

Field Artillery

A Professional Bulletin for Redlegs

July-August 1999

Into the Ia Drang

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Front Cover: Several battles were fought in the Ia Drang Valley in the Central Highlands in 1965 that changed the War in Vietnam. The first was the battle of Landing Zone X-Ray fought by Lieutenant Colonel Hal Moore, commander of the 1st Battalion, 7th Cavalry—shown on the cover as Colonel Moore, brigade commander, also in the 1st Cavalry Division in Vietnam. Later as Lieutenant General Moore (Retired), he co-authored the book *We Were Soldiers Once...and Young*.

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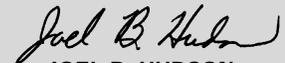
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Field Artillery History: Elements of a Trajectory

If the Field Artillery had a historical “trajectory,” along its arc would be many points at which revolutionary change has occurred: the introduction of massed fires and development of the fire direction center (FDC)...introduction of missiles and rockets into the FA arsenal...and replacement of forward observers (FOs) with fire support teams (FISTs). Understanding the significance of these points of change, the situations behind them and the reasoning for their adoption reassures us as we continue to change the way we do business in the future.

Massing Fires and the FDC. The concept of massing fires is fundamental to Field Artillerymen today, but it was not so obvious 130 years ago. At the beginning of the Civil War, both Union and Confederate forces used cannons as large-bore, long-range rifles—gunners shot directly at individual targets visible from their positions. But, eventually, as the Union learned at Malvern Hill and the Confederates at Antietam, massed artillery at the right place at the right time would carry the day. However, the Army failed to capture this important lesson, so the Spanish-American War saw Redlegs again employing direct fire at targets.

By World War I, the range of artillery had improved to where indirect fire became possible; however, our organization did not adapt well to the concept. FOs performed all technical fire direction, requiring the observer to see both the target and firing unit. The limitations are now obvious: observers could control only one firing unit effectively and observations posts were far from ideal locations to compute technical fire direction. Any massed fires usually were rolling barrages controlled by inflexible schedules that frequently caused fratricide. World War I artillery fires were fairly inaccurate, often unobserved and not massed effectively, but the lessons learned from that conflict allowed us to step forward and make the FA the primary coordinator of massive firepower rather than simply another contributor of ordnance—a revolutionary change.

In 1929, Fort Sill’s Gunnery Department contemplated issues identified by Lieutenant Colonel Neil Fraser-Tytler, British Royal Artillery, in his book *Field Guns in France*. Two of his conclusions—unobserved fires are largely ineffective and coordinating fires with maneuver forces is vital—became the impetus for a series of trials resulting in the genesis of the FDC by 1934. At this point in our historical trajectory, Redlegs could mass battalion, division artillery and FA brigade fires. During World War II, General Douglas MacArthur described the results in a radiogram on 11 March 1942, “The strong effect of massing artillery fire, using the fire direction center connected with all observation posts available, has been proven beyond question.” More revolutionary change.

Rockets and Missiles. After World War II when the FA absorbed both the Coastal and Air Defense Artillery branches, we inherited missile experimentation based on Germany’s V2 rocket technology. We began to develop guided missiles and rockets in the late 1940s to increase the range of our general support units and provide an alternate delivery method for atomic weapons. This historical point along our trajectory launched the FA into the nuclear age with the development of the Honest John rocket.

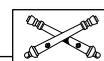
Major General J. L. Homer described the importance of guided missiles in his November 1947 *Military Review* article “Guided and Future Warfare” when he said, “If you are planning the grand strategy for tomorrow’s war, you must consider seriously the impact of guided missiles....It is apparent that this weapon may be developed to strike any portion of the globe from any geographical position.” This marks another revolutionary change.

Though the FA no longer fields nuclear-capable Lance and Pershing missiles, our Army tactical missile system (ATACMS) and multiple-launch rocket systems (MLRS) provide today’s combined arms commanders extraordinary battlefield-shaping tools.



FO to FIST. In 1975, Major General David E. Ott, Commandant of the FA School, upgraded forward observation for two reasons. During the Vietnam War, maneuver units did not have organic observers so they often had only untrained observers to call-for-fire, and the Army was struggling with dire personnel shortages while trying to field separate FO teams for each fire support asset on the battlefield. What began as a solution to a personnel problem and an attempt to counter Soviet-style tactics became a historical trajectory point that revolutionized our role on the battlefield. Field Artillerymen evolved from mere observers to expert synchronizers of all available fires. The FIST reconfirmed the FA’s commitment to the maneuver commander and intrinsically linked us to his success in combat. Revolutionary change.

Facing Change in the Future. Advancements in technology have caused us to change our methods as the world and its battlefields become more complex. But the one thing that has not changed is our target: the mission to destroy, neutralize or suppress the enemy by cannon, rocket or missile fire and help integrate all fire support assets into combined arms operations. Whether we use Crusader howitzers and MLRS to deliver fires, the Bradley FIST vehicle to acquire and designate targets or the effects coordination center (ECC) to synchronize fires, successfully accomplishing the FA mission remains our goal. But history has taught us that, over time, our methods will change. And the change will be revolutionary.



About the May-June Leadership Edition

You have just published *another* outstanding edition. You should have heard [General, Retired] Jack Merritt extolling the magazine at a recent luncheon.

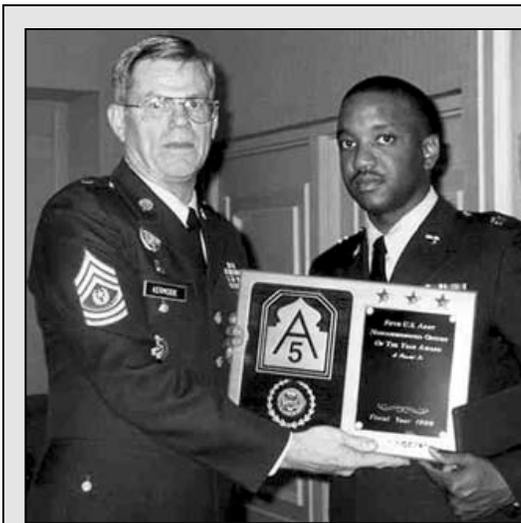
I am writing to congratulate you and to send in a correction. In the article by [Chief of Staff of the Army General] Dennis Reimer ["Leadership: Turning Challenges into Opportunities"], he quotes me twice as saying, "Not all are

privileged to be Field Artillerymen." In fact, I did say that during our US Field Artillery Association Annual Meeting in April at Fort Sill where we celebrated his great career and contributions to the Army with a Military Tattoo. It is a great quote and well known within the ranks, but it should not be attributed to me. The creator is Lieutenant General Thomas W. Dunn, now deceased.

When General Dunn was Commandant of the Army War College [Carlisle Barracks, Pennsylvania], he drove members of the other branches nuts with his constant waving of the crossed cannons. He was a great Field Artilleryman.

Congratulations, again, on a superb issue.

LTG(R) David E. Ott
President, US Field Artillery Association
Alexandria, VA



Ssg Young—1999 Fifth Army NCO

In a ceremony 30 March 1999 in Las Vegas, Nevada, Staff Sergeant Jerome Young received Fifth Army's highest award—Fifth Army NCO of the Year. Sergeant Young of the 2d Battalion, 479th Field Artillery at Fort Riley, Kansas, is an Observer/Controller/Trainer for the Multiple-Launch Rocket Systems (MLRS) used in Kansas, South Dakota and Arkansas Army National Guard units.

Fifth Army selected him from outstanding NCOs nominated from 22 states west of the Mississippi River. Sergeant Young also received the NCO of the Quarter, NCO of the Year and Brigade NCO of the Year awards before being named Fifth Army NCO of the Year. In October 1995, Sergeant Young, who has been an NCO since 1993, was inducted into the Sergeant Morales Club and, in 1996, was named V Corps' Distinguished Leader. Sergeant Young is shown in the picture on the left receiving a plaque for the award from Fifth Army Command Sergeant Major William J. Kermode, a former Fort Sill and Field Artillery CSM.

1998 History Contest Winner Places Nationally

Congratulations are in order for *Field Artillery* author Lieutenant Colonel R. Powl Smith, Jr., whose article "Staying on the Cutting Edge: Military Professionalism and the Mexican War" recently was selected as the best of Army Professional Journal articles published in 1998 by the Army Historical Foundation, Inc., Alexandria, Virginia. The "Distinguished Article Award" includes a plaque and \$250.

The article also earned the author a First Place in the US Field Artillery Association 1998 History Writing Contest and was published in the July-August edition—"Thunder in the Ozarks: The Battles of Wilson's Creek and Pea Ridge" by Majors William S. Bland and William M. Raymond, Jr., and "From the Parade Ground to the Battlefield: Henry Knox and the Battle of Monmouth" by Captain Michael D. Carter,

USAR, were Finalists in the Foundation's competition. The latter article was reprinted in the *Journal of Royal Artillery*, Spring 1999, London, England.

The Army Historical Foundation is a nonprofit, tax-exempt organization dedicated to preserving the history and heritage of the American soldier. Its goal is to promote greater public appreciation for the Total Army's contributions to America for 224 years. The Foundation is also the principal fundraiser for the national Army museum planned for the Washington, DC, area.

The Foundation's annual writing contest recognizes excellence in US Army history. At its annual members' meeting 14 June in Washington, DC, the Army Historical Foundation recognized three books and two articles: Biography, *Honorable Warrior: General Harold K. Johnson and the Ethics Command* by Dr. Lewis Sorley, University

Press, Kansas; Operational and Battle History, *A Devil of a Whipping* by Lawrence E. Babits, University of North Carolina Press; Non-Combat Organizational and Social History, *Citizen Soldiers in the War of 1812* by C. Edward Skeen, University Press of Kentucky; and, in addition to the Smith article in the category of Professional Army Journals, the article "Winged Interceptors: Politics and Strategy in the Development of the Bomarc Missile" by Clayton K. S. Chun, *Air Power History*, Winter, won in the category of Non-Army Journals.

Books and articles are submitted for consideration by publishers or Foundation members. For more information on the Foundation, see the web site at <http://www.armyhistoryfnd.org> or contact the Foundation at ArmyHstFnd@aol.com.

