" status declared, establishment of the platoon CCP and detailed searches of the enemy on the OBJ commenced. Upon completion of the searches, all enemy weapons and ammunition (a substantial amount) were consolidated in the rear courtyard along with other weapons and ammunition found throughout the objective area (i.e. an 82mm mortar and accompanying rounds). With the commander seeing the amount of cached equipment that was originally decided to be removed from the objective, the decision was made to destroy the caches and equipment in place. This was also due to the fact that several mines/IEDs were placed along the high-speed avenues of approach leading into the objective area and vehicles could not move within 300m of the OBJ.

During the platoon's consolidation and reorganization, a fire team-sized element counterattacked from the east and the M240B

gun teams destroyed them before they could place accurate direct fires against any friendly forces. No INA forces approached the OBJ due to the fact that all INA forces were occupied with the insurgent mounted and dismounted threat located in the vicinity of their blocking positions in the south. Once consolidation of enemy arms and ammunition was complete and demolition charges prepared, the platoon began a dismounted withdrawal to the vehicles, located roughly 400m from the target building to the southeast. The platoon linked up with the vehicles and the remainder of the company and proceeded to the task force link-up rally point located three km to the southeast. The squad that was assisting with CASEVAC completed its mission at hand and rejoined the platoon. Once the company completed consolidation, it began mounted exfiltration of the AOR to the south. From this point, the platoon would posture itself to conduct follow-on operations and possibly return via ground or air movement to the battalion sector and FOB.

LESSONS LEARNED

△ **The route is important, too.** The route was the only aspect of the plan that was not well rehearsed or well disseminated. The route was discussed in depth and rehearsed at the company and

task force level, but not at the platoon level. Because of this, breaks in contact and route confusion provided unnecessary friction to mission accomplishment. The route to the OBJ is just as important as the actions on rehearsal. If you cannot get to your objective, how can you accomplish your mission? The FBCB2 is a tremendous tool to assist in navigation and communication between SBCT units, but it is only a tool. Nothing can replace a map and compass. At a minimum, strip maps identifying key terrain features (an intersection, towers, turns, etc.) and checkpoints should have been distributed to each vehicle commander/squad leader in the absence of hard copy maps. Also, a route reconnaissance could have been conducted by a representative of each element to ensure that the route to the target area was known.

△ **Slow is smooth and smooth is fast.** Once on the OBJ, searches of the enemy personnel and weapon caches were executed haphazardly. These searches were conducted with speed and quickness, and Soldiers were neglecting to identify any possible booby traps and compromising the security of their buddies and themselves by trying to rush through their actions.

Nothing should override the Soldier's need to secure themselves and their fellow Soldiers. Recent evidence has come to light that insurgents in Iraq have been booby-trapping weapons and equipment to cause injury to coalition Soldiers as they search or handle confiscated equipment.

Secondly, speed equals security in a MOUT fight, but not to the point that steps in a process are ignored or altered. Those steps are there to ensure that Soldiers execute fundamental actions with minimum amount of thought. In the attack, upon approaching the objective building, the platoon encountered a wire obstacle 30m from the point of entry. Upon reaching this obstacle, a breach that did not adhere to principles of breaching (suppress, obscure, secure, reduce) was conducted which resulted in the loss of one Soldier to enemy direct fire. Again, this is attributed to the emphasis placed on speed by the platoon leadership. The leadership should have set the conditions for a more successful breach by setting the conditions, throwing smoke to obscure the entire breach, and suppressing the target building with fires from both the platoon and overwatching elements (other platoons and the company / battalion sniper teams).

△ **Rehearse actions on the**



objective. As stated before, the amount of time dedicated to rehearsals and contingency plans was the largest factor that contributed to the success of the platoon on the objective. Soldiers were clear on what was expected and required of them during the mission. Whenever possible, rehearsals should be conducted at the platoon level and higher and involve as many personnel as possible to clarify any questions that any Soldier or leader may have.

△ **Set the conditions for the fight.** Prior to the execution of the raid, both Air Force and Army attack aviation were to prepare the objective with CAS. There was a 2,000-pound JDAM inert bomb that was to be dropped on the target building, and AH-64 Apache 30mm cannon gun runs were to be initiated to destroy enemy on and around the objective (technicals and reports of light armored vehicles operating around the periphery of the objective area prior to the compromise of the INA blocking positions. The armored threat ended up being false). When the hasty attack was initiated, the CAS had not yet come on station. Therefore, all CAS scheduled to hit the OBJ was canceled and shifted to an overwatch role to the southeast. In retrospect there was ample time to allow the CAS to accomplish their assigned tasks and not endanger any friendly forces during the execution of the hasty attack. Although the authority to abort any CAS missions was beyond the scope of a platoon leader, the cancellation of the JDAM mission was very relevant to the execution of the platoon's mission.

△ **Deliberate versus hasty attack.** The mission originally was designed as a raid which evolved into somewhat of a deliberate attack. During the movement from the TAA to the ORP, the task force supporting effort was compromised and the Task Force Commander launched the hasty attack contingency plan. Looking back, there was still ample time to maneuver the task force main effort (the SBCT Rifle Company, plus attachments) into position to execute its attack. The element of total surprise was lost, however, but the resources available for a deliberate attack were lost, these being the Strykers, their RWS (maximum effective range approximately 2,500m), and the CAS.

△ **Vehicle security.** As mentioned previously, the platoon lost a vehicle to dismounted insurgents and a satchel charge. As with all vehicles, there are blind spots around the vehicle that the crew members can not see from inside the vehicle. One technique to combat this shortfall is to ensure that all vehicles utilize the wingman concept, in which each vehicle is paired with another vehicle to provide mutually supporting roles. Another technique is to have dismounted security around the vehicles. When this technique is used, communication between the dismounted Soldiers and the mounted vehicle crew is essential to effective security. Vehicle security is always necessary, regardless of the mission, but the type of security will be based on METT-TC.

The biggest key to success for this mission at the platoon level was the rehearsals conducted. In my experience you can never do enough rehearsals. Someone once told me the saying, "I hear — I forget; I see — I remember; I do — I understand." Rehearsals at a minimum should be conducted as a brief back and should involve as many Soldiers as possible. I have found most of my success by maximizing the time for

In my experience, you can never do enough rehearsals. Someone once told me the saying, "I hear — I forget; I see — I remember; I do — I understand."

squad leaders to conduct their rehearsals. Also, the amount of time given to the platoon by the company commander is also important. Platoon leaders need to fight hard to give their Soldiers the time they need to properly prepare for an upcoming mission. Another contributor to mission success was the amount of detailed intelligence provided to the company. Floor plans and layout of the target building along with the objective area were very exact and facilitated accurate rehearsals.

One aspect of the SBCT concept is situational awareness (SA). SA is accomplished through many systems within the Stryker brigades. The FBCB2 is probably the keynote system of the SBCTs. Overlays and orders can be developed on a single or multiple computer and disseminated to every squad-sized element in the unit. Also, spotted enemy forces and key activities (ambush or IED for example) can be populated on every FBCB2 in the brigade by a single element experiencing those activities first hand, allowing advance warning of danger areas. Also, frequency-hopping radios (AN/PRC-148 MBITR) are pushed to the squad level, which provides that squad leader with a readily accessible resource to both send and receive important information. SBCT assets such as UAVs, Prophet (a signals intercept radar), and company-level snipers all enhance a unit's SA by providing current intelligence to both the ground commander and the Soldier in the foxhole.

This mission demonstrated that today's military needs to be prepared to conduct a variety of missions and tasks. Everything from a combat patrol to distribution of humanitarian aid may be encountered on a mission. The mission was originally planned to incorporate stability and support operations (SASO) by "rescuing" the noncombatants from the mosque. Upon reaching the mosque, the noncombatants were not there and this mission became a purely direct action mission. The mission faced by this platoon is typical to what units do in their participation of a MRX in preparation for OIF. The bottom line is that Soldiers must be prepared to execute a variety of tasks and the best way to ensure that is to have solid rehearsals and easily applied SOPs. This reduces the amount of leader input required for unit actions. In today's Army, every Soldier is being faced with circumstances that their decision will not only affect them and their unit, but the entire scope of operations in their AOR. Today's Soldier is more agile and adaptive than ever and the SBCT is a place that will continue to develop those skills.

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Challenges and Potentials of an SBCT Rifle Platoon Leader

FIRST LIEUTENANT RENATO E. ANGELES

The Stryker Brigade Combat Team (SBCT) concept is truly worth examining because of its potential and its applicability to future operations. A recently concluded Initial Operational Test and Evaluation (IOT&E) unmasked great potential for the SBCT concept as the way to fight. The purpose of this article is to provide a glimpse of the challenges and potentials of an SBCT during the train-up and of the IOT&E from a platoon leader's perspective.

The concept, task organization, and organic weapons within the platoon have greatly altered the dynamics of the way you fight with the SBCT platoon, because fighting the fight at the platoon level within an SBCT rifle company can quickly become fast paced and lethal. The task organization and organic weapons in the platoon make it more lethal and capable of accomplishing many varied tasks that may be unique to an SBCT rifle platoon. Organic weapons include Javelins, AT4 (not by MTOE but part of unit's basic load), MK-19 grenade machine gun and the M2 .50 caliber machine gun. These weapons, combined with four Stryker Infantry Carrier Vehicles (ICVs), three full squads with designated marksmen and a weapons squad, are the core that make an SBCT rifle platoon both lethal and highly mobile.

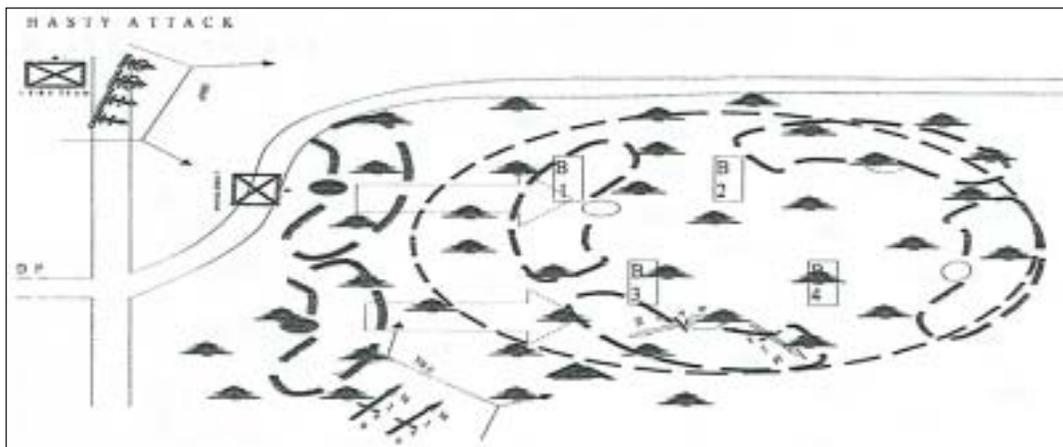
During the IOT&E, we accomplished a myriad of tasks and objectives such as conducting platoon ambushes, establishing and manning traffic control points (TCPs), conducting presence patrols,

performing route clearance and cordon and search operations, reacting to contact, raids, and defend in sector drills. A typical platoon objective consisted of a sector measuring between five and 10 kilometers. The platoon missions varied from collapsing defense to platoon attacks; the tasks and objectives were multifaceted, requiring creative solutions to complicated and dynamic tactical situations.