Editor

Going out with a Bang!

Editor: The following is by Shirley K. Dismuke, wife of Command Sergeant Major Thurman A. Dismuke, which appeared in the "2d Battalion, 5th Field Artillery Battalion Newsletter," her final article as her husband PCSes to Germany. The battalion is part of the 212th FA Brigade, III Corps Artillery, Fort Sill, Oklahoma. Thanks to former 2-5 FA S3, now the 212th FA Brigade S3, Major Glenn Reisweber who tipped us off to this piece.

I've been fighting with this article ever since I told Gayle Marshall, the newsletter editor, that I wanted to write a farewell article to the battalion wives. I've started it at least three-dozen times with little more success than getting past the first line. Today, however, is going to be different.

Why today and not last week or the week before? The article should have been in the May edition, or at least I told Gayle I'd have it by then. What makes me think that *today* I can write something that I haven't been able to put in words thus far? That today I'll find the words to tell all of you how proud I am for having shared this time in my life with you and your families? Or that I can express in mere words how important you all are to me and my family?

Well, *today* I am covered with dust and the smell of Field Artillery smoke. Today, I shared one of the most powerful experiences of my military career with three soldiers in the back of a howitzer. *Today* I pulled a lanyard! I watched the breech recoil, ignite the charge and send a round down range, and explode with only a small portion of the power of which it is capable. *Today*, I'm a Field Artilleryman (I use that term very loosely) and can accomplish anything!

For those of you who didn't attend Family Day at Mow Way House, you have no idea what I'm talking about. For those of you who were there, you can relate. For those of you who were honored with the same opportunity to fire, you know exactly what I mean. I was in the Army 17 ½ years [1979 to 1997 Military Occupational Specialty 71L Clerk Typist], and my greatest feat was to be machine gunner during my ANCOG [Advanced NCO Course] field problem. As an Administrative Assistant, I didn't get many opportunities to do real-live Army, "John Wayne" kind of stuff. Even that can't compare to what I did and saw today.

In a matter of a few seconds, it was over. I pulled the cord, just like the section chief told me. I saw the flash, and I rocked with the recoil as the breech bounced back and lunged forward again, rocking the tons of metal like a paper boat in an ocean. The soldiers asked if I was Ok, and all I could say was "Wow!"

I had no bruises. I didn't get a misfire or a hangfire. Everything went great. But I was changed. The pull of the lanyard changed me. It gave me a new appreciation for the orchestration that must happen for a round to land on its target. The coordination and team work that goes into even one round firing is amazing.

I don't know all of the steps—and never will. But I know someone has to load the round. Someone has to coordinate with the operations center. Someone has to be there watching for safety. All that goes on while someone is standing there, lanyard in hand, waiting to pull.

It is teamwork like this that makes the Army and family support groups [FSGs] strong and powerful. Sometimes we only see the person that pulls the lanyard, the leader, the one with the loudest voice or the one who gets all the praise and attention. Today, I want to make sure we remember all those spouses behind the lanyard, the ones that organize, decorate, make phone calls, bake, cook, type, Xerox, baby sit and the other myriad of tasks needed to make great things happen. Today, I want us all to feel the power of the lanyard, to know we're part of the 2-5 FA team, and that everything we contribute to the mission makes an important difference.

When the new CSM's wife comes to 2-5, she'll probably be motivated and full of wonderful ideas for change and improvement (sound vaguely familiar?). But before you let her go too far, hand her the lanyard. Let her feel the power of your team. Let her know you are organized, powerful and ready to fire.

Don't, however, let her pull the cord. She's not ready. Train her so she can appreciate the gunner, the ammo team, the forgotten private that keeps the radios operational or the one who changes the pads on the track. Introduce yourself. Tell her you are a key caller, a FSG leader or a volunteer for ACS [Army Community Services]. Train her like you trained me. And then hand her the lanyard so she, too, can *Go Out with a Bang!*

Web Sources for Military History

At web site <http://members.aol.com/dann01/military.html>, militaryhistorybuffs can find 440 links to military history web sites in America and around the world. And web site originator Dr. Richard Jensen, Professor of History Emeritus at the University of Illinois Chicago, says only one in three web sites he evaluated is linked to Web Sources for Military History, which he designed for college professors and students.

The site has 14 pages of on-line information and links organized by historical categories: Ancient, Medieval, 15th-17th Centuries, 18th Century, American Revolution, Napoleonic Era, 19th Century, US

Civil War, World War I, World War II, World War II-Pacific, Cold War, Third World, Korea, Vietnam and Desert Storm to Kosovo with additional categories of General, Air Power and Sea Power. Site contributors range from universities (such as Yale and the University of California) to The History Channel to individual experts, such as Dr. Jensen, who taught military history for 30 years, including as a Distinguished Visiting Professor at the US Military Academy at West Point and a Fulbright Professor at Moscow State University in the former USSR.

The web sources include bibliographies; official documents, letters, articles

and books on line; maps; photos, drawings and paintings; poetry and literature; reenactments; historical societies and museums; and other info.

Although information on artillery may be found as part of many web pages, the Napoleonic Era, US Civil War and World War I historical categories feature artillery web sites. For example, the award-winning US Civil War web site includes an Artillery web page with subpages on Organization and Drill, Weapons, Ammunition, Equipment, Famous Artillerists, Reenactments and more.

Editor

Lieutenant General (Retired) Harold G. Moore, Co-Author of
We Were Soldiers Once...and Young

We Were Soldiers Once...

The Battles of Ia Drang, 1965

Interview by Patrecia Slayden Hollis, Editor

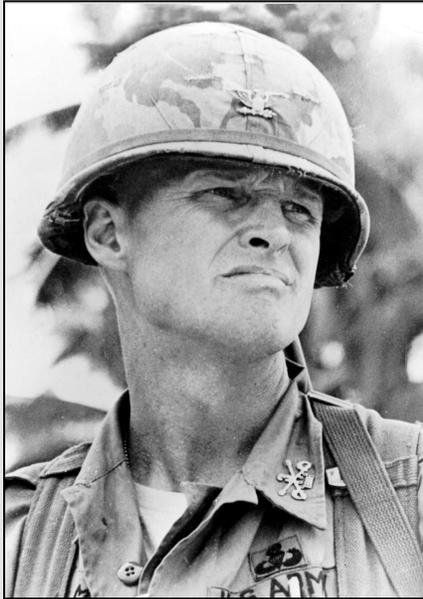
In late October 1965, then Brigadier General Chu Huy Man, commander of North Vietnamese forces in the Central Highlands, attacked our Plei Me camp approximately 26 miles south of the capital city of Pleiku in Pleiku Province. [See Figure 1.] He attacked in great strength and was close to overrunning it when the 1st Cavalry Division (Airmobile) was ordered to stop him.

The 1st Cav's 1st Brigade was deployed from the An Khe base camp to the battle area around Plei Me for almost three weeks. The brigade commander's battlespace was approximately 4,500 square miles—50 by 90 miles of jungle. All movement was by aircraft, primarily helicopters. The 1st Brigade gained and maintained contact with the enemy at a strength of two regiments of approximately 4,000 men.

The 3d Brigade was to relieve the 1st Brigade of its mission. The 3d Brigade consisted of the 1st Battalion, 7th Cav, my battalion; 2d Battalion, 7th Cav; and 2d Battalion, 5th Cav. We patrolled around Plei Me camp for three days, as ordered. It was a walk in the sun—no contact.

Late afternoon 13 November, I was ordered to air assault the next morning into the Ia Drang Valley 15 miles west, deep into enemy territory, and conduct search and destroy operations. [See Figure 2.] We made contact with a large enemy force after landing. The enemy force was two battalions of the 66th Regiment and a composite battalion of the 33d Regiment Plei Me survivors, Peoples Army of Vietnam [PAVN], and the H-15 Main Force Viet Cong Battalion. The 66th was fresh off the Ho Chi Minh Trail and eager to kill Americans. We had a three-day, two-night nonstop battle that was a real cliff hanger. Although we were outnumbered initially almost 10 to one, our superb artillery and air support throughout the battle made the difference.

About the middle of the third day, the enemy quit the battlefield, leaving behind some 600 dead and 300 weapons. With our fire support, including B-52 bombers, we estimated we killed and wounded another 1,200 enemy. I lost 79 men killed, 121 wounded and none MIA [missing in action], including those from units attached during the fight.



Q What was PAVN General Man's mission in the Central Highlands?

A In all wars in Vietnam, whoever owns the Central Highlands, owns South Vietnam. In Hanoi, November 1991, Brigadier General Man—then

Senior General Man—told Joe Gallo-way [UPI journalist at the Ia Drang battle and co-author of the book] and me that his original mission was to take Plei Me and Pleiku, then advance east to An Khe and attack our base camp. But Hanoi changed his mission to attack

Plei Me in an attempt, as he put it, to “draw the tiger out of the mountain”—the “tiger” being the 1st Cav Division.

Both General Man and Major General Hoang Phuong, the Vietnamese Director of Military History, told us in Hanoi that they knew how to fight the French, had defeated the French in 1954. But they were very apprehensive about how to fight the Americans with their helicopters and high-tech equipment. They were willing to lose a lot of men to learn how to fight this new airmobile division, the only one like it in the world. And that division was sitting in the Central Highlands on the most direct route from the South China Sea to Cambodia—Route 19.

Q How and why was the elite 1st Cav Division (Airmobile) developed? Was the concept mature and effective at Ia Drang?

A In the early 1960s, Secretary of Defense [Robert S.] McNamara directed the Army take a bold, new look into using helicopters and small fixed-wing aircraft to replace ground transportation on the battlefield. The concept was based on one espoused in the mid-50s by World War II paratrooper Lieutenant General James M. Gavin.

In 1963, the 11th Air Assault Division (Test) was formed at Fort Benning, Georgia, to test the airmobile concept. Tests continued through 1964, evaluating maneuvers against armored forces, guerillas and straight infantry units, and found the airmobile division was feasible. So Secretary McNamara authorized an airmobile division in the US Army. I was in that test division for 14 months as commander of an infantry battalion. The 11th Air Assault Division became the 1st Cav Division (Airmobile) in July 1965 and was ordered to Vietnam by President [Lyndon B.] Johnson later that month.

During the Ia Drang battle, there were no roads into the area and the temperature was 100 degrees. Helicopters brought in all water and ammunition and took out our wounded and dead. The only way into Ia Drang, with an element of surprise, was by helicopter, and the only way we could have sur-

INTERVIEW

vived at Ia Drang was with helicopter support.

Historian General Phuong was a lieutenant colonel on the ground during the Pleiku Campaign. He said it was very confusing to fight the 1st Cav because “We never knew where you would turn up....You jumped around like frogs. We suspected that there were informers in our ranks because you landed on top of us so many times.”

He also told us they had two battalion commanders killed and five or six company commanders and, I think, eight lieutenants killed in the Ia Drang Valley. You don’t lose all those leaders without losing a heck of a lot of men too.

The airmobile concept was proven during the Pleiku Campaign, which included the battles in the Ia Drang. When my battalion air assaulted 14.6 miles deep into the Ia Drang Valley, it was the longest jump into enemy-held territory up to that time. In the Gulf War, the 101st Airborne Division air assaulted 100 miles to the gates of Basra in Iraq. So you can see how airmobile operations and equipment have improved.

Q Your worst nightmare was realized when you came into heavy contact before your entire battalion was on the ground. At that point, why were there only 16 Hueys bringing your battalion into LZ [Landing Zone] X-Ray in waves with 30-minute roundtrip delays in between?

A Before our 3d Brigade relieved the 1st Brigade, the G2 intelligence officer briefed the brigade commander and me. A map on the wall had a red star, meaning “enemy base camp,” on top of the Chu Pong Massif that overlooks the Ia Drang. So I knew going in that we were in for a fight. I did not send in a ground recon team because if it made contact, it would compromise our mission and we’d have to launch prematurely to save the team. We did make an air recon early on the morning of the assault, way up high so as not to spook the enemy.

By air, we identified two or three possible landing zones, and I chose LZ X-Ray because it could accommodate eight to 10 helicopters at a time. I didn’t know why we didn’t get more Hueys. Later, when researching my book, I was told the 1st Brigade had worn out the Hueys

at Plei Me and the helicopters were down for maintenance.

A Huey with a full load of fuel initially could bring in only seven or eight men. Then as fuel burned off, each bird could

bring in eight to 10 men. I was concerned that it would take three to four hours to bring in my battalion—more time if we were in combat. Of course, that’s exactly what happened.

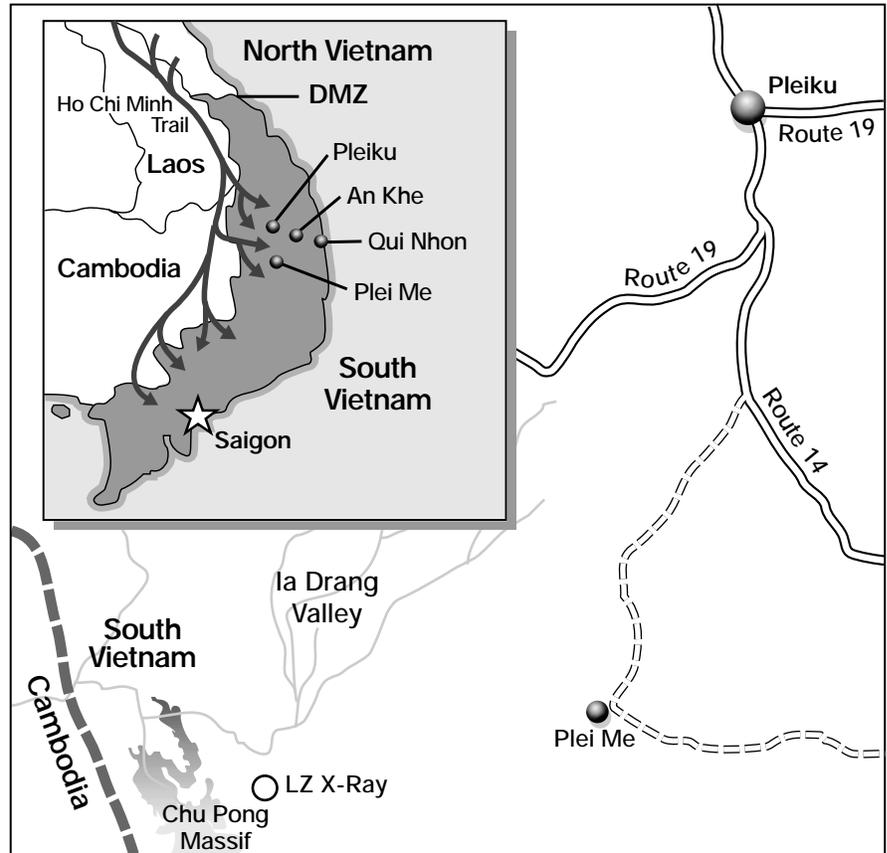


Figure 1: South Vietnam with cities highlighted in the Central Highlands.

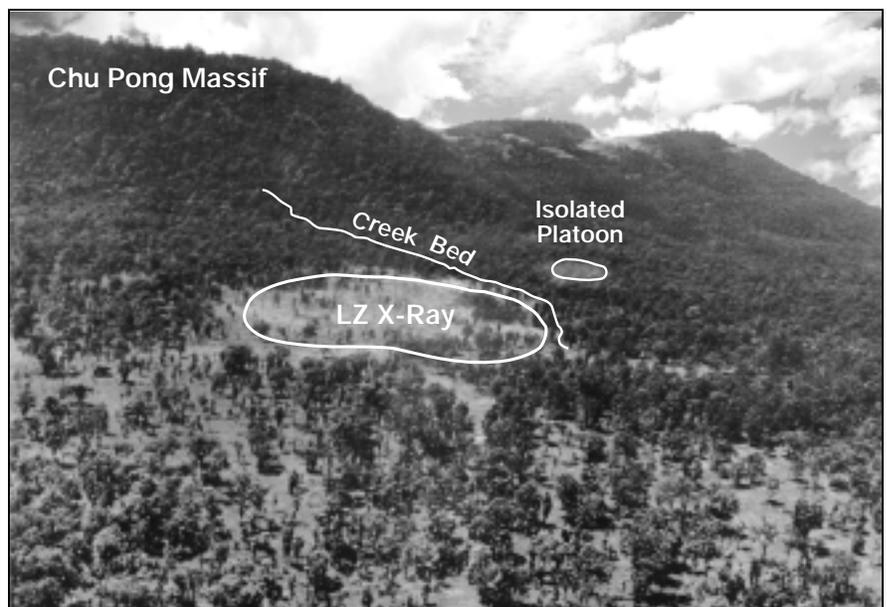


Figure 2: October 1993 photo of Landing Zone X-Ray in the Ia Drang Valley, the site of the November 1965 battle. (Photo by Bill Beck)

The night before we assaulted into X-Ray, I ran through my “what ifs”—“What if the enemy does *this*?” “What if the enemy does *that*?” When you’re planning an operation, you know roughly what the weather is going to be, particularly for the next day; you have a fair idea of what the terrain is like; and you have some information on the enemy. But you can’t coordinate your plan with the enemy—you don’t know what he’s going to do. So if you run through the “what ifs” in your mind, you might be a few seconds ahead of the enemy. I had already considered the “What if I get into a pitched battle before all my men are on the ground” and was prepared for the possibility.

Q *Immediately upon landing, you faced a force that was clearly significantly larger than your battalion. You later found out that force was more than 2,000 North Vietnam regulars against your 450 men. Where were the reinforcements from division? What should have happened that didn’t happen?*

A I was in the lead helicopter going in. When I landed, I quickly saw the creek bed was the key terrain feature. My mission was to search for and destroy the enemy up to 1,500 feet on the Chu Pong mountain and out to the north and east. The creek bed and adjacent ridge line was a prime route of approach up or down the mountain. The rest was “scrub” jungle. When the fighting began, the enemy came straight down that ridge line.



You’ve got to be where your instincts and intuition can operate—very important in a fast-moving situation.

My CP [command post] was under my helmet and I was all over. Overhead in my command helicopter were my battalion S3, fire support coordinator, Air Force forward air controller and helicopter liaison officer. I never believed in riding around in a command helicopter 1,500 to 3,000 feet above a fight. You’ve got to be on the ground with your troops and see and sense what’s going on—or what’s *not* going on—to be an effective commander. You’ve got to be where your instincts and intuition can operate—very important in a fast-moving situation.

As it turned out, we were in heavy contact right away. One of the B Company platoons (the only company on the ground when the enemy attacked) broke off chasing six or eight North Vietnamese down a trail. This 29-man platoon got to a small clearing about 100 yards west of the LZ and was suddenly surrounded by 250 PAVN. That platoon ended up fighting about 600 men of the 33d Regiment who had fought at Plei Me. The 9th Battalion of the 66th Regiment came down the ridge, guns blazing. I had only one company on the ground with one platoon isolated—we were in a helluva fight. The noise was unbelievable.

Then the early elements of A Company landed, and I sent them to the left of B Company as the heavy fighting continued. An hour into the battle—about 1330—I called the brigade commander on the radio and asked for help. He said he’d already alerted another company from another battalion to reinforce us. But I knew I would not see that company for another three hours because I couldn’t even get all my battalion in. By 1430, I knew we were in a fight to the finish.

As the last of A Company and Charlie Company came in, I ran into the middle of the LZ and yelled at the Charlie Company commander to move into the trees, tie in with A Company on his right and expect to be attacked. That order was based on my instinct and intuition. Within 10 minutes, that company was struck by the 7th Battalion [66th Regiment]. My rear was open, but I didn’t worry about my rear. I

just knew that the enemy was going to keep trying to envelop me from the mountain.