Flexibility, firepower, and mobility are the hallmarks of an SBCT rifle platoon. Navigating through the complexities of employing the platoon in tactical settings at first created challenges we needed to address. The whole concept of fighting as part of an SBCT unit is new and still needs to be refined, but the potential is too evident not to be realized, and we need to continue to refine and train on the tactics, techniques, and procedures that will let us take fullest advantage of the capabilities of the Stryker Brigade Combat Team.

The key to the SBCT's success is the effective application of its strengths, while at the same time continually correcting and mitigating its weaknesses. With its task organization, organic weapons and attached assets, the SBCT platoon can unleash firepower comparable to a World War II rifle company. Its firepower





ICVs can be used to infiltrate, provide SBF, and block the enemy during platoon missions.

can be devastating and lethal, capable of destroying a company-size element or more, and we need to teach ourselves and train others to accomplish just that.

Mobility, Enablers, and the Combined Arms Fight

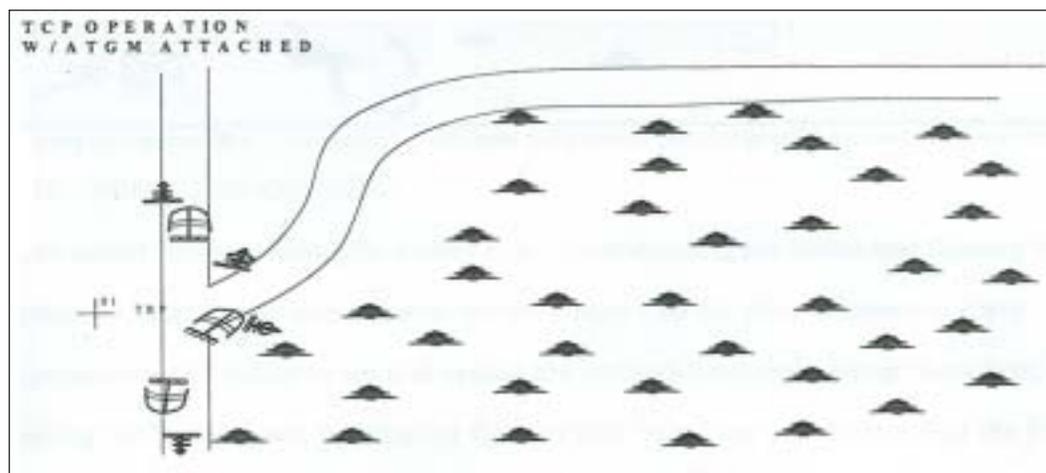
Mobility is the heart and core of an SBCT rifle platoon. Coupled with other combat multipliers, the SBCT's mobility allows the platoon leader to better visualize the battle space, and he can quickly relay time sensitive information throughout the company sector. Real time information allows the platoon leader and company commander to make critical decisions on how to shape the fight and effectively engage and defeat the enemy. During a given platoon mission, the platoon leader can utilize the full spectrum of combined arms available to him. He can combine company indirect fire assets with his platoon's direct fire assets, and the anti-tank guided missile/mobile gun system (ATGM/MGS) — when it is attached to the platoon — to create a lethal combination. During traffic control point and defend in sector operations with a mechanized threat, the ATGM/MGS can augment the platoon's combat power by identifying and neutralizing mounted threats. Indirect fire capability at the company level can be allocated by priority to help the platoon that needs this support.

The engineer platoon is an asset that we can use for mobility and countermobility operations in support of the rifle platoon's missions. The engineer platoon

can affect a rifle platoon's combat effectiveness by not only building obstacles; they can also fight the dismounted fight when needed. Company and battalion snipers can also be used on a given platoon mission to help identify and neutralize threats, especially during presence patrols and on raids.

The ability to close with and destroy the enemy with firepower and maneuver is a capability that makes the SBCT rifle platoon lethal and effective. A rifle platoon is composed of four ICVs, which are able to move on terrain that most tracked vehicles would be hard pressed to traverse. This capability makes the platoon both versatile and multifaceted in its application. After performing the many tasks and objectives during the IOT&E, it was clear that mobility is key to success and mission accomplishment. Because of their increased mobility and maneuverability, the ICVs move faster during infiltration and exfiltration, and these capabilities result in greater lethality and survivability.

ATGM adds depth and firepower to the rifle platoon during TCP operations and other missions.



During reconnaissance and counter-reconnaissance missions, the ICVs' mobility is especially noteworthy. Mounted patrols and observation posts (OPs) disrupt enemy reconnaissance efforts and limit his ability to reconnoiter. Denying him this ability can easily be accomplished with active patrolling and shifting observation posts. During the many training exercises, winning this fight proved devastating to the enemy and was critical to the success of the

SBCT rifle platoon and company team.

See, Understand, Fight

The added value of seeing the enemy first, understanding his intent, and fighting him when he least expects it can wreak havoc on him and on his plan. The ability to see and exploit the enemy's weaknesses is decisive to every operation. Being there first, seeing the battle space and fighting on your terms are all capabilities that the rifle platoon can employ in any given fight. Mobility, coupled with other combat multipliers, can provide the commander vision of the area of responsibility (AOR) and battle space. Acting as eyes and ears for your unit are added capabilities that a platoon can perform to augment the battalion's scout platoon. This can also significantly aid your commander in painting a common operating picture (COP) of his battle space. FM radio and the Force XXI Battle Command Brigade and Below (FBCB2) are two enablers that can be employed to better visualize your

battle space and both can help you obtain an accurate or at least much improved picture. Both have limitations, but when applied their practical use is truly amazing. Timely and accurate information can also be transmitted with these enablers.

Firepower and Flexibility

The organic weapons and task organization within an SBCT platoon make it a formidable fighting force. The platoon's firepower can delay the adversary or destroy him in his tracks. During ambushes performed during the IOT&E, the ICVs not only demonstrated enhanced lethality, but also proved flexible enough to meet any threat. The platoon's ability to react to any situation is assured by this ability. In any mission, the platoon can transition and fight the fight itself, not the plan. The ability to fight the fight and not the plan gives the platoon the flexibility to adapt to any situation. This capability allows the platoon to meet the threat and engage the enemy with the force and flexibility available to it. Depending on the situation, there may be some limitations to the platoon's flexibility and firepower, but the platoon's ability to regress or exfiltrate and transition to fight the fight allows it to be flexible (and move to relative safety before fighting). The platoon's enhanced survivability and its ability to quickly transition to meet and engage any threat are attributes that cannot be underestimated.

Training, Learning, and Developing Leaders

Along with everything else in the Army, it takes time for leaders to grow and be able to employ their rifle platoons to their full capabilities. If the recent events of the IOT&E are any indication, leaders can be entrusted to meet this challenge. Today's technological lead over our adversaries, combined with our doctrinal dominance and decisive leaders, make for a tactical dream team, but to get to this state requires much training and time to develop doctrine and TTPs to cope with the changing threats.

Learning and growing as a leader is an ongoing process. The holistic approach to this is the only way to go. This requires focus and involvement from the chain of command. Leaders and Soldiers gain — and instill — confidence in one another through their demonstrated abilities. Commanders and leaders in general trust those whom they perceive to be competent. A person's ability is often viewed through the lens of his actions and the confidence he either exudes or lacks. Confidence is gained through success, and success is a by-product of preparation and training. To this end, there is no substitute for detailed, mission-oriented training and preparation for combat.

Maintenance ranks high among some of those issues that need further refinement. The light mentality of a unit moving into a medium brigade is a challenge that must be dealt with quickly and vigorously. We cannot afford to waste time on the petty and misguided notion that vehicles are simply the means of transportation. Maintenance must be balanced into the equation of training and resources, because a unit's vehicles can only be useful if they work.

Training in general can be modeled using the bottom up concept, with major emphasis on the required mission essential

Seeing the enemy, understanding his intent, and fighting him when he least expects it are the capabilities a SBCT rifle platoon must master.

task list (METL) tasks. A commander can minimize and manage his resources for training at the platoon level if given a chance. The ICVs give the platoon and squad leaders the ability to do more with less, if they are allowed to develop and exercise initiative. Emphasis on the basics is key to success. The fight is always going to be at the platoon and squad level, and platoon and squad leaders must be trained and able to fight the fight as it evolves, and not simply focus on executing the plan.

Seeing the enemy, understanding his intent, and fighting him when he least expects it are the capabilities an SBCT rifle platoon must master. Platoon and squad leaders must understand and be able to employ this capability. The combined arms fight, short of close air support (CAS), can be employed on any given mission. A leader must develop the habit of using the SBCT assets to augment the rifle platoon to accomplish the mission. The platoon leader has within his grasp the capability to complete any task he is assigned to do. Employing additional assets on platoon missions has its challenges, but the enhanced potential for success cannot be ignored. The decisive point or critical task for the platoon leader continues to be the ability to predict and assess the enemy's intent and actions. The real challenge is employing the platoon to its fullest potential, and that can only be realized with much time and training.

Decentralization and subordinate initiative are key factors that have direct bearing on success and failure. Training subordinate leaders to be thinkers must be part of the training process. Subordinate leaders able to react and act independently are key to completing missions with minimum casualties. Empowering junior leaders and building their confidence pays dividends in many ways. Squad and team leaders are the ones on the tip of the spear; their education and learning are critical. Seeing a platoon performing at peak level is a gratifying experience. A platoon executing at peak level can accomplish any mission, and this the ultimate goal of an SBCT rifle platoon.

The potential for the SBCT concept is yet to be fully realized. The first SBCT, the 3rd Brigade, 2nd Infantry Division, is already deployed and fighting in Iraq. Surely its performance will be closely monitored and evaluated, and the unit will be assessed on what it was able to do and what it wasn't able to do. For that reason, we must be careful to weigh the unit's value in light of the full spectrum of its capabilities and the manner in which it employed those assets to meet the missions and challenges presented to the unit. The debate will linger on; the way we fight will be an ongoing battle as the enemy changes and new threats emerge. Suffice it to say that the potential and capabilities of an SBCT rifle platoon are very promising. Soon, a second SBCT, the 1st Brigade, 25th Infantry Division, will deploy. I am confident that we will meet the challenge and validate the carefully developed and resourced SBCT concept.