At about 1430, the rest of Charlie Company and then Delta Company started landing and the LZ went hot. The enemy came down the creek bed firing at the choppers. I called off all landings until we could cool the situation—it took about 45 minutes to do that. I activated a two-chopper LZ a little farther away from the creek bed. The magnificent 229th Helicopters came in under fire, brought us ammo and water and took our wounded out—I cannot commend those brave pilots highly enough. About 1700, we got an additional company of reinforcements, and the next day, 3d brigade sent another battalion overland to help us. It arrived about noon.

So, what didn’t happen that should have? In hind sight, I wonder why division didn’t send in a battalion or two from another brigade after we made heavy contact and continued in combat for three days—not air assault them into the LZ, but send them in around X-Ray to cut off enemy reinforcements or envelop the enemy vertically. The mission was to find and kill the enemy, not save my battalion—and we had found the enemy.

Q *Your under-strength 1st Battalion, 7th Cav was greatly outnumbered and alone deep in enemy territory. How did it survive—what weighted the battle in your favor and why?*

A We survived for two reasons. One was magnificent fire support, especially Field Artillery. Of course, all rifle companies had a forward observer [FO] with a radio. But the first afternoon, A Company’s FO was killed. The next morning, Charlie Company’s FO was killed. The B Company FO, Lieutenant Bill Riddle, did a magnificent job for A and B Companies too.

Our fire support weighted the battle in our favor. We had close air support from the Navy, Marines, Air Force. We had aerial rocket artillery on helicopters.

The enemy had very little fire support. In Hanoi, I asked Lieutenant General [Nguyen Huu] An, who was my opposing enemy commander as a lieutenant colonel in the battle, where his 12.5-mm Chinese anti-aircraft machine gun

company integral to his 66th Regiment had been during the battle. He said the company was back at the command post on the Cambodian border protecting General Man's division headquarters. If he'd had those machine guns above us on the side of that mountain, we'd have had a much tougher time getting those helicopters into X-Ray. General Man had no artillery and only a few mortars in the Ia Drang.

The second reason we survived while so outnumbered was my troopers—they were trained and disciplined and had tight unit cohesion. Many of them went through AIT [advanced individual training] together, had been together in the test division at Fort Benning. Ia Drang was their first major battle, and under-strength and outnumbered, they stood tall.

Regrettably, we did not go to war at full strength. In early August of 1965, Army policy was to pull all second lieutenants from units heading for Vietnam who had not attended their basic courses. So the Army pulled my trained lieutenants and replaced them with new lieutenants. I trained them in airmobile operations for a week at Benning, for 30 days on the ship going to Vietnam and then early on in Vietnam.

Then President Johnson decreed that any man with less than 60 days left to serve in the Army when we shipped out would not accompany us. I lost about 150 men I had trained for 14 months. It was tragic that he did not freeze discharges like President George Bush did in the Gulf War. I did get a few replacements in from Fort Benning before we left, but not many.

In Vietnam in mid-October, I started losing men rotating back to the States. Also, malaria hit us. Then as we headed out for the Ia Drang, we had to keep men back at base camp to guard the battalion area. My rifle companies each had only 114 men, so we went into battle with 450 of a 764-man infantry battalion.

Q When you were fighting the enemy in hand-to-hand combat, what type of fire support was most effective? How close did you call in artillery?

A Field Artillery, without a doubt. We had forward observers on the ground, and when they were killed, the company commanders adjusted fires.

The cut-off platoon had a three-stripe buck sergeant out there, Sergeant Ernie Savage, with a radio calling in FA. We trained all our NCOs on calling for and adjusting FA and mortar fires back at Fort Benning.

The fighter-bombers, although helpful, flew fast, and the smoke and dust made accuracy difficult; occasionally a bomb would explode in our perimeter. My CP/medical aid station/ammo pile area of the LZ took two napalm bombs the second morning.

Our most effective fire support was Field Artillery. Aerial rocket artillery, which were Huey gunships with 2.75-inch rockets, also were very effective. They got right down in the trees, hovered around an action and fired. We also used fighter-bombers up the side of the mountain to strike enemy reinforcements moving toward us.

Our Field Artillerymen from the 1st Battalion, 21st Field Artillery firing two batteries of 105-mm howitzers from LZ Falcon five miles away fired so fast and often that some recoil mechanisms failed. One howitzer tube melted out that first afternoon. Two more batteries joined in the second day. For three days, we had practically nonstop Field Artillery fires—*magnificent*.

Now, how close did we call artillery in? You call it in where the enemy is. If the enemy is attacking 200 yards out, you bring the fire in on him at 200 yards out. If he gets real close before he attacks, then you bring artillery in "real close"—30 yards or less if you have to. You may take some friendly casualties, but you'll take a helluva lot more from the enemy if you don't bring your fires in close enough to do some good. On the first day and the second morning, we brought fires in on top of our intermingled fighting. But then, every hard-fought battle is a crap shoot—you roll snake eyes or a seven.

Q In the prologue of your book, you said Ia Drang was a dress rehearsal for the war. How did the Ia Drang Campaign change the war in Vietnam?

A Up until Ia Drang, contact had been primarily with Viet Cong. Ia Drang was really very interesting, particularly the battle at X-Ray, because that fight was the first major battle of



LZ X-Ray was the first major battle of the Vietnam War between US Army and North Vietnamese regulars in strength.

the Vietnam War between US Army and North Vietnamese regulars in strength. It also was the first time the enemy did not break contact and withdraw. He came at us and kept coming at us that first day and the next two days. It took me about five seconds to flip my head around to the fact that we were in for a helluva fight.

But I knew we would prevail. Although there were more of them than us (at the time, I didn't know how many more), it never entered my mind we'd go down. My unit was well trained, and we had great fire support. We had water and ammo coming in—why would we lose? (In a tough battle, you're not interested in food. All you want is water, water, water and ammo. I don't think I ate for three days.)

In my Hanoi meeting with General An after the war, he said he was directed to win the first battle for psychological and morale reasons. He figured they had won—they had stood up to American units with superior firepower and inflicted heavy casualties on them.



Retired Lieutenant General Moore meeting in Hanoi with General An after the war. General An said he was directed to win the first battle for psychological and morale reasons.



Colonel Moore (on left) commanding a brigade in the 1st Cav Division: "I thought we were serving a very worthy cause...until we went into the Bong Son Operation in 1966."

On the 16th of November, my battalion was ordered out. The two battalions sent by brigade to help us were on the ground at X-Ray: the 2d Battalion, 5th Cav and, then at the end, the 2d Battalion, 7th Cav. They saw no action that night. Next day, they walked out of X-Ray—the 2d of the 5th to LZ Columbus and the 2d of the 7th to LZ Albany. The North Vietnamese shattered the entire column of the 2d Battalion, 7th Cav at Albany in a magnificent hasty ambush.

Interestingly, General An told me he had ambushed the survivors of *my* battalion that abandoned X-Ray and were moving in a long column out across the Ia Drang Valley. He thought he had whipped us over a four-day period. I quickly set him straight. But it revealed that our helicopter withdrawal was classically done with smoke and heavy fire support on that high mountain above us where he had withdrawn en route to Cambodia with his wounded.

As a result of the fight the North Vietnamese put up at X-Ray and Albany, General Westmoreland and the Joint Chiefs in Washington adopted the strategy of a war of attrition to kill as many of the enemy as possible, hoping Hanoi would cry "uncle." In research for my book, I was astonished that this approach was taken because I read a CIA analysis dated early 1966 that North Vietnam had the capability to keep sending regiments south indefinitely.

The strategy did not work because the enemy was determined not to let it work. In talking with Senior General Vo

Nguyen Giap twice after the war, he said they had been dominated by the French for almost 100 years and were determined to drive the round-eyed western foreigners out of their country no matter how many years it took. When you've got a government that totally controls all information going to its people, you have a country that can easily propagandize the "invaders" as attempting to "take over our country." In the eyes of Hanoi, the Americans inexplicably entered the Vietnam civil war for a reason unintelligible to them: "to defeat communism and prevent its expansion."

And, of course, the strategy of a war of attrition would not work for the American people. They weren't willing to trade one American's life for 10 or 12 enemy lives. In the beginning, however, most Americans supported the war in Vietnam. I'm talking 1965—early 1966.

When my battalion went to Vietnam, we thought we were serving a very worthy cause. I felt that way until we went into the Bong Son Operation in 1966. I was then a brigade commander with the mission of clearing the Bong Son Plain and surrounding areas and turning them over to South Vietnamese governmental and military officials. It was a large area and took six weeks to clear and turn over. I lost more than 80 men killed and a great number wounded in the process.

A week after we left, the enemy was back. I realized then that if the best division in the world cleared a small area

of enemy, turned it over to Saigon Vietnamese officials and they couldn't maintain control for more than a week, how could these incompetent officials secure, hold and lead all of South Vietnam?

Q You've outlined four principles for a leader's conduct in the heat of battle. [See Figure 3.] How do leaders prepare to follow those principles in the chaos and friction of battle?

A As a leader, you first instill in yourself and your unit the will to win. I never permitted second place trophies to be displayed, awarded or accepted. If we had lost the battle at X-Ray, General Westmoreland would *not* have come down to my battalion and hung a second place ribbon on my battalion colors.

At the same time, never let athletic or military competition cause a unit to run down another company...or battalion...or brigade. Ensure your unit thinks and acts like a team in a family of fighters.

Prepare your subordinates to take over your duties in case of your death or serious injury. Make that the policy at all levels for two levels down: a squad leader must be prepared to command a platoon or a company.

Ensure squad leaders and fire team leaders know how to adjust artillery and mortar fire. (You don't have to do it live-fire; golf balls and a stretch of sand will do.)

Read military history and battlefield leadership books, particularly books about small unit actions. The personality of a big battle is often formed by a small fire fight—it just seems to balloon. Walk historical battlefields with maps and books in hand and try to feel the pulse of the battles.

Most importantly, learn to rely on your instincts. I *knew* where the enemy at X-Ray was going to come from: the creek bed and not from my rear. I'd done a lot of reading about this enemy and knew he favored small encircling movements.

In Hanoi, I told General An that my entire rear was open for three hours that first afternoon. He looked crest-fallen and said, "It was?" Then he said something very wise: "No commander ever knows everything that's going on, on the battlefield."

1. Three strikes and you're *not* out. There are two things a leader can do: contaminate his environment and his unit with his attitude and actions or inspire confidence.

A leader must be visible on the battlefield and must be *in* the battle—from battalion commanders on down and, on occasion, brigade and division commanders. A leader must be self-confident, possess a positive attitude and exhibit his determination to prevail, no matter what the odds or how desperate the situation. He must have and display the will to win by his actions, his words, his tone of voice on the radio and face-to-face, his appearance, his demeanor, his countenance and the look in his eyes. A leader must remain calm and cool, exhibiting no fear. He must ignore the noise, dust, smoke, thirst, explosions, screams of the wounded and the dead lying around him. That's all normal on the battlefield.

A leader must never give any hint or evidence that he's uncertain about a positive outcome—regardless.

2. There's always one more thing you can do to influence a situation in your favor... and, after that, one more thing... and, after that, one more thing... In battle, the leader must periodically detach himself mentally for a few seconds from the noise, the screams of the wounded, the explosions, the smoke and dust and the intensity of it all and ask himself, "What am I doing that I should not be doing?" and "What am I not doing that I should be doing to influence the situation in my favor?"

3. When there's nothing wrong, there's nothing wrong— *except* there's *nothing* wrong! That's the time when a leader must be most alert.

4. Trust your instincts. On a critical, fast-moving battlefield, instincts and intuition amount to an instant "estimate of the situation." The leader's instincts are the product of his education, training, reading, personality and experience—he must *trust* his instincts.

When seconds count, instincts and decisiveness come into play. In quick-developing situations, the leader must act fast, impart confidence to all around him and not second-guess a decision—*make it happen*. He cannot stand around slack-jawed when he's hit with the unexpected. He must face up to the facts, deal with them and take *action*.

Figure 3: Four Principles for Leader Conduct in Combat

Q *What have I not asked that I should have to educate our military leaders for future combat?*

A I made two tactical errors at X-Ray. First, I should have put in some air preparation on the mountain before we landed—fighter-bombers and smoke. I think that would have helped us—no excuse for not doing it. Second, I should have put low-flying, small observation helicopters up over the area the second morning. They might have detected the enemy and called fires in on him before he got close to us. I sent out foot patrols, but air patrols also would have helped.

I also would advise future leaders to train their troopers—make it second-nature for them—to reduce enemy fire *before* going out to retrieve a wounded buddy. I had several men killed trying to rescue others.

Soldiers must understand that their wounded buddies are going to yell desperately, "Somebody help me!" or scream for a medic or "Mom!" It will happen and it will be heart-wrenching. Soldiers must be trained to resist going after the wounded until they reduce the enemy fire that wounded their buddies.

Q *Why did you write your book?*

A We wrote the book to record the history of the great men who fought in the battles of the Ia Drang Valley in November 1965. Joe Galloway and I resolved to tell people across America that these men were not drug-ridden soldiers who "threw grenades in their officers' tents" like Vietnam vets were painted in the media later on—that they were great American soldiers doing their jobs.

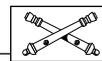
I'm most pleased that, because of our book and the media attention it received,

men across America have been recognized in their home towns for their part at Ia Drang. About 30 of them have received awards they otherwise might not have gotten because they were wounded and evacuated or because the men who observed their combat actions were wounded and evacuated back to America for discharge.

I wrote the book because I knew if I didn't before I "go out of the game," nobody else would.

Q *What message would you like to send Field Artillerymen stationed around the world?*

A Read small unit military actions in your spare time. Study and practice your trade on close, close, close-in fire support—be *real* good at it.



Lieutenant General (Retired) Harold G. Moore, along with journalist Joseph L. Galloway, wrote *We Were Soldiers Once...and Young* (Random House, 1992) that was 16 weeks on the *New York Times* National Best Sellers List. The book chronicles the savage November 1965 battles at Landing Zones X-Ray and Albany in South Vietnam. At X-Ray, he commanded the 1st Battalion, 7th Cavalry, 1st Cavalry Division (Airmobile) and went on to command 3d Brigade in the same division. In 1990 and 1991, he went to Hanoi to meet with the North Vietnamese commanders who opposed him and, in 1993, he walked the Ia Drang battlefield with his former enemies. He also commanded the Infantry Training Center at Fort Ord, California, and the US Army Military Personnel Center at Alexandria, Virginia. He served as Operations and Plans Officer for the Eighth Army in Korea where he later commanded the 7th Infantry Division. He was a Fellow at the Center for International Affairs at Harvard University for a year and holds a Master of Arts in International Affairs from George Washington University, Washington, DC. Among other awards, General Moore received the Distinguished Service Cross for actions at Landing Zone X-Ray. His last assignment was at the Army Deputy Chief of Staff for Personnel at the Pentagon. He retired in 1977 after 32 years' service. He and wife Julie Compton, daughter of a Field Artillery colonel, split their time between homes in Crested Butte, Colorado, and Auburn, Alabama. He is an avid military historian, skier and outdoorsman.



Confederate Redlegs at Shiloh

Swatting the Hornet's Nest

by Major Thomas K. Hall

“In order to succeed on the modern battlefield, the Army needs to fight as a *combined arms team*.” How many times have we heard that statement? At training centers in the United States and Germany, maneuver commanders and fire support officers are constantly evaluated on their ability (or lack of) to place direct and indirect fire together at a critical point in battle. Rarely does a unit succeed at the training centers when fire support assets are unintentionally rationed throughout the battle. Massing one or more Field Artillery (FA) battalions in conjunction with the movement and fire of maneuver forces almost always produces victories. The 6-7 April 1862 Battle of Shiloh during the American Civil War provides a valuable lesson in the importance of ensuring that artillery and maneuver forces act together to help bring about victory.

The Battle of Shiloh. At 0455 on 6 April 1862, the Confederate Army of Mississippi under the command of Albert Sidney Johnston attacked the Union Army of the Tennessee camped on the banks of the Tennessee River near Savannah, Tennessee. The two senior Union commanders, Ulysses S. Grant and William T. Sherman, were taken completely by surprise. The Rebels quickly swept through the initial Union defensive positions and appeared poised to make good on Johnston’s prediction earlier that morning when he told his staff, “Tonight we will water our horses in the Tennessee River.”¹

By 1000, the Rebels’ momentum slowed as they found themselves up against the strongest Union position on the field. Remnants of three Union divi-

First Place

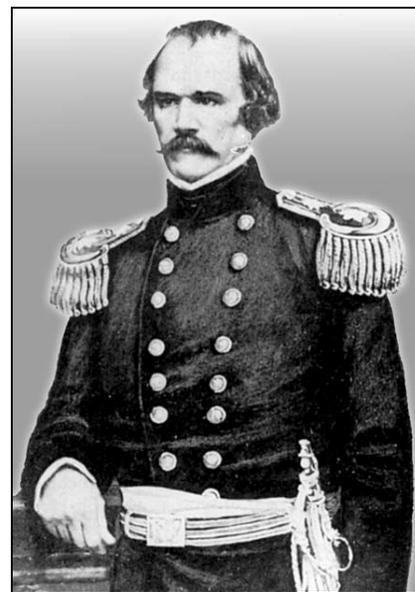


sions—Stephen A. Hurlburt’s, Benjamin Prentiss’ and W.H.L. Wallace’s— took defensive positions in a densely wooded area of thick brush bordered on either side by open fields. The Confederates made several futile charges against this Union position known as the Hornet’s Nest.²

The terrain in the Hornet’s Nest (see the map) greatly favored the defenders. The Union’s right flank was heavily wooded which would keep the Confederates from mounting a serious attack from that side. An old sunken road that made an ideal rifle pit ran through the middle. A dense undergrowth covered much of the front of the Union position. This vegetation provided concealment for the Union troops and made it difficult for the Rebels to maintain control when they tried to attack through it. Terms such as “dense undergrowth,” “impenetrable thicket” and “impenetrable undergrowth” were often used by Rebel commanders to describe the area.³ Duncan Field, an open field to the west of the Hornet’s Nest, has a small rise in the center causing anyone attacking across it to silhouette themselves on the high ground and make easy targets for the defenders.

William H. Stephens’ brigade of about 1,800 men was one of the first Confederate units to attack the Hornet’s Nest. The attack route Stephens’ men used was just to the east of Duncan Field and parallel to the Eastern Corinth Road. When the brigade lined up to attack, the 7th Kentucky and 9th Tennessee Regiments attacked across Duncan Field with the 6th Tennessee on the east side of the field. Just before Stephens attacked, the Federals improved their position by adding two more regiments (7th and 85th Illinois) to their defensive line.⁴

At 1030, Stephens’ brigade advanced to about 30 paces from the enemy line and received a murderous volley of fire that destroyed its front line of troops. The 6th Tennessee attacked through the woods with the underbrush partially concealing its advance so the Federals



General Albert Sidney Johnston, Commander of the Confederate Army of the Mississippi, died from wounds at Shiloh.

did not fire until they noticed the Rebel's bayonets shining in the sunlight. The 6th advanced into a part of the Union line that formed a "v" manned by both artillery and infantry. Soldiers in the 6th fell like "...grass before the sickle," and "the dead covered the ground....as if on dress-parade."⁵

Stephens had his horse shot from under him during the charge, and his son was severely wounded. All 12 men in the 6th's Color Guard were either killed or wounded. The colors of the 6th were reduced to rags, and the staff was shot 26 times. The order to retreat was not clearly understood along the line, and some men retreated while others either attacked or laid down. Two terrified soldiers lying on the ground had a cannon ball fall between them. One man grabbed the other and pulled him over the hole saying, "Frank, lie down right over the hole, do ye mind, for the ugly bastards niver strike twice in the same place!"⁶

One of the Confederate corps commanders, Braxton Bragg, arrived on the scene just in time to witness a failed attack by General Alexander Stewart's brigade. Bragg's next actions almost defied rational thinking. He ordered a brigade under Colonel Randall L. Gibson to storm the Hornet's Nest. But Gibson's first casualties at the Hornet's Nest came at the hands of Confederate soldiers. His 4th Louisiana Regiment was trying to get in the line of battle when one of General William Hardee's aides rode in front of them with a captured Stars and Stripes wrapped around his waist. A unit to Gibson's rear assumed the Yankees were attacking and fired into the 4th Louisiana's ranks, producing 105 casualties.⁷