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TRAINING NOTES



Immediate Action is Action Taken Immediately

SERGEANT FIRST CLASS JAMES B. COUCH

“In 1607, the Wapenhandlinghe of Jacob de Gheyn was published. This beautifully illustrated drill manual showed each stage of loading a musket and readying a pike. It was soon translated into Danish, German, French, and English, and across Europe troops began to be systematically drilled... Gustavus Adolphus trained his troops so well that he was able to reduce the number of ranks to three (one kneeling, the second crouching, the third standing) and yet still maintain a continuous fire of volleys.”

— **Professor Johann P. Sommerville**,
University of Wisconsin-Madison
(<http://history.wisc.edu/sommerville>)

The handling of weapons (Wapenhandlinghe) is a Soldier skill that we need to train and reinforce to a greater degree than we are now doing. Without proficiency in these skills, our focus on marksmanship, especially short range marksmanship (SRM), is handicapped from the start. Like attempting to build a house without first pouring the foundation, we’re doomed to failure the first time the ground gets a little wet. Nowhere is our collective lack of skill more apparent than when watching a new Soldier deal with a malfunctioning weapon.

No matter what the authors of Field Manual 3-22.9 (*Rifle Marksmanship M16A1, M16A2/3, M16A4 and M4 Carbine*) tell us, SPORTS (slap, pull, observe, release, tap, squeeze) is not immediate action. The procedure has flaws in its training and execution and needs to be replaced. These flaws include:

- SPORTS take too long;
- It is likely to cause as many

problems as it corrects;

- It is impossible to perform correctly in the dark; and

- It will probably be performed incorrectly under stress such as in combat.

The biggest problem with SPORTS is that it has Soldiers attempting to diagnose (observe) the problem during immediate action. There is a big difference between looking and seeing. It is difficult a Soldier will be able to “observe” anything in a gunfight. Even if we assume that we can condition our Soldiers so well that they can perform SPORTS perfectly every time, they can’t see into the chamber to “observe” at night. It is unlikely that a Soldier whose weapon malfunctions in the dark will either pull out a flashlight or refocus his night vision device (NVD) to perform SPORTS. By teaching this procedure, we have placed the Soldier in a situation for which has not been trained every time the sun goes down.

There are other problems with the mechanics of SPORTS, but the fundamental issue is that it is something that you cannot just “do.” It requires you to make a decision — “observe for ejection of a live round or expended cartridge” then decide what to do. This flaw isn’t obvious to those of us currently serving because of the way that we were trained and evaluated right from the beginning of our Army careers. Inevitably, SPORTS is trained initially with an empty weapon in a classroom and reinforced in the barracks during basic training. This introduces the fallacy that SPORTS is immediate action. The reason that no decision is required after “observing” is because there’s never anything to observe (double feed, stovepipe, round stuck in chamber, whatever). Same thing for the EIB test – the Soldier knows

that he’s going to get five rounds, one of which is a dummy. This too makes it seem like SPORTS is immediate action. In the event that SPORTS doesn’t work, the explanation of remedial action in FM 3-22.9 para3b is not helpful. The order is incorrect, and there’s a good chance that if the Soldier follows the instructions as written in the manual, he will make a bad situation worse. The CTT (common task training) manual’s explanation of remedial action is even worse than the FM’s, as I will discuss later.

What needs to be trained is true immediate action and continuation of the drill through remedial action. If a malfunction occurs, perform IMMEDIATE action. Period. Do not attempt to diagnose the problem, just do it. Soldiers must be able to do it blindfolded, in the dark, with chemical protective gloves on. If immediate action does not fix the problem, perform remedial action, for which there need to be definite and well thought out steps. The method I have been retraining my Soldiers to perform is TPRRRS (pronounced “tapers”).

Before going into detail about a possible replacement, let’s take a closer look at the problems with SPORTS.

SLAP

“Slap” is intended to correct a weapon’s failure to feed. As long as the magazine is not damaged (bent feed lips/weak spring/spot welds on back broken), the main cause of a failure to feed is that the magazine is not fully seated. The shooter either incorrectly inserted the magazine on the load/reload, or the magazine release button was inadvertently pressed. Making sure that the magazine is seated is a good starting



Staff Sergeant Charles B. Johnson

point for immediate action. The problem is not the step, but how it is trained. What the FM says and how it is being trained to be done are two different things. The way it's taught to some Soldiers is to vigorously pound on the bottom of the magazine, usually two or three times. The problems with this technique are twofold. First, the Soldier is wasting time by slapping it more than once. Most firefights are two-way affairs. Adding extra motion means adding extra time — time during which the enemy's weapon is probably working just fine. Second, and more importantly, by "slapping-the-heck-out-of" the magazine, there's a pretty good chance that if the bolt is back for whatever reason, extra rounds will be forced out of the magazine. This will actually cause a double feed (or triple if the original malfunction was a double). Paragraph 3-1a of FM 3-22.9 says, "Slap gently upward on the magazine to ensure it is fully seated, and the magazine follower is not jammed (see note)." The note, which is at the bottom of the paragraph, reads "When slapping up on the magazine, be careful not to knock a round out of the magazine into the line of the bolt carrier, causing more problems. Slap only hard enough to ensure the magazine is fully seated. Ensure that the magazine is locked into place by quickly pulling down on the magazine."

Why is it that this is rarely done? For starters, the old FM 23-9 mentioned nothing about gently slapping or pulling down on the magazine. Admit it, how many of us actually read the new 3-22.9 when it showed up in our training library? The second reason why Soldiers are not pulling down on the magazine is how ammunition management is trained. At no point in the Army's formal school system is anyone trained to do anything other than "run the gun dry," i.e. shoot until the bolt locks to the rear on an empty magazine. This, combined with both the way that ranges are conducted (bolt locked to rear until told to load by the tower) and the steps of the CTT task "load M16 series rifle" means that

Soldiers are never trained/evaluated putting a fully loaded magazine into their weapon with the bolt closed. With the bolt to the rear, magazines insert very easily. With an unloaded magazine and the bolt forward, magazines insert very easily. Loading a magazine with 28 rounds in it and the bolt forward — not so easy. It's even tougher with 30. Even though it's never trained, many Soldiers are smart enough to reload before they actually run out of ammunition. Performing this type of reload (with the bolt closed on a live round in chamber) is when they really need to pull down on the magazine to make sure that it is fully seated, preventing one of the major causes of failures to feed.

PULL

Pulling the charging handle to the rear is similar to "slap", but the problem lies in how it is being trained. Manually working the action to get a new round into the chamber is required if the problem was that the magazine was not fully seated. Manually working the action to get rid of a bad round is required if the problem was a failure to fire. Manually working the action is required to get rid of a round if the bolt failed to unlock or extract the case because of a lack of gas pressure (fouled/damaged gas tube or loose carrier key). Or maybe the action "short stroked" from the above-mentioned lack of pressure or from holding the weapon too loosely (limp wristing).

Pulling the charging handle to the rear is indicated in all of the above scenarios. The issue is that there is absolutely no reason for the shooter to take his firing hand off the pistol grip or the butt stock out of his shoulder to accomplish this! SPORTS is almost universally taught with the firing hand manipulating the charging handle while the non-firing hand supports the weight of the rifle. Neither the M4 nor the M16 (even with an M203 attached) weighs so much that a reasonably conditioned Soldier cannot be expected to hold the weight up with the firing hand on the pistol grip. This keeps it where it needs to be to actually shoot the enemy after clearing the malfunction. Adding the extra movement and switching hands is flat out wrong. If your weapon is malfunctioning, it means that you were trying to shoot somebody with it, and it reasonable to assume that he is probably trying to do the same to you. As noted firearms trainer Clint Smith will be glad to tell you, "Take all the time you need, you've got the rest of your life to fix your problem. How long you live depends on how well you do it."

Weapon manipulation needs to be done as efficiently as possible. Adding extra motion equals adding extra time, and getting back into the fight one or two seconds quicker might be the difference between first and second place; and second place in a gunfight generally involves long stays in the hospital or worse.

OBSERVE

Observing the ejection port is contraindicated by the fact that this is immediate action, and we're not trying to figure out what the problem is. Beyond that, there are some issues with the act itself that should be addressed. The first is what exactly are we looking for? There are some discrepancies in the literature. FM

3-22.9 says: “Observes for the ejection of a live round or expended cartridge. (If the weapon fails to eject a cartridge, perform remedial action.)” (para3-1a).

On the other hand, the Soldier’s Manual (STP7-11BC1-SMTG Task 071-311-2029) states: “Observe the ejection of the case or cartridge. Look into the chamber and check for obstructions.”

The version out of the FM makes little sense. If the malfunction was a failure to feed, then there will be no old cartridge to eject. Proceeding on to remedial action at this point will discover—and yield—nothing. All that needs to happen to get back into the fight (thereby greatly increasing our odds of killing the enemy before he kills us) is to release the charging handle, aim, and put a bullet through the adversary’s center of mass. The CTT method makes a little more sense. The big problem is that in order to “look into the chamber and check for obstructions,” (assuming that there’s enough visibility) one has to roll the weapon onto its left side — ejection port up. The law of gravity is one of those things that applies even to the armed forces. If there is anything floating around in there, it’s going nowhere until we flip the weapon over, adding more steps that don’t need to be taken. Again, the big problem with this whole step is that to quote the definition of immediate action from FM 3.22-9: “Immediate action involves quickly applying a possible correction to reduce a stoppage without performing troubleshooting procedures to determine the actual cause.” Observing fixes nothing. It’s not a “possible correction.” If we’re not trying to determine the actual cause, we don’t need to observe anything during immediate action.

RELEASE

Release the charging handle. This step gets no arguments from me.

TAP

Tap the forward assist. The intent of this step is to correct a failure to lock. Unfortunately, what it actually ends up accomplishing is something completely different. The forward assist was not present on the original M16, but was added on the M16E1 to enable a manual way to correct failures to lock. Why would the weapon fail to lock? Either the action spring didn’t drive the bolt carrier hard enough, or something is physically preventing the bolt from rotating. If the problem was caused by the accumulation of fouling causing a short stroke, the “pull charging handle to the rear and release” steps will have already solved the problem. The only times I have ever seen an M16 series weapon consistently fail to lock from carbon fouling is from blanks. On the other hand, I have witnessed on many, many occasions Soldiers ramming on the forward assist when the problem is a physical obstruction in the chamber, usually a double feed. If they were performing SPORTS by the book, they never would have gotten to this point, since they should have caught the problem on the “observe.” All that pounding on the forward assist is going to do is jam the bolt and carrier harder into whatever the obstruction is. We’ve all had or witnessed bolt-over malfunctions. How did that cartridge get up there and wedged in so tight? There’s a darn good chance that the shooter did it by performing SPORTS. Whamming on the forward assist is more likely to make any

“Immediate action involves quickly applying a possible correction to reduce a stoppage without performing troubleshooting procedures to determine the actual cause.”