Gibson's first attack against the Union forces was, predictably, hurled back with heavy losses. Gibson described the Union position as, "The strong and almost inaccessible position of the enemy—his infantry well covered in ambush and his artillery skillfully posted...was found to be impregnable to infantry alone" (emphasis added).⁸ His men advanced through a heavy undergrowth of scrub oak and could not see far. Gibson's men got to within 50 yards of the Union position before the Yankees opened up on them with deadly results. The firing on Gibson's brigade was so severe that one of his colonels assumed some of it had to be coming from the Confederate unit on his left and mistakenly called for them to cease firing.⁹

Captain Edgar Dubroca, Commander of Company C, 13th Louisiana, provided the most graphic example of the futility of the attack. An exploding shell went off in the midst of his company, killing six men and splattering blood and brains all over his chest.¹⁰ Captain Dubroca appropriately described the hopelessness of the attack when he wrote, "There is a time when endurance ceases to be a virtue."¹¹

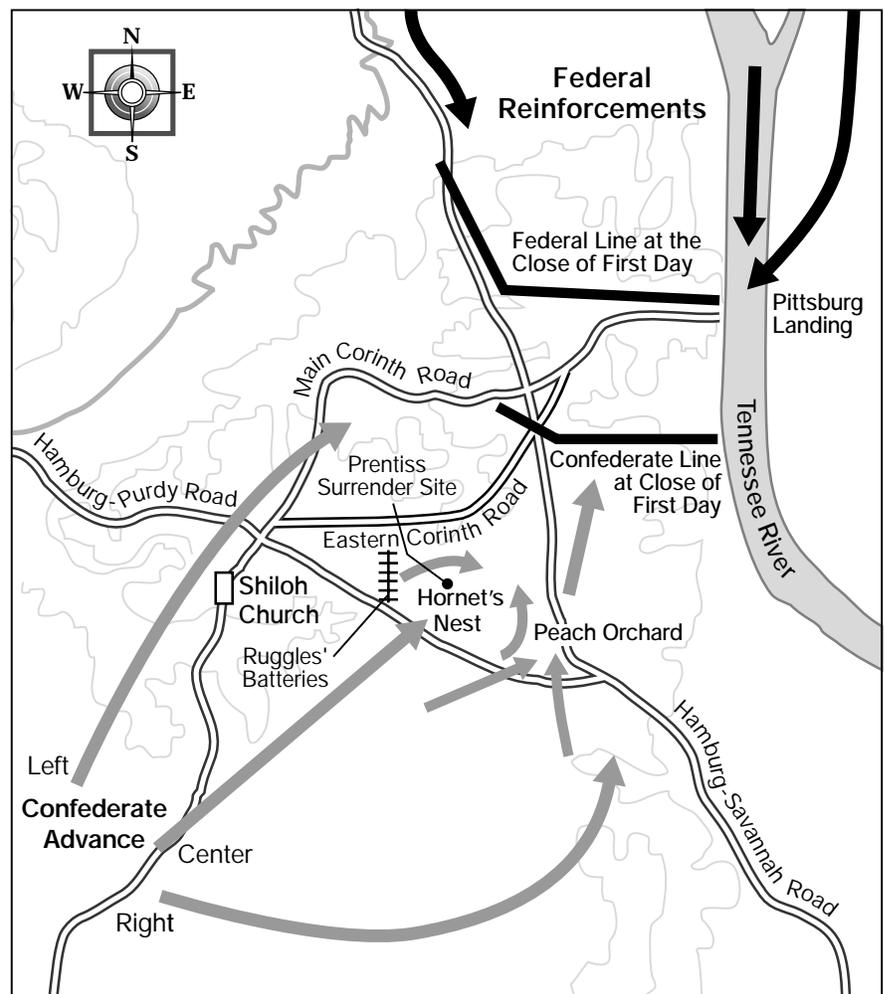
Gibson knew that infantry alone was useless against the Hornet's Nest. He sent one of his civilian aides, Robert Pugh, to request artillery support from Bragg. The general denied the request and ordered Gibson to charge again. Colonel B. L. Hodge, the commander of the unit on Gibson's right, strongly objected to the new attack orders. He later wrote, "I thought it impossible to force the enemy from this strong position by a charge to the front, but that a light battery playing on one flank and a simultaneous charge of infantry on the other, the position could be carried with but small loss."¹²

A pattern developed that officers and soldiers making charges into the Hornet's Nest realized: piecemeal frontal assaults were not going to dislodge the Union defenders. It seemed as though everyone but Braxton Bragg knew that artillery was needed in conjunction with the infantry to do the job.

By now, Bragg witnessed at least three unsuccessful frontal attacks on the Hornet's Nest. Colonel Allen of the 4th Louisiana came to Bragg with another request for artillery support. Bragg refused that plea and ordered Gibson to attack again.

By the time Gibson's shattered regiment fell back to Barnes Field south of the Hamburg-Purdy Road, it had made four abortive attacks on the Hornet's Nest. Shortly after the battle, Bragg wrote his wife a letter accusing Gibson of being an "entre nous," an arrant coward. Bragg also claimed that he personally led Gibson's regiment on one of the assaults.¹³

Over a year after Shiloh, Gibson challenged Bragg's assertion of his performance at the Hornet's Nest. Gibson felt



Battle of Shiloh, 6-7 April 1862

so strongly about the matter that he requested a formal court of inquiry to investigate Bragg's charges. Neither Gibson nor his fellow officers remembered Bragg rallying the regiment as he claimed. Gibson, along with other officers in his brigade, pointed out the several requests for artillery that Bragg denied. Colonel Allen claimed Bragg retired to the cover of a ravine during one of his assaults stating, "While I was executing this order, the enemy opened a powerful battery upon us. General Bragg, staff and bodyguard retired to a ravine. I saw nothing more of them during that day." The Secretary of War never convened a formal inquiry claiming that the business of conducting the war prevented him from doing so.¹⁴

By this time, Bragg had witnessed five unsuccessful attacks on the Hornet's Nest. For some inexplicable reason, he ordered the brigades of Colonel R.G. Shaver and Brigadier General Patton Anderson to attack. At 1430, Shaver attacked directly into the strongest part of the Federal position. The Yankees waited until Shaver got to within 50 yards before opening up with artillery and infantry, scattering Shaver's men all over the field. Shaver found it impossible to maintain control and advance through the "dense undergrowth."¹⁵

The Commander of the 7th Arkansas, Lieutenant Colonel John Dean, had his neck pierced by a minie ball during the charge. Dean's second in command, Major James Martin, took charge. Mar-



Major General Braxton Bragg failed to realize that, without artillery support, his infantry's repeated assaults on the Hornet's Nest were not going to take the position.

tin, lamenting the loss of his commander, wrote, "He died as a brave man and soldier would wish 'with his feet to the foe and his face toward heaven.'" Constant Yankee fire left Martin no time to mourn. He waited until after the enemy squeezed off a volley of musket and artillery fire and then fell back with what was left of his unit. Shaver's brigade would not see action the rest of the day.¹⁶

Bragg's conduct at the Hornet's Nest deserves close scrutiny. One could expect Bragg to initially order bayonet assaults, a common Civil War tactic for both armies. However, after the first two failed assaults and repeated requests for artillery support, Bragg should have realized that frontal assaults were not going to carry the position.

Altogether, the Rebels attacked the Hornet's Nest with 18,000 men. The Union position was never manned by more than 4,300 troops. The most the Confederates ever attacked with on any assault was 3,700.¹⁷ Bragg's stumbling at the Hornet's Nest accomplished two things: it produced scores of needless casualties for the Confederates and it gave Grant enough time to establish a strong line of defense near Pittsburgh Landing.

The stalemate at the Hornet's Nest forced the Confederate leadership to abandon the frontal assault tactic. The Rebels reached the point in the battle where something else had to be tried. What would occur in the next three hours gave both armies their first taste of what can be accomplished when massed artillery and direct fire assets are brought to bear on the same objective.

Redlegs Swat the Hornet's Nest. Near the peach orchard to the east of the Hornet's Nest, General Albert Sidney Johnston was shot in the back of the leg and bled to death at about 1430. Command of the Confederate Army fell to General P.G.T. Beauregard. Johnston's death only added to the confusion that existed in the Rebel army. The Confederates still had a problem trying to break the Union position at the Hornet's Nest.

Although the Hornet's Nest held up to the Confederate advance in the center, by about 1500 the South was advancing on the flanks of the Union strongpoint. The whole Union line began to bend backward around the Hornet's Nest. The Federal position was now becoming completely surrounded.

Bragg's First Division Commander, General Daniel Ruggles, was charged

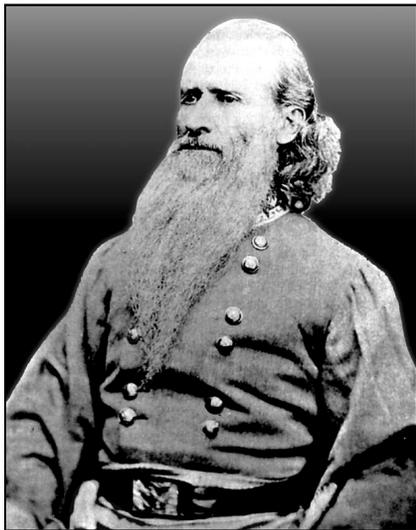
with breaking the Union center. Ruggles had seen enough of the frontal assaults on the Hornet's Nest to know that they would not work. Sometime between 1500 and 1530, Ruggles directed his staff officers to round up all the artillery pieces they could find and line them up facing the Hornet's Nest.¹⁸ Stanford's Mississippi battery, Byrne's Kentucky battery and a section of Ketchum's battery were already in position lobbing shells piecemeal into the Federal position. Within the next hour, the Confederates collected an additional seven batteries.¹⁹

The exact number of guns that Ruggles collected is the subject of some debate. Various sources have placed the number from 53 to 62. Based on Ruggles report and historical markers located on the battlefield, 55 guns is probably the correct number, assuming all batteries that took part in the barrage were at 100 percent strength. Regardless of the number, the King of Battle would be a major factor in capturing the Hornet's Nest.