— FM 3.22-9

problem worse than it is to fix anything. Beyond its dubious (at best) ability to fix a failure to lock, the extra motion adds at least a second to performing immediate action; forcing a right-handed shooter to take his firing hand off of the pistol grip. I again point out that avoiding being shot becomes more difficult when performing extra motions during immediate action. At best “tap” is a waste of motion and time, and at worst — will cause irreparable damage to the weapon (for example bending a gas tube where it fits into the bolt carrier key). Like “observe,” this step needs to be completely removed from immediate action.

SQUEEZE

Squeeze the trigger. I’m all for squeezing the trigger, but only after you’ve aimed at the target. In the law enforcement firearms training community, the final step of immediate action has been changed to “assess the threat.” The point is that after clearing a malfunction, getting back into the fight shouldn’t involve shooting by reflex as a last step of immediate action, but by determining if shooting is still justified. Soldiers don’t need to worry so much about lawsuits, but we really should at least imply that you should only fire your weapon if there is a need to.

TPRRRS

Now that I’ve told you what I don’t like about SPORTS, here’s my answer: TPRRRS – tap, pull, rack, roll, release, shoot. It’s quite a mouthful, but it leaves nothing for misinterpretation by CTT/EIB testers, drill sergeants, or truck drivers assigned to maintenance companies. The short version is familiar to anyone who shoots action pistol: tap, rack, bang. My longer version leaves nothing to interpretation; no “see note” as the current explanation of SPORTS does. Once a Soldier learns it, he can literally fall back on tap, rack, bang and get the 90-percent solution.

Tap the bottom of the magazine to seat it.

Pull on the magazine to ensure that it is seated.

Rack the charging handle to the rear with your non-firing hand.

Roll the weapon onto its right side (ejection port down) to allow any obstructions to fall out.

Release the charging handle to chamber a new round.

Shoot the other guy before he shoots you.

This technique will fix anything that SPORTS does but takes half (or less) as much time. It works in the dark. It doesn’t require the shooter to take his eyes off of the target, his firing hand off of the pistol grip, or the butt stock from his shoulder. Most importantly it requires no thought or decision-making skills in the middle of a firefight. Just execute. Admittedly, it will not fix

a double feed, but neither will SPORTS. SPORTS will, if there is enough light to see, identify a double feed, but doesn't actually do anything to fix it. Since the shooter is neither pounding on the magazine or the forward assist, he won't be making a double feed into something worse.

TAP

Notice that by using "tap," "gently" doesn't need to be added. Calling the first step "slap" implies that it is delivered with some force. By renaming the first step "tap," we'll hopefully discourage our new Soldiers from slapping the heck out of the magazine and causing more problems.

PULL

Pull the magazine down. If it's seated, it won't come out. Again, I'm simply taking the actions 3-22.9 calls for in the "note" and adding it to what is actually taught. It should literally be done in the same gross motion as "tap" since the shooter's hand is already on the magazine. He simply closes his hand around it and gives it a tug. If it comes out, put it back in and try again.

RACK

I've replaced the "pull" of SPORTS with "rack." It means the same thing, but I didn't want two "pulls" in a row for two separate actions. You can say pull again as long as it's done with the non-firing hand!

ROLL

Roll the weapon onto its right side. This step is done at the same time that the charging handle is being pulled and momentarily held to the rear. This allows anything that's stuck in the ejection port to fall out once we release the action spring tension (by racking the action to the rear) and letting gravity do its thing.

RELEASE

I added this only to emphasize that we don't release the charging handle until AFTER rolling the weapon onto its right side.

SHOOT

Shooting implies finding a target and aiming, not just squeezing the trigger to

find out if the weapon is really working.

DOUBLE FEED

Great, you say. But what about the dreaded double feed? We've all had them, and we've all corrected them, but how long did it take? How long would it take for one of your Soldiers fresh out of Benning? The manuals are all pretty vague on how to correct a double feed and require quite a bit of thinking, something not easily accomplished in the middle of a firefight. Despite the contradictory information between both paragraphs in the FM and the CTT task, it's really not that difficult. The most efficient and quickest way to fix double feeds is easily taught to Soldiers in about five minutes and becomes almost as quick as immediate action with a reasonable amount of practice.

What makes a weapon double feed? Either the previous round didn't extract or eject, so that it was still in the way when the next round tried to chamber, or multiple rounds came out of the magazine. Unless the shooter was slapping the heck out of the magazine with the bolt to the rear, the only reason a magazine would fail like this is if it is worn out or broken, feed lips bent, welds broken, etc. Failures to extract/eject are a bit more difficult to diagnose, but a major culprit is the extractor spring. Now having said that, let's try to define what we want to do by performing "remedial action". The steps outlined in the CTT task and the FM are not helpful. Let's take a look at what the CTT task says to do with our hypothetical double feed.

2. Perform remedial action.

Note: If your rifle still fails to fire after performing steps 1a through 1f, check again for a jammed cartridge case in the chamber. If a cartridge case is in the chamber, tap it out with a cleaning rod. *Note:* If your rifle still fails to fire, you may have a mechanical failure.

OK, how many of us have ever corrected a double feed by doing SPORTS once (the 1a through 1f that it references)? Also



A Soldier demonstrates the rack and roll commands of TPRRRS. Pulling the charging handle to the rear and rolling the weapon onto its right side, allows anything stuck in the ejection port to be released.

notice that we've got a double feed and pull out a cleaning rod? If you have, you're the only one I've ever heard of. Not that you might not have a malfunction that requires removing a case with a cleaning rod, but going for a cleaning kit is most certainly not the next step to take after immediate action. As far as "you may have a mechanical failure," it's not worth the paper that it's printed on. All of the other steps of remedial action from the CTT task have to do with performing maintenance. Here they are, just to keep you from having to look them up:

b. Correct a mechanical malfunction.

- (1) Clear the rifle.
- (2) Disassemble the rifle.
- (3) Inspect for dirty, corroded, missing, or broken parts.
- (4) Clean dirty or corroded parts.
- (5) Replace missing or broken parts.
- (6) Assemble the rifle.
- (7) Perform a function check.
- (8) Load the rifle.
- (9) Fire the rifle.

To say this would not be very useful in the middle of a firefight would be the understatement of the year. None of the steps that are outlined here help a hypothetical private get his weapon back into the fight before it's over. If you've been in the Army more than six months, you've fixed double feeds before without ever pulling out the cleaning rod or disassembling your weapon. How did you do it? Can you name the steps? You did all of the steps that I'm about to outline, but probably in the wrong order, and in

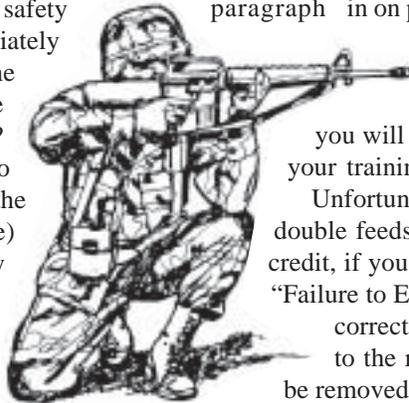
doing so, you (or somebody else that you know) turned a double feed into a bolt over. The wrong way also happens to be the order that the FM says to do it in.

From FM 3-22.9 para 3-1:

b. Remedial Action. Remedial action is the continuing effort to determine the cause for a stoppage or malfunction and to try to clear the stoppage once it has been identified. To apply the corrective steps for remedial action, first try to place the weapon on SAFE, then remove the magazine, lock the bolt to the rear, and place the weapon on safe (if not already done).

Note: A bolt override may not allow the weapon to be placed on SAFE.

Let's think about these steps. First, why try to put the weapon on safe? Why waste the time? You are in a gunfight and your weapon is not working! Someone (or several someones) will be trying to kill you! Don't mess with the safety until later. Getting the weapon working immediately needs to be priority number one. Moving past the silly "put it on safe" issue, what is keeping a double feed from just falling out of the ejection port? What's keeping pressure on the rounds? Two different springs are — the action spring and the spring from the magazine. The two (or more) rounds are being held in place on the bottom by the magazine and spring, the top and left side by the receiver casting and the front either by a non-extracted shell case or simply held against the chamber throat at the wrong angle. The whole mess is being compressed by the action spring.



What we need to do to fix this is:

- o First get rid of the spring pressures that are holding everything in place;
- o Then get the malfunctioning rounds out of the way.

Unfortunately, the manual tells us to remove the magazine first. What this manages to accomplish is to get rid of the support on the underside without first removing the tension (the action spring); that's trying to get two rounds to occupy the same place at the same time. The magazine is usually keeping the multiple rounds at least pointed generally in the correct direction. If you remove the magazine first (as the manual tells us to), the action spring tends to tilt one or more of the rounds either up or down. If it goes down, it ends up poking down into the magazine well. But if we're unlucky and it goes up and into the track that the bolt carrier key rides in (in the receiver casting), we end up with a bolt over. Removing the magazine first also tends to be quite difficult, as it is generally being held in place by a round that has been incompletely stripped from the magazine, forcing the shooter to use a considerable amount of force to remove the magazine. After the magazine is out, we move on to step three – lock the bolt to rear. Hopefully at this point two rounds will fall out of the magazine. Now what? There's a pretty good chance that there is a round in the chamber. It may even be a non-expended round (which is why the manual says to put it on safe). What is our private supposed to do now? Remember, people are shooting at him, his team leader is screaming; he may in fact have already been shot. Do we (as trainers and leaders) expect him to just

figure the rest out on his own? As you are sitting calmly at a table or desk, feet up, relaxing while reading this article, you may easily see what needs to be done: Make sure that there's not anything in the chamber and/or the action, reload, and get back into the fight. Not so easy to figure out how/what to do in the dark, possibly in a severe amount of pain, and certainly with all sorts of rude people either trying to tell you what to do, or trying to make sure that you never do anything again. If you haven't trained on this enough to have it hammered into your memory, the chances of getting it right in a combat situation will be pure luck. (Doing this wrong can be very bad for your health even if nobody is actually shooting back. If there is an unexpended round in the chamber, and the shooter tries to load another round, there's an OK chance that the tip of the next round will strike the primer of the one in the chamber with enough force to make it discharge. There's a big warning paragraph in on page 3-4 of the FM about how bad this will be.)