At 1630, Ruggles' batteries, mostly six- and 12-pound howitzers, opened up on the Union position. The barrage could be heard for miles, and one Union officer thought it sounded like "a mighty hurricane sweeping everything before it."²⁰ Another Federal officer remarked that he was relieved when the Rebels finally started advancing on their position for that meant the artillery had subsided. The Rebel Redlegs pumped almost 180 rounds a minute into the Yankee position.

Confederate gunners did not conduct the bombardment of the Hornet's Nest unscathed. A Yankee battery fired on Robertson's Florida battery and literally blew one of his troops apart. The Federal counterfire became so intense that Robertson had to order a retreat. Robertson had so many horses shot during the bombardment that he had to leave two guns behind.²¹

Ruggles' batteries became the subject of controversy after Shiloh. He did not mention the barrage in his initial report on the battle nor was it mentioned in the letters and diaries of four cannoneers whose batteries were there. Ruggles claimed credit for the actions of the batteries in an amended report submitted a year later. At Ruggles' request, the amended report came with affidavits claiming that Ruggles was responsible for the concentration of artillery. Not coincidentally, the amended report came at a sagging time in Ruggles' career.²²



Brigadier General Daniel Ruggles, Commander of the First Division under Braxton Bragg, is credited with ordering massed artillery on the Hornet's Nest.

The line in front of the Hornet's Nest presented horrific scenes. Wounded men and animals filled the air with their screams of agony. The atmosphere in the Union position reeked with the smell of blood and smoke. One Iowa private said, "The whole earth seemed in a blaze—the sharp ringing crash of our musketry—our batteries belching forth their shot and shell, and roaring like the deep toned thunder."²³

Despite the enormous amount of ordnance hurled upon it, the Hornet's Nest still held. The Union flanks were a different story. They now began to bend further around the Hornet's Nest creating an envelopment of the Federal position.

At about 1730, Union General Prentiss knew that further resistance meant only more suffering for his men. He raised the white flag and surrendered what was left of his command. About 2,200 men, primarily from Iowa and Illinois, became Confederate prisoners of war.²⁴

Prentiss certainly did not shame himself or his men in surrendering. They held up the Confederate advance for six hours and allowed Grant to set up a strong line of infantry and artillery at Pittsburgh Landing. This defensive line would become known as Grant's Last Line.

The Confederate Army failed to push the Union Army into the river late that day (6 April). Several factors led to the Union Army's survival: exhaustion of the Confederate soldiers, a setting sun and Grant's Last Line all helped the Union Army to stave off complete destruction at the hands of the Rebels. Grant would receive reinforcements from the north on 7 April and retake the lost ground. Nevertheless, he came very close to losing his entire Army on 6 April 1862.

Lessons for Today's Fire Support Officers (FSOs). The tactical mistakes and scores of casualties for both Armies fighting at the Hornet's Nest provide some valuable lessons for today's fire support officers. Terms such as "combined arms" and "synchronization of fires" weren't exactly doctrinal phrases in 1862. However, the use of Ruggles' batteries and the infantry to collapse the Union flanks at the Hornet's Nest is an excellent example of how to bring fire support and maneuver forces to bear at a critical point on the battlefield.

Fire support coordinators from the company to brigade levels must decide early in the planning process where fires will be needed most. If the cliché that "no plan ever survives enemy contact intact" becomes reality, then the fire support coordinators have to quickly adjust priority of fires and (or) the FA organization for combat to defeat the threat. Such was the case for the Confederate Army at Shiloh. General Ruggles realized that infantry alone could

not take the position, and he ordered massed artillery to fire on the front while the infantry closed in on the flanks of the Hornet's Nest.

The Confederate Redlegs at Shiloh offered the first glimpse of the destructive power of massed artillery. The Rebel gunners manning the batteries near Duncan Field conducted the largest concentration of artillery fire in North America up to that time.²⁴

As today's Redlegs move ahead into the 21st century, they would be well served to remember that until precision guided artillery becomes the norm, there is no substitute for bringing artillery and maneuver together at the critical point in a battle. By doing so, they can greatly increase their chances of victory and avoid their own Hornet's Nest.



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Endnotes:

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2. Grady McWhiney, *Braxton Bragg and Confederate Defeat* (New York and London, 1969), 236.
3. Ray H. Mattison, "The Vegetative Cover of the Hornet's Nest Area During the Battle of Shiloh," unpublished paper, Shiloh National Military Park Library (Shiloh, Tennessee, 1948), 7-10.
4. James Lee McDonough, *Shiloh—In Hell Before Night* (Knoxville: University of Tennessee Press, 1977), 144-145; Donald F. Dosch, "The Hornet's Nest at Shiloh," unpublished paper, Shiloh National Military Park Library (Shiloh, Tennessee, 1977), 4-5.
5. John B. Lindsley, Ed., *The Military Annals of Tennessee* (Nashville: J. M. Lindsley & Co. Publishers, 1886), 211.
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7. Wiley Sword, *Shiloh: Bloody April* (New York: William Morrow and Company, 1974), 248.
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9. Sword, 249.
10. O. Edward Cunningham, *Shiloh and the Western Campaign of 1862* (Baton Rouge: Louisiana State University Press, 1966), 353.
11. "War of the Rebellion," 491.
12. *Ibid.*, 493.
13. Don C. Seltz, *Braxton Bragg, General of the Confederacy* (Columbia, South Carolina: The State Company, 1924), 43.
14. "War of the Rebellion," 574.
15. *Ibid.*
16. *Ibid.*, 578.
17. McDonough, 143.
18. "War of the Rebellion," 472.
19. Larry J. Daniel, *Cannoneers in Gray* (Tuscaloosa: University of Alabama Press, 1984), 37.
20. *Ibid.*
21. *Ibid.*, 38.
22. *Ibid.*, 39.
23. Cunningham, 401.
24. McDonough, 166.
25. Daniel, *Cannoneers in Gray*, 229.



The Operational Use of Artillery in the War of Granada 1482-1492

by Major Prisco R. Hernandez, ARNG

“The Christians attacked us from all sides in a vast torrent, company after company, smiting us with zeal and resolution like locusts in the multitude of their cavalry and weapons....When we became weak, they camped in our territory and smote us, town after town, bringing many large cannons that demolished the impregnable walls of the towns, attacking them energetically during the siege for many months and days, with zeal and determination.”¹

Throughout its history, artillery has been the classic combat arm of destruction. In offensive operations, its firepower has created opportunities for decisive infantry or cavalry maneuver. In the defense, it has attrited the enemy or caused him to halt his assault.

Only rarely has artillery of itself been a decisive arm in battle.² In the realm of operational art, this has been an even rarer occurrence. However, history does offer some examples of the use of artillery as the dominant combat arm at the operational level. One of the earliest and most notable occurred during the War of Granada from 1482 to 1492.³

The purpose of this article is not to offer a complete history of the War of Granada, but to consider why artillery was recognized as the decisive weapon by the Spanish rulers and how they organized and employed it at the opera-

Second Place



tional level to strike at the enemy's center of gravity. Using this approach, the rulers of Spain won campaigns in Granada and, ultimately, the war. To understand the role artillery played in the War of Granada, it is first necessary to understand the political and strategic situation of the opposing sides, the geography of the theater of operations and the personalities of the leaders involved.

The Theater of Operations. The final war fought by the Spanish against the Moorish kingdom of Granada was the culmination of more than eight centuries of ethnic and religious conflict between the Muslim North African invaders and the Christian inhabitants of the Iberian Peninsula.⁴ The wars of the *Reconquista*, as the struggle was named by the Christians, had gradually turned in the Christians' favor so that by the 15th century, the Muslims of Granada were clearly on the defensive.⁵ Of all the various Islamic kingdoms that had flourished in Spanish and Portuguese territory since the Moorish invasion, only Granada survived.

The kingdom of Granada occupied the southeastern most corner of Spain. Granada was encircled by a formidable natural barrier of tall mountainous ranges and bordered by the sunny Mediterranean coast. Its prosperous cities nestled among the high plateaus and rich agricultural lands of the high valleys. Granada, the capital of the kingdom, was a wealthy commercial city, exporting rich silks, leather products, fruit and metalwork.

But the kingdom of Granada was prey to an unstable system of dynastic family rivalries and weak rulers. When war broke out against Spain, Granada was

experiencing civil strife between Muhammad Abu Abd Allah, known to the Spaniards as Boabdil, and his father Abu al-Hassan Ali. Later, when Abu al-Hassan fell ill, the struggle was renewed by his brother, Muhammad al-Zagal. In the end, this protracted and debilitating struggle proved to be fatal to the kingdom. Nevertheless, Granada was protected by the rugged geography of southern Spain, and its inhabitants formed disciplined militias founded on a strong military tradition.⁶

The Road to War. When war broke out in the winter of 1481, it was as a result of a border dispute between feudal frontier landholders on both sides. The town of Zahara was surprised and taken by a Moorish raiding party. The Spaniards retaliated by taking the town of Alhama, deep in Moorish territory.⁷ This pattern of raid and counter-raid was a common occurrence along the Granadan frontier and would normally lead to skirmishing followed by an uneasy stalemate and perhaps the exchange of prisoners and captured towns. However, by this time the throne of Spain was shared by Fernando of Aragon and Isabel of Castile.⁸ Their marriage united the two major Spanish kingdoms of Castile and Aragon and launched Spain as a dominant European power in the late 15th century.⁹

The new monarchs proved to be unusually decisive and strong rulers who believed that complete hegemony over Spanish territory was in their best interest, strengthening central authority and ensuring the unity of the Christian faith. In their view, the time for a definitive decision in the age-old struggle between the cross and the crescent had finally come. Thus, the budding war took on the character of a religious as well as a national crusade to expel Muslims from Christian territory once and for all.¹⁰

The two monarchs were well suited to the enterprise. Fernando had been knighted at an early age and had first tasted war at age 17 when he accompanied his father in the campaign against Catalan rebels.¹¹ As a young king, he led Spanish forces to victory at the field of Toro against the Portuguese claimant to the throne of Castile.¹² In the war against Granada, Fernando assumed operational command of the Spanish forces and often personally led them on the field.