TRAINING

Another Clint Smith axiom: Under stress, you will not rise to the occasion, but fall to the level of your training.

Unfortunately, the level of training for how to handle double feeds is inadequate. To give the authors of 3-22.9 credit, if you dig further down into "Corrective Action" for "Failure to Extract" and "Failure to Eject," they do give the correct order: "...the bolt and carrier must be locked to the rear. The magazine and all loose rounds must be removed before clearing the stoppage." The problem is that they give the wrong order to begin with, and that they've managed to bury the correct way to fix this so far down in the chapter that deciphering the correct response to a double feed requires that you know what to do already.

Here's how it should be trained:

Weapon does not fire:

1. Perform immediate action
(see TPRRRS above)

Weapon still does not fire:

2. Perform remedial action
 - a) Lock bolt to rear, relieving action spring tension. (This is the only time that the shooter's firing hand comes off of the pistol grip – and it goes right back after he gets the bolt locked)
 - b) Remove magazine. (This will hopefully cause all of the rounds that were causing our problem to fall out on the ground, but don't attempt to look into the chamber to see – we're training this so that it doesn't matter if you can see or not). (Do not attempt to retain magazine unless you are running very low! If we have a good extractor, there's a good chance that the magazine is what is causing our problems allowing multiple rounds to eject into the path of the bolt.)
 - c) Use non-firing hand to reach up magazine well with at least two fingers and feel for/remove any remaining rounds/brass.

- d) With non-firing hand, work action three times. (This will get rid of any rounds that are in the chamber – three times because sometimes the extractor won't grab the rim on the first try, especially if it's dirty).
- e) Insert new magazine, pulling down to make sure that it is properly seated.
- f) Work action.
- g) Shoot.

Weapon still does not fire:

Note: Do not attempt to move on to step three until out of contact with enemy

3: Perform maintenance:

See Task 071-311-2025, maintain M16 series rifle.

Step 2 can be accomplished in about 10-15 seconds, with a great deal of that time being used to actually get the new magazine from the pouch and loaded. Just like with TPRRRS, performing these steps requires no visibility and keeps the shooter's head up, not staring at his weapon. If the weapon can't be put back into action with these steps (assuming that he reloaded with a good magazine), something is physically broken (extractor, ejector, ruptured case in chamber) or the weapon is so filthy that it's not going to work right no matter what the shooter does. In either case finding another weapon or making himself useful in some other way (buddy aid, ammo redistribution, throwing hand grenades, whatever) would seem to be a better use of the shooter's time than disassembling his weapon in the middle of a firefight.

One final thought on training to clear malfunctions. The physical act must be trained with enough repetition to be performed without thinking. Unconscious competence is what this is generally referred to.

Having said that, remember that the decision to perform the task at all must be deliberate. In many circumstances it is better to do something else rather than try to fix a problem that may not be fixable at all. For example, there's always a chance that a Soldier's weapon is going to be hit by a bullet. It is after all right in front of his center of mass, where presumably the enemy is going to be aiming. A battle-damaged M4 with a hole in the receiver isn't going to work very well no matter how good the shooter is at performing immediate action. The Soldier needs to decide instantaneously what to do. What the criteria are for the decision should have nothing to do with what he thinks the problem is with his weapon, but with his own capabilities in the particular situation in which he finds himself.

As a general rule, we need to be training our Soldiers that if they are within contact distance (4-6 feet or so), they shouldn't mess around with a non-functioning weapon at all — take the one or two steps and go for the hand-to-gland combat that he spent all that time learning. Even if he doesn't have a bayonet attached, shoving the flash suppressor through his adversary's front teeth is way better than fooling around with immediate action at point-blank range.

What to do at close quarters battle (CQB) type distances is a little less cut and dried. From about three out to 25 meters the book answer would be to automatically draw a secondary weapon (pistol) and continue to engage the enemy without trying

immediate action. Unfortunately, the traditional infantry's view on pistols leaves most of us without a handgun with which to respond to the enemy in this range. Whether to retreat to cover while performing immediate action, charge the target (hoping the enemy has either such poor marksmanship that he misses, or such good marksmanship that all of his rounds hit our protagonist's SAPI plate) or drop to the ground and hope his teammates are on top of the situation must be decided in a split second. From 25-50 meters performing immediate action is generally called for, but not always. From 50 meters out, the decision is much easier — clear the malfunction and get back into the fight.

Weapon handling needs to be a well thought out and integrated part of marksmanship training and instruction. Modern high capacity autoloading firearms have taken emphasis away from what in the past was recognized to be just as important as the integrated act of firing. Picture Matthew Broderick's character in the film *Glory*, standing behind his Soldiers firing his revolver into the air as his one of his better marksmen attempts to reload his rifle on a training range. For every shot with a muzzle-loading firearm, an extreme amount of manipulation is required. Training on the task of "Load Springfield Rifle" was recognized as being just as important as being able to hit your target on the first shot. Soldiers needed to be able to perform this task under conditions of excruciating stress. An M4's ability to fire 28 rounds without having to manipulate anything other than the trigger has let us ignore what used to be blatantly obvious; that a Soldier's ability to get his weapon ready for a shot is just as important as taking the shot itself. Replacing SPORTS with a standard that can be trained to the level of unconscious competence, that can be performed day or night, and doesn't leave Soldiers hanging when it doesn't work will be a great step in the right direction. Relying on the old way, just because it was the way that we were taught and had hammered into us from repeated CTT and EIB testing is no excuse — leave SPORTS on ESPN where they belong.

Author's Note: *Even though I take full responsibility for the TPRRRS acronym, I cannot lay claim to having come up with the actual steps on my own. I am indebted to a number of great civilian firearm trainers including, but not limited to, Clint Smith, Louis Awerbuck, Pat Rogers, Giles Stock, and Steve Slawson for opening my eyes to the fact that there are better ways to do things.*

At the time of this writing, **Sergeant First Class James Couch** was assigned as the operations sergeant for the Department of Military Science, Southern Oregon University. He is a graduate of multiple "civilian" firearms training classes to include the Basic and Advanced Carbine, Basic Pistol, and Carbine Tactical Problems courses at Gunsite Academy; Urban Rifle from International Training Consultants, and Tactical Shotgun Courses from FAS and InSights Training Center. He shoots competitively in International Defensive Pistol Association (IDPA), U.S. Practical Shooting Association (USPSA), and National Rifle Association (NRA) disciplines. He is an honor graduate of ANCOC and distinguished honor graduate of BNCOC, both at the Henry Caro NCO Academy at Fort Benning, Georgia.

Fire Planning at the Company Level and Below

CAPTAIN JAMES R. SALOME

The King and Queen don't always speak the same language. Whether it is in the castle or on the battlefield, until they can communicate and learn to work together, they will not be effective. Fire planning at the company level and below is a challenge that infantry and artillery leaders have a difficult time overcoming. With the myriad of tasks that must be planned, rehearsed and executed, the detail required for a sufficient fire plan is often overcome by events.

Planning for indirect fire at the company level is not really that much different than planning how you are going to use your organic machine guns. Maneuver leaders should understand artillery as well as they know their machine guns' capabilities, constraints, and effective employment. In reality, effective use of artillery can be accomplished with better communication between the maneuver leader and the fire supporter.

Many maneuver commanders/platoon leaders do not use fires because they lack a real understanding of how to employ them.



Staff Sergeant Jeffrey A. Wolfe, USAF

A fire support officer eyes a strategic target on the horizon in Kirkuk, Iraq, during Operation Ivy Cyclone in November 2003.

In most of the educational institutions maneuver leaders attend, they are taught about the capabilities of the artillery available to support them. But characteristics such as range and the rate of fire are a very small portion of producing a good fire support plan. Fire supporters, be it a fire support officer (FSO) or forward observer (FO), and maneuver commanders sometimes speak two different languages. A perfect example is when an FO or FSO is told he needs to "destroy" a light-skinned vehicle on the objective during an attack. He knows the maneuver leader outranks him, and that leader has experience that exceeds his own, but does the leader understand that it will take more than 50 rounds to "destroy" a light-skinned vehicle? The FO may come back telling the commander that his nominated targets were denied because of the excessive rounds requested. The fire supporter may not understand how to effectively communicate the fire plan to the maneuver leader.

Effective communication and development of the fire support plan has three primary pieces that inhibit its effectiveness. First, the clear communication of intent by the maneuver leader to the fire supporter is essential in the development process. Second, the effective use of time during a condensed planning process ensures the plan is completed. Finally, a clear and simple dissemination of the plan to those who will execute it completes the communication process from commander's intent to observer implementation. Understanding these problems, and developing simple techniques to prevent them, will aid in developing an adequate fire plan.

A portion of this misunderstanding is the leader's inability to clearly communicate how he wants the fires used, coupled with the inability of the FSO to communicate how to use them. Many of the terms exchanged between the two as they develop a fire support plan are not clear in terms of intent. And while the maneuver leader thinks he understands exactly what he's asking for, he must ensure that what he is communicating is what he expects to see on the objective. This is particularly difficult in a time-constrained environment.

Commanders at the company level are not afforded the luxury of time while planning, especially at the combat training centers (CTCs). This only serves to increase the probability that the fire support plan is not given sufficient attention. This frequently takes the form of a commander or platoon leader giving an FO a route and the objective, mentioning some smoke at a breach site, and sending the fire supporter away so he can finish his plan. Fortunately, many fire supporters are able to sort out the little guidance they were given and come up with a decent fires plan. This plan, however decent, may not be effective or responsive and

leads to maneuver leader frustration with the fires assets. The root of this frustration is a lack of proper planning.

While it may appear that time is the answer in developing a detailed, effective fire support plan, the reality is that better communication is the solution. Communication is key not only on the part of the maneuver leader to the fire supporter, but also from the fire supporters to the observers that will execute the plan. If observers do not clearly understand their role in executing the plan, the quality of the planning is irrelevant. Commanders and fire supporters must work hand in hand to determine the best use of the assets available.

Developing the Plan

The maneuver leader at the company level and below does not have a staff to help him see the battlefield clearly; fortunately the FSO is there to fill that void. As the leader develops a course of action, he should use the FSO as a sounding board for his ideas. The FSO must be with the CDR as he develops his maneuver plan to understand how he sees the events unfolding and why. As the leader thinks out loud during course of action (COA) development, the things he chooses not to do are just as important as those finally decided upon. The understanding of intent gained by cooperative planning will provide the FSO the information he needs without forcing the commander to focus his thoughts on things like the definition of destroy, neutralize, and suppress. A clear understanding of the commander's intent will help him develop a plan that supports maneuver from beginning to end.

As a commander talks through his maneuver plan, he identifies key events that must occur in order to maintain momentum. The FSO participates in this exchange of ideas and then develops them into essential fire support tasks (EFSTs). Those are nominated as targets to the BN FSO, as part of the bottom up refinement process. This process of target development takes advantage of time through what is essentially parallel planning. If the commander and the FSO discuss the targets, along with what the desired effects are at each critical point in the battle, the quality of the fires plan is significantly increased. The nominated targets are

thought through and well integrated with the maneuver plan. However, targets nominated at the company level are not always approved at the battalion level. What comes back from higher may be less than what is needed to execute all of the targets nominated, and this may affect the course of action.

Maneuver leaders should not expect to always get every asset on the battlefield and should develop plans that are not dependent on the success of fire support to reduce an objective. Leaders must understand that there are not unlimited supplies of ammunition, even when they do have priority of fire. A maneuver commander plans how his machine gun ammunition will be used to the last round, ensuring he can place effective fire at the proper place and time to support his maneuver plan. From a fire supporter's perspective, every round is accounted for and targeted before the fight ever begins. This results in decisions above company level that limit the fire support available to facilitate the company commanders concept of the operation. Targets nominated do not always equal targets supported. If all of the targets are not supported, this does not necessarily mean decreased flexibility, but it does mean you and your FSO have some work to do. Once you have approved targets, you must ensure that they will support your plan. Targets will be easy to manipulate when an effective fire support plan was developed. The FSO will know where the commander's priorities lie and adjust the plan to best support the commander's intent.

Completing the Plan

Regardless of the number of rounds approved, whether it be eight or 80, the commander and FSO must decide how to employ the rounds effectively. When fewer rounds are allotted, greater care should be given to their employment. Commanders should know exactly when and where the rounds will land and ensure they are directly integrated with the direct fire plan. The command team must determine together how responsive the fires need to be and then figure out what needs to be done to achieve that responsiveness. Coordination measures such as trigger lines, phase lines, and selective observation post placement will ensure effective and efficient round usage. Additionally, the

commander must understand the right questions to ask in order to ensure fires meet his intent. Likewise, fire support officers must know the right answers to give. Effective communication is critical to making the process work.

Commanders should ask questions like:

How many rounds do I have and how long can I make them last?

How many "destroy" missions does that give me?

How many minutes of smoke do I have?

If I don't have enough ammunition, how can I make the enemy think I'm pounding them with an adjusted rate of fire?

Do I need to adjust my COA in order to mass effects at the right place and time?

Is the priority of fire simple enough for everyone to understand?

Who is the observer for each target? Is he moving or stationary?

Are you prepared to brief the observers in the OPORD?

Will you have them backbrief you?

Have we planned in flexibility what is our backup plan?

Commanders should give answers like:

This is the most important thing to me.

I want obscurity here. I want it to last this long.

I want this many rounds at this point in time because the breach is being set-in.

I want the FO to be able to see the lead man during movement.

I want the FO forward with this squad where he can see the best.

FSO/FOs should ask questions like:

Where are we most vulnerable?

Can I provide fires to mitigate that risk?

What is the rate of movement?

What key terrain along our route will fires easily be adjusted from?

Where is the decisive point?

Where do you expect enemy reinforcements to come from?

How do you want me to inform you of changes or updates during the attack?

Where do you want me during the attack?

FSO/FOs should give answers like:

You have this many "destroy" missions.

You have this many "disrupt" missions.

The observer is SGT Smith, he is located with 1st Squad, and these are his actions.

You will have eight 81mm rounds from phase line green to phase line red. We have this many rounds of this type for a counterattack.

Communicating the Plan

Once the fire support plan is developed, coordinated and approved, it must be communicated to those who will execute it. If it is not communicated effectively and rehearsed, it will not be worth the time put into it.

Many times the FSO briefs the fire support plan by briefing information that is not applied directly to its use during the fight. A platoon leader does not want to be read a matrix; he wants to hear exactly how the fires will help him. The FSO should of course brief the fire support execution matrix and cover the task, purpose, method, and effect of each target. But he should also cover who is responsible for observing each target, and who provides security for that observer so he can do his job. While doctrine dictates there are certain things the FSO or FO can use as guidelines to help them communicate, he has to determine how to best communicate the fires plan to those who must execute it. The plan can be easily communicated in the form of rehearsals.

Fires rehearsals are not normally conducted at the company level unless the fires plan is very complex. However, rockdrills and terrain models are commonly used at the company level for rehearsals. The FSO and FOs must participate actively in these rehearsals. The FSO/FO should, at a minimum, ask some very crucial questions during the company rehearsal. Key observers must be present and participate in the rehearsal to ensure they understand how important their job is to the success of the unit's mission.

The FSO/FO should ask questions like:

Does the observer understand his engagement criteria; is it based on him or the enemy? Is it simple?

Have you allowed the observers to check their OPs?

Have you checked all of your OPs?

At what point exactly do we need to lift our indirect fires?

And make statements like:

This is what I need to know and when I need to know it.

I need you to show me where your triggers are on the ground.

Make sure you check with me that I have shifted the fires before you cross phase line X.

Recommended Training Solutions

How can we train these habits in peacetime to make them second nature in combat?

Some of the obvious solutions are things like platoon and company combined live fires. These are the perfect training forum for teaching fires planning and execution. Another excellent tool is to use commander/FSO tactical exercises without troops (TEWTs) to rehearse the timing and movements as they relate to minimum safe distances (MSDs) or risk estimate distances (REDs). The ability of the leadership to understand where they will be on the ground, or where their lead element will be, enhances their understanding of when they must initiate fires or make adjustments. A march and shoot live fire for leaders coupled with



Staff Sergeant Joseph Roberts

Specialist Wayne Hutchinson, a forward observer from the 1st Infantry Division, paints a target during a live fire exercise in Iraq.

a TEWT is the ideal combination when an actual combined arms live fire is not possible.

When no live rounds are available, consider using the TSFO or GUARDFIST with both the maneuver leader and the fire supporter to train the intricacies of indirect fire support.

Additionally, qualifying company commanders and platoon leaders on some of the tests required for their FIST elements will greatly enhance their understanding of the specific language spoken by fire supporters. Just as they practice with machine guns to understand the job of their machine gunners, they should also know and understand the skills required of their fire support officers.

Planning for indirect fires at the company level is difficult and time consuming. Commanders and FSOs must acknowledge the challenges associated with fire planning and determine ways to overcome them. Better communication starts at the very beginning of the planning process. By developing the plan together the fire supporter will gain a clear understanding of the commander's intent. This results in EFSTs that are closely tied to the maneuver plan. A well-integrated, prioritized fires plan increases the maneuver commander's flexibility, even if he does not get all of the assets he requests. A fires plan that is synchronized with the maneuver plan will make sense when effectively communicated to those who will execute it. Clear communication, combined with quality back briefs and challenging rehearsals, will result in a fire support plan that is understood down to the lowest level and ultimately well-executed.

Captain James Salome is currently a student at the Command and General Staff College at Fort Leavenworth, Kansas. He is a 1994 graduate of the United States Military Academy. He has served as a platoon leader and staff officer in 1-325 Airborne, 82d Airborne Division; a company commander and staff officer in 1-508 Infantry, 173d Airborne Brigade; and a company commander in the 5th Ranger Training Battalion.

Fire and Maneuver Effects

WILLIAM F. OWEN

Fire and maneuver effects (FME) are the effects you seek to subject an enemy to as a result of either actual or threatened use of weapons and movement relative to your adversary. Correctly understood and applied, they can defeat any enemy in any type of conflict or even law enforcement scenario.

While it is possible to identify a whole myriad of effects that fire and maneuver may create, it is really only useful to focus on four. These are:

- Surprise
- Shock
- Suppression
- Isolation

Before we examine each in detail, it is essential to understand the following common characteristics of each. They are all psychological. They cannot be applied against anything or anyone that is not fundamentally human. You cannot shock and surprise anything inert.

All these effects are temporary, and none are absolute. What works once may not work again. The defining aspect of their effectiveness is how well they are applied. In very simple terms, it does not matter what you do to an enemy, as long as it is surprising, shocking, and suppresses and isolates him. Nor are all four effects required. Any one of the effects, sufficiently applied, is enough to create defeat.

It is also vitally important, that troops learn how to inoculate themselves against FME. This should be constantly emphasized through coherent logical training. There is little point in teaching someone that good defense requires 360 degrees of observation to guard against being surprised, and then on another exercise informing them that the enemy will be coming from a specific direction.

Surprise

Surprise is caused by unpreparedness for combat. This unpreparedness has three defining characteristics in that an enemy may be unprepared for combat by virtue of the following:

Time: The enemy does not expect to be attacked at the time that it occurs. Thus, his readiness to engage in combat is low. He may be sleeping, conducting maintenance or engaged in some activity that reduces his capability to fight.

Direction: The enemy does not expect an attack from that direction. He may well have been prepared for combat, but he expected the attack to come from a different direction.

Nature: The enemy is expecting to be attacked, but he is unprepared to face an attack of the kind launched. It is either by far larger numbers than he expected, or he is facing equipment such as tanks and artillery that he did not expect to encounter.

Surprise leverages combat power like no other effect. It is perfectly possible for a section or squad to route a company or even battalion, and military history is full of such examples. The critical aspect of surprise, as with all FME is that it is temporary and can be quickly recovered from.

As previously mentioned, troops must be taught how to prevent themselves being surprised, either in time, direction or nature. The key to this is information, in that there must be continuous effort to conduct observation and surveillance, to protect one's own troops from attack.

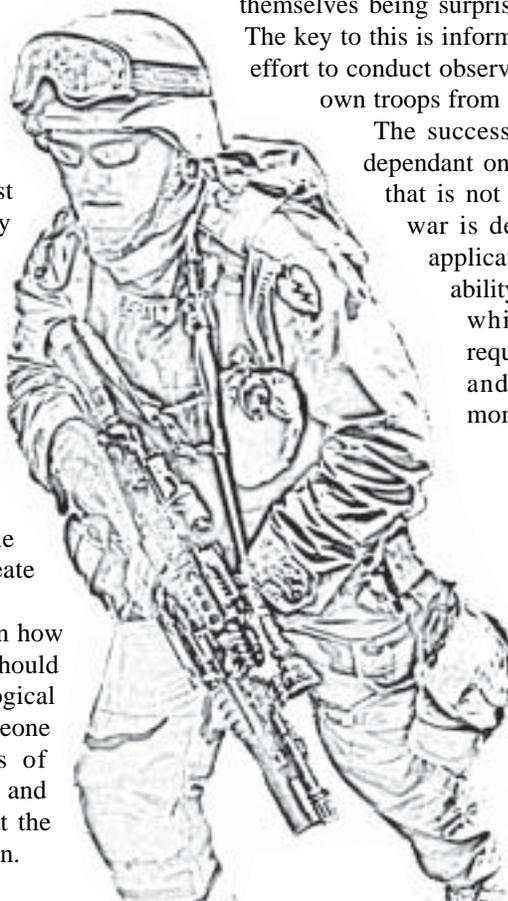
The successful application of surprise is usually dependant on making the enemy believe something that is not true. The Sun-Tsu statement that "all war is deception" is essentially true, and the application of surprise is reliant on this. The ability to maneuver to a position of advantage, while remaining undetected, is a key requirement in gaining surprise, as is swift and decisive action, at an unexpected moment.

Shock

Shock is very closely related to surprise, but also distinct from it. What is surprising may not be shocking and vice versa. Shock is characterized by the victim's inability to process information and therefore make coherent rational decisions leading to effective action. It can affect individuals and organizations equally, and often with catastrophic results.

The inability to process information comes from fear, and fear comes from real or perceived danger. The most likely thing to cause shock is a rapid accumulation of casualties or equipment loss. A platoon can lose eight men over a week, and not suffer shock. The loss of all eight men in a mine explosion will almost certainly cause shock to the platoon, especially if that mine, was used by the enemy to trigger an ambush.

However, it is not wholly accurate to suggest that shock is purely a function of casualty rate. Fundamentally, shock comes from the belief that you are suffering casualties, regardless of the actual truth. The inability to collect accurate information as to the actual situation will further compound that belief. Most human beings



deprived of critical information, will either freeze, as in being unable to act, or act irrationally, as in running away.

Drills are often seen as helping inoculate troops against shock. That is, troops carry out a set of action as an automatic response to a threat. While this may have some merit, it is equally possible that it may compound the error, especially if the enemy is aware of the likely drilled response. An example of this is the teaching in some armies that if ambushed, troops should automatically assault into the enemy ambush. Obviously, such a response is easily countered and is usually accounted for.

Shock is best applied through the use of speed, both in terms of movement and engagements. Once engaged, the faster you can move and/or inflict casualties the greater the likelihood is that you will inflict shock on your enemy. Obviously, you can apply shock from a static position, but your ability to exploit or maximize the effect is limited.

Suppression

Suppression is the lack of action caused by the desire to avoid harm. Primarily it is often associated with an effect created by direct and indirect fire, in that Soldiers quite literally do not move or shoot back because they fear injury or death from incoming fire. The whole premise of fire and maneuver is predicated on suppression. However there are two distinct forms of suppression and both need to be understood.

Active suppression is the use of fire to prevent an enemy from conducting an activity. That is usually that it prevents him from either firing or maneuvering. The fire can be direct or indirect. The fire is applied in the appropriate volume to suppress the enemy, while another activity is carried out. Here, two important things need to be noted. First, there is no point in suppressing an enemy unless you are doing something else as well, be it maneuvering against him, withdrawing, and/or resupplying. Shooting at him for no reason is pointless and wastes ammunition. Second, suppression is purely a function of belief that a weapon can do harm, so it doesn't really matter if you are firing 5.56mm or 7.62mm as long as the enemy will take cover and not shoot back. In WW2, the Wehrmacht used 9mm to suppress very effectively. A 60mm mortar

bomb can suppress as well as a 81mm can. If the enemy is suppressed, he can't shoot back; then you are free to maneuver against him.

The other form of suppression is passive. This is the actual or threatened punishment of activity. "Stop or I'll shoot," is passive suppression and implicitly the *raison d'être* of every weapon ever built. Weapons are not solely meant to kill. They aim to coerce human beings into a course of behavior. Understanding passive suppression is vital. Pointing your weapon at enemy who are surrendering is passive suppression, as is the open carriage of arms by policemen.

One sniper can suppress four men in a trench if each time they try to look out they are shot at. More importantly, whole units can be passively suppressed if they fear that any activity on their part will reveal their presence and thus invite attack. Thus, passive suppression can be delivered purely by observation and without the use of fire!

Isolation

Suppression can create isolation. The aim of isolation is to subject the enemy to the belief that he has no assistance, supply, or rescue. The only way he will survive, or get aid for his comrades, is to surrender. Human beings are naturally gregarious, and warfare is a group activity. It requires numbers of men. Furthermore, we know that the vast majority of human beings derive a great deal of courage and comfort from other human beings. How else would the serried ranks of Napoleonic infantry advance into the guns of another army? By depriving groups of Soldiers from those things they both need and desire to continue to mount a resistance, you can effectively break the will and cohesion needed to fight. Military history abounds with examples of large numbers of men being captured, purely by virtue of having been surrounded, or in some cases believing they had been surrounded, when in fact they had not.

On 23-25 April 1951 in Korea, the 1st Battalion, the Gloucestershire Regiment, fought hard and bravely on Gloucester Hill in Korea. Casualties were 59 dead, 180 wounded and 526 prisoners. Effectively, the whole battalion was killed, wounded, or made prisoner.

On 21 March 1918, the 16th Manchesters in the Manchester Redoubt

suffered 73 dead, about three times that wounded, and the whole battalion, with a reported strength of about 700, made prisoner.

On 30 January 1944, the 1st and 3rd U.S. Army Ranger Battalions were surrounded during a failed infiltration at Cisterna di Latina in Italy. After heavy fighting, only six men out of 767 managed to escape. While the number of dead and wounded was significant, it is estimated that more than 500 were captured.

Why is this? Simply, most people's will to live is very strong, and in most cases, stronger than it is to die. Surrendering or withdrawing are all ways of prolonging life.

In almost every major battle in history, far more men have surrendered or run, than been killed or wounded. Obviously, there are exceptions to this, but their notoriety is almost certainly born from the fact that they are unusual; the last stands of Custer at Little Big Horn and the Spartans at Themoplye being two well-known examples. It is worth noting that in both these cases, that the commander of the annihilated force was physically present, and that both actions were part of a larger action. It is commonly suggested that in both cases, all fought to the death partly because of the presence of their commander, and also because the act of surrender was physically impossible because of the proximity of the combat, and thus individual acts of surrender could not happen.

The primary purpose of fire and maneuver is to create these effects on the enemy, and just as importantly, it helps to understand that the enemy will seek to subject you to the same effects.

The skill of any unit will be how well they apply these effects relative to the enemy they are facing.

It is also critical to understand that these effects can be applied in any type of operation, be it all out war or peacekeeping, and can, under exceptional conditions, result in the enemy being defeated without a shot being fired!

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village. We took advantage of this and slipped out of the encirclement through the southern gap and fled to Kot-e Ashro through the mountains. One of my Mujahideen was wounded.

DISCUSSION

Given the size of the force involved and relatively limited firepower that the Mujahideen had at their disposal, it should have been possible to effectively cordon off and kill or capture the guerrillas, instead of what actually took place. The DRA was too weak to adequately secure the cave in which the insurgents had taken shelter; the one soldier assigned the task had no backup and no means of calling for reinforcements.

The cordon itself had reinforcements which could serve as reserve, strengthen weak spots in the cordon, or move aggressively to seize the opportunity offered. As a result, the Mujahideen were fixed in position until past midday armed with only rifles and one RPG. During the duration of the standoff, the rebels could move about relatively unimpeded without the DRA knowing either their true strength or their locations at any given time. Poor intelligence, particularly HUMINT, hampered any decisive action, until another Mujahideen unit opened fire to break the encirclement and allow their sister unit to escape.

The encircling DRA force lacked aggressiveness, partially because of poor intelligence, and partially because it consisted of poorly trained soldiers who had been fighting that day-in-day-out, protracted, enervating war against a more highly motivated and more aggressive adversary for years. The DRA forces were in need of replacements, but seldom got them, and the guerrillas were fully aware of the personnel, logistical, and morale problems facing the DRA.

Today, we employ air mobility assets to quickly capitalize on opportunities such as those described in the vignette, and commit sufficient forces to a cordon operation to make sure we can react quickly and decisively once the enemy has been identified and his location determined. In any operation such as this, a commander also needs to aggressively develop his HUMINT capabilities to effectively monitor enemy movements, logistical activities, and likely courses of action.

BOOK REVIEWS



Gerhard von Scharnhorst. Private und dienstliche Schriften. Band 1, Schueler, Lehrer, Kriegsteilnehmer. Kurhannover bis 1795. (Gerhard von Scharnhorst. Private and official correspondence. Student, Teacher, Warrior. From Hannover to 1795.) Edited by Johannes Kunisch, compiled by Michael Sikora and Tilman Stieve.) 864 pages, occasional sketches, index, and glossary. Reviewed by Christopher Timmers.

When those of us with any knowledge of German/Prussian army history think of Gerhard Johann David von Scharnhorst (or just Scharnhorst), we think of a brilliant man whose writings and efforts helped reform the Prussian army in the wake of the disastrous defeats at Jena and Auerstadt in 1806. But this volume of private and official correspondence covers only the first 40 years of his life, well before his reforms had made their mark and he had achieved the renown that would lead to his elevation to the rank of lieutenant general and grant of nobility from the King of Prussia.

In these 471 letters, we see close up young Scharnhorst as a cadet at the Wilhelmstein academy and a detailed listing of his course of instruction (from 1773 – 1777), a curriculum which included classes dealing with shipbuilding and principles of gunnery (both of which were drawn from English texts published in 1754 and 1742). Among the letters in this first volume are over 50 addressed to his fiancée and (later) wife Klara (nee: Klara Schmalz, whose brother Theodore was the first director of Berlin University). Letters to Klara are affectionate and frequently long. One, written in July of 1793 begins: “Don’t write me such short letters, my love, my only wife; for it is better to not write at all.” Scharnhorst’s letters to Klara are long, involved, and deal with many of the issues separated couples encounter in any dislocation.

Somewhat humorously, the greetings to men of high rank strike one as almost dickensian in their formality:

“Hochgeborner Reichsgraf Gnaedigster

Landesherr!” Oh Highborn Imperial Count Esteemed Governor (my loose translation).

And his farewells equally recall Dickens: “Ew. Hochgraeflichgnaden Unterhaenigster Knecht” Your highest esteemed count, I am your humble and obedient Servant (again, my somewhat free translation).

Scharnhorst is remembered as an army reformer, who, among other achievements, advocated and secured the admission to the officer corps of men drawn from other than the ranks of nobility. His years of service to Prussia in opposition to Napoleon can arguably be his most interesting, but these years are not covered in this first volume. Nonetheless, these letters and official correspondence shed light on a man, not an icon, who has been a fixture in western military thought for over 200 years.

One final note to those who wish to approach this work in the original German: Much of the phrasing and many of the words in German are from 200 years ago. I would ask you to think of the ease of translation from the English of many of our country’s founding documents into contemporary German. The task, I submit, would be more difficult than is apparent. Much of Scharnhorst’s correspondence relies on an older vocabulary and syntax, which is not currently accessible in present day German. Even if you regard yourself as fairly fluent in German, be advised that this volume will probably present you some problems in translation. But the results will be well worth your efforts. I would like to acknowledge the translational help of Ms. Martina Abel whose help with archaic German phraseology was indispensable.

Escape!!! The True Story of a World War II P.O.W. the Germans Couldn’t Hold. By John M. “Jack” Roberts Brundage Publishing, 2003, 237 pages, \$23.95. Reviewed by Randy Talbot.

village. We took advantage of this and slipped out of the encirclement through the southern gap and fled to Kot-e Ashro through the mountains. One of my Mujahideen was wounded.

DISCUSSION

Given the size of the force involved and relatively limited firepower that the Mujahideen had at their disposal, it should have been possible to effectively cordon off and kill or capture the guerrillas, instead of what actually took place. The DRA was too weak to adequately secure the cave in which the insurgents had taken shelter; the one soldier assigned the task had no backup and no means of calling for reinforcements.

The cordon itself had reinforcements which could serve as reserve, strengthen weak spots in the cordon, or move aggressively to seize the opportunity offered. As a result, the Mujahideen were fixed in position until past midday armed with only rifles and one RPG. During the duration of the standoff, the rebels could move about relatively unimpeded without the DRA knowing either their true strength or their locations at any given time. Poor intelligence, particularly HUMINT, hampered any decisive action, until another Mujahideen unit opened fire to break the encirclement and allow their sister unit to escape.

The encircling DRA force lacked aggressiveness, partially because of poor intelligence, and partially because it consisted of poorly trained soldiers who had been fighting that day-in-day-out, protracted, enervating war against a more highly motivated and more aggressive adversary for years. The DRA forces were in need of replacements, but seldom got them, and the guerrillas were fully aware of the personnel, logistical, and morale problems facing the DRA.

Today, we employ air mobility assets to quickly capitalize on opportunities such as those described in the vignette, and commit sufficient forces to a cordon operation to make sure we can react quickly and decisively once the enemy has been identified and his location determined. In any operation such as this, a commander also needs to aggressively develop his HUMINT capabilities to effectively monitor enemy movements, logistical activities, and likely courses of action.

BOOK REVIEWS



Gerhard von Scharnhorst. Private und dienstliche Schriften. Band 1, Schueler, Lehrer, Kriegsteilnehmer. Kurhannover bis 1795. (Gerhard von Scharnhorst. Private and official correspondence. Student, Teacher, Warrior. From Hannover to 1795.) Edited by Johannes Kunisch, compiled by Michael Sikora and Tilman Stieve.) 864 pages, occasional sketches, index, and glossary.
Reviewed by Christopher Timmers.

When those of us with any knowledge of German/Prussian army history think of Gerhard Johann David von Scharnhorst (or just Scharnhorst), we think of a brilliant man whose writings and efforts helped reform the Prussian army in the wake of the disastrous defeats at Jena and Auerstadt in 1806. But this volume of private and official correspondence covers only the first 40 years of his life, well before his reforms had made their mark and he had achieved the renown that would lead to his elevation to the rank of lieutenant general and grant of nobility from the King of Prussia.

In these 471 letters, we see close up young Scharnhorst as a cadet at the Wilhelmstein academy and a detailed listing of his course of instruction (from 1773 – 1777), a curriculum which included classes dealing with shipbuilding and principles of gunnery (both of which were drawn from English texts published in 1754 and 1742). Among the letters in this first volume are over 50 addressed to his fiancée and (later) wife Klara (nee: Klara Schmalz, whose brother Theodore was the first director of Berlin University). Letters to Klara are affectionate and frequently long. One, written in July of 1793 begins: “Don’t write me such short letters, my love, my only wife; for it is better to not write at all.” Scharnhorst’s letters to Klara are long, involved, and deal with many of the issues separated couples encounter in any dislocation.

Somewhat humorously, the greetings to men of high rank strike one as almost dickensian in their formality:

“Hochgeborner Reichsgraf Gnaedigster

Landesherr!” Oh Highborn Imperial Count Esteemed Governor (my loose translation).

And his farewells equally recall Dickens: “Ew. Hochgraeflichgnaden Unterhaenigster Knecht” Your highest esteemed count, I am your humble and obedient Servant (again, my somewhat free translation).

Scharnhorst is remembered as an army reformer, who, among other achievements, advocated and secured the admission to the officer corps of men drawn from other than the ranks of nobility. His years of service to Prussia in opposition to Napoleon can arguably be his most interesting, but these years are not covered in this first volume. Nonetheless, these letters and official correspondence shed light on a man, not an icon, who has been a fixture in western military thought for over 200 years.

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Escape!!! The True Story of a World War II P.O.W. the Germans Couldn’t Hold. By John M. “Jack” Roberts Brundage Publishing, 2003, 237 pages, \$23.95. Reviewed by Randy Talbot.

As the current military looks for the “lessons learned” and heroes of past conflicts to draw inspiration and leadership examples for a new generation of war fighter, they should consider the poignant lessons of “Jack” Roberts and the 106th Infantry Division.

The story of the 106th Infantry Division during the Battle of the Bulge is well known by scholars of military history. Activated in 1943 by green recruits, the division was sent overseas after losing nearly 60 percent of its experienced and trained Soldiers due to unit replacement policies in World War II. Roberts entered Belgium with only one other original member of the division in his section.

Sent to a “quiet” sector of the line to relieve the 2nd Infantry Division (Captain Charles B. MacDonald), they would occupy a defensive position of nearly 25 miles, “more than three times as much territory” assigned an infantry division. After five days, and a mere 10 days after arriving in country, Jack Roberts and the boys of the 106th took the full force of the German attack. After nine days of fighting, the 106th Division lost more than 60 percent of its fighting force in killed, wounded, and missing. Following the battle, they returned to the rear, never to see action again.

Preparing for their first mission, Roberts and his forward observer section prepared to move to the town of Roth on December 16, 1944. Soon after leaving their compound, the small two-vehicle convoy was attacked by the 290th Regiment of the 18th *Volksgrenadier* Division, the lead elements of the German attack. With impeccable archival research, numerous trips to the area of his capture and assistance by local Belgium and German researchers, Roberts has recreated one of the most horrific experiences any Soldier can live through. Easily readable, Jack takes us through the terror of the ambush, watching his best friend get killed in front of him and now being responsible for the counterattack and eventual surrender of his small force to save their lives. He takes us through the terrifying decisions he had to make; struggling between his faith and killing another human being, the decision to attack and then surrender, his motivation in escaping from the Germans, and his decision to take his remaining Soldiers back to the 106th out of loyalty to the unit.

Roberts does not describe himself as a

hero. He is naive in the ways of the world, a typical teenager growing up in a typical town in America. He was the ticket taker at the local theater as he worked his way through high school. In fact, Roberts is the epitome of the troops that Steven Ambrose popularized in his World War II books about “citizen Soldiers.” And like many families in the 1940’s, Jack and his brother waited for their call to war. Jack’s call came in 1943, and within a year, would find himself in the middle of one of the greatest battles of World War II fighting, getting captured, and then escaping only to fight again.

Jack’s story follows a new genre of memoir literature from these veterans, one of openness and candor about the realities of war. *Escape!* is a highly personalized account of frailties and fears, loyalty and determination, all based in a strict family life of discipline, togetherness, and faith. At times humorous and at other times terrifying, Roberts allows us into his life, to see the horror of combat through his eyes, the uncertainty of escape, the jubilation with being reunited with his comrades, and the sadness of personal loss of close friends.

While recent literature on the Battle of the Bulge highlights large unit combat, *Escape!* tells an hitherto untold account of small unit combat in the opening actions against the 106th Infantry Division. Roberts’ book fills a void in World War II literature chronicling that attack and small unit leadership in combat, and been a welcome addition to MacDonald and Eisenhower’s works on the Bulge.

Each new book on World War II forces us to ask, “Is there anything else to learn about this war?” The answer is always “yes.” Written before the current conflict in Iraq, the lessons of the “Golden Lions” shows the deadly result of sending a partially trained unit into combat. Additionally, it also shows how intelligence failures impacted a group of “green” Soldiers heading into combat.

The Great War: Perspectives on the First World War. Edited by Robert Cowley. New York: Random House, 2003. 509 pp. \$29.95. Reviewed by Lieutenant Colonel Harold E. Raugh, Jr., U.S. Army Retired.

The echoes of World War I, fought almost a century ago, continue to be heard

to the present day. World War I — called the Great War by the British — was a watershed conflict, ushering in an era of total war and planting the seeds of World War II and the Cold War. It propelled the United States from being a minor country to a major player on the international stage. World War I also caused the demise of dynasties and empires, which released the evil spirits of ethnic strife and internecine warfare, seen most recently ravaging the Balkans and Middle East.

His volume is an anthology of 30 World War I-related articles culled from the pages of *MHQ: The Quarterly Journal of Military History*. These 30 essays are grouped together into five main sections, excluding the “Prologue” and “Aftermath,” each containing one essay. These five main sections are “Deadlock” (seven essays); “The Naval War” (four essays); “A World at Arms” (four chapters); “The First Air War” (three chapters); and “Tipping Points” (10 essays). A number of essays are about Western Front topics, and others cover (in addition to naval and aerial topics) such as the lesser known “peripheral” campaigns at Gallipoli, Salonika, and Kut, Mesopotamia — the latter in present day Iraq.

All of these essays, intended for the popular history reader, are informative as well as entertaining. Some of the essays are worth mentioning individually. Bruce I. Gudmundsson concentrates on the German-French engagement at Bertrix, one of seven division-sized battles during the German offensive in August 1914. The Christmas Truce of 1914, acts of spontaneous peace and fraternity that took place in the trenches near Ypres, is described poignantly by Stanley Weintraub. The First Battle of the Falklands, chronicled by Ronald H. Spector, took place between naval forces in December 1914 and “ended in a sweeping [British] military success.” Tim Travers based his essay, “Gallipoli: The Other Side of the Hill,” on research conducted in Ottoman military archives. The author of more than 40 books, Thomas Fleming writes a short biography of General John J. Pershing and assesses his military leadership in “Iron General.”

This collection of well-written and interesting essays on World War I topics, frequently conveying a sense of immediacy as well as considered analyses, provides interesting perspectives on various aspects of the “war to end all wars.” It deserves a wide readership.

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