Isabel had grown up in the shadow of her weak half-brother, Enrique IV of Castile. His reign was characterized by turmoil and strife between the king and

the *grandees*, the members of the upper nobility. When rebellious nobles declared Enrique impotent and his daughter Juana a bastard, the crown of Castile was offered to Isabel's older brother, Alfonso. The young prince died shortly thereafter, as did the embattled king. The rebellious nobles then offered the crown of Castile to princess Isabel, and she accepted. Thus, the 23-year-old Isabel became queen of Castile, defending her rights by force of arms against all rival claimants.¹³

From the moment of her accession to the throne, Isabel exhibited superior leadership traits and a rare gift for command. At her coronation, she insisted on having the ceremonial sword of Castile—the symbol of power over life and death—carried unsheathed before her, a very rare event in the coronation of queens.¹⁴

Birth of the Spanish Artillery. Isabel was indeed a war-like and strong-willed queen. She was an excellent horsewoman who thought nothing of spending long hours in the saddle, even when pregnant. On numerous occasions, she wore armor to inspire her troops when inspecting forward siege trenches. In a very real sense, the queen took overall command of the Spanish army, most particularly of its strategic employment and its administration.¹⁵ She developed the administrative, logistical and medical services of the army to an unprecedented level of organization.¹⁶

Even more significantly, she identified the enemy's operational center of gravity in the fortified cities and castles of the Granadan realm.¹⁷ In this matter, Isabel fully appreciated the significance of gunpowder artillery and envisioned its possibilities for the coming campaign. Her reasoning was brutally simple: castles and fortified cities had to be taken and artillery was by far the most effective weapon against such strongholds. Therefore, artillery would be the decisive weapon.

Having reached this conclusion, the queen spared no effort to secure the needed artillery train. Like a new Saint Barbara, Isabel took the artillery under her personal patronage.¹⁸ She spent large amounts of scarce funds to purchase or build a modern artillery arsenal.¹⁹ She engaged expert master gunners and gun founders from France, Germany and Italy, and established a well-regulated artillery service.²⁰ Through her single-mindedness of purpose and sustained efforts, Isabel built an artillery park that



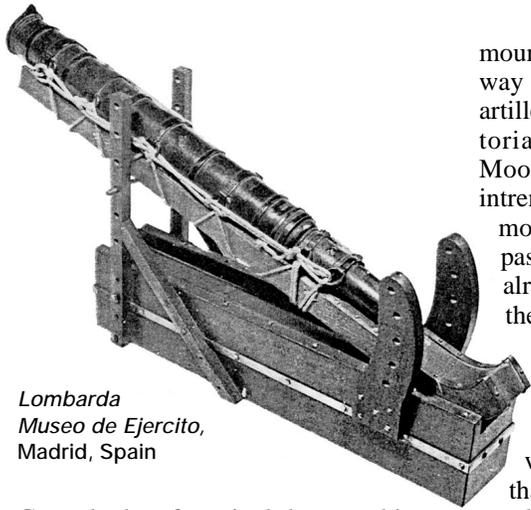
Painting of Fernando and Isabel praying to Saints Helen and Barbara, respectively.

became the largest and most modern in Europe.²¹

El Artillero. The queen entrusted command of her artillery to her capable secretary, Francisco Ramírez de Madrid, who became known as *El Artillero* or "The Artilleryman." Ramírez was an *escribano*, a professional scribe and administrator. Although his family was not poor, he was a commoner.²² As such, he was comparatively free of the chivalric prejudices and conservatism that affected the more renowned captains and the *grandees* of Spain.²³

Ramírez had become an ardent supporter of the queen ever since the campaigns against the Portuguese following her accession to the throne. He was given posts of increasing responsibility and distinguished himself in the war against the Portuguese as a captain of cavalry.

After the war, Ramírez was put in charge of various fortresses whose arsenals included large quantities of artillery. He became technically competent in what then were considered the arcane arts of gunpowder mixing and gunnery.²⁴ His administrative skills and knowledge of logistics also proved invaluable to his later success as captain-general of the artillery in the War of Granada. In the campaigns against



Lombarda
Museo de Ejercito,
Madrid, Spain

Granada, he often sited the guns himself and took personal command of the bombardment.²⁵

Under his capable leadership, the Spanish artillery arm grew into a large disciplined corps of master gunners, cannoners and trained assistants. It also included a large dedicated transport and pioneer corps that gave the Spanish artillery train operational mobility. The wide array of pieces used included large siege bombards known in Spain as *lombardas*.²⁶ Smaller pieces were known as *sierpes*, *falconetes* and *pedreras*, or collectively as *tiros de piedra*.²⁷ Also in use were *ribadoquines*, small organ guns that were used to cover breaches by fire. The projectiles were primarily round shot made of stone, iron or marble.²⁸

The Employment of Artillery. In the war against Granada, artillery truly came of age as the decisive weapon. As the campaigns progressed, it became increasingly evident to both sides that the operational center of gravity of the kingdom of Granada was indeed the cities and their surrounding fertile countryside. The Muslims relied on a defensive strategy heavily based on the mountainous terrain that encircled their kingdom. The rugged sierras of southern Spain formed a barrier that afforded protection to the principal cities. The few narrow passes were guarded by strong castles; forces would often lie in ambush to intercept or interdict Spanish columns. One such large-scale ambush nearly annihilated a Spanish expeditionary force crossing a narrow defile into the mountains of the Axarquía.²⁹

Nonetheless, the persistence and determination of the Spanish rulers defied the harshest natural barriers, astonishing and disheartening the Moorish defenders. For example, in preparation for the siege of the fortified town of Loja, the Spaniards cut passes in the rugged

mountains and built causeways to make way for the vitally important train of artillery. In the words of American historian William H. Prescott, "The Moorish fortresses were frequently entrenched [sic.] in the depths of some mountain labyrinth, whose rugged passes were scarcely accessible to cavalry. An immense body of pioneers, therefore, was constantly employed in constructing roads for the artillery across these sierras, by leveling mountains, filling up the intervening valleys with rocks, or with cork trees and other timber that grew prolific in the wilderness, and throwing bridges across the torrents and the precipitous *barrancos*."³⁰

As a result of such efforts, the Moorish garrisons, perched on their mountain fastness, beheld with astonishment the heavy trains of artillery emerging from the passes where hunters had scarcely been known to venture. The walls around their cities, although lofty, were not thick enough to withstand the assaults of these formidable engines for long.³¹

The key port city of Malaga fell after a brutal siege in which hundreds of cannon balls crashed against its proud walls and eventually breached them. The bulk of the artillery used in this operation was transported by sea, but the heavier pieces were laboriously brought overland in carts drawn by hundreds of draught animals.³²

Other fortresses were not as persistent. For example, the defenders of the fortified castle of Cambil surrendered after the Spanish *lombardas* fired a few shots at their stout walls. The garrison of Alhabar, Cambil's twin fortress, surrendered when they sighted the dreaded Spanish artillery train.³³ Even "impregnable" Ronda, built on the crest of a formidable escarpment, fell to the Spanish guns.³⁴ One by one, the key cities and towns of Granada capitulated before the irresistible power of the Spanish artillery.

In the end, the weakness and indecisiveness of the political leadership of Granada proved fatal to the kingdom. Boabdil offered to surrender the city in exchange for his personal safety and some very minor concessions.³⁵ The political will to resist was gone. Arguably, it was the presence of the Spanish train of artillery before the vulnerable walls of the city that convinced Boabdil that all further resistance would be in vain.

The War of Granada was waged principally by means of a strategy of attri-

tion and the systematic reduction of strongholds. Attrition at the operational level was effected primarily through a persisting logistics strategy.³⁶ From the second year of the war, 30,000 foragers demolished farmhouses, granaries, and mills (the last, numerous in a land watered by many small streams); eradicated the vines; and lay waste to olive-gardens and plantations of oranges, almonds, mulberries and all the rich varieties that grew luxuriant in this highly favored region. This merciless devastation extended for more than two leagues on either side of the line of march. At the same time the Mediterranean fleet cut off all supplies from the Barbary coast, so the entire kingdom was in a state of perpetual blockade.³⁶

Artillery, the classic weapon of tactical attrition, was used primarily against fortifications correctly identified by the Spanish leaders as the operational centers of gravity of the Granadan kingdom.³⁷ Thus, artillery, without losing its tactical role, caused operational effects against high-payoff targets (HPTs) and proved decisive in defeating the enemy.

The Lessons of History. What lessons may we draw from this long-fought campaign? First, the necessity of clear vision to embrace promising nontraditional weapons, even when they are not fully accepted by the military establishment of the day. Isabel of Castile did this when she decided to fund and develop the artillery arm.

Second, new weapons are useless unless innovative field commanders understand their capabilities and devise creative ways of exploiting them. In Francisco Ramírez de Madrid, Isabel found an officer with the courage, knowledge and energy to exploit gunpowder artillery to its fullest potential.

Third, weapons are most effective when they target enemy weaknesses. They can be decisive when they are employed against the enemy's center of gravity. In this case, gunpowder artillery achieved operational significance because it was used against the Granadan fortified cities and castles.

Fourth, weapons are only effective if they can be deployed against the enemy in the correct time and place. To this end, Spanish leaders carved routes out of the roughest mountains and persisted in bringing difficult sieges to completion.

Last, operational plans must provide logistical support for key weapons systems. To accomplish this, Isabel developed and managed a complete array of

logistical services for artillery transportation and ammunition resupply. Equally significant was the logistical and administrative expertise exhibited by Francisco Ramírez de Madrid, the captain-general of the artillery.

In the modern digitized battlefield and given the right conditions, artillery may once more become an operationally decisive weapon by targeting HPTs that are at or lie close to the enemy's center of gravity. The flexibility, precision and lethality of the next-generation Crusader howitzer system, multiple-launch rocket system (MLRS), Army tactical missile system (ATACMS) and their family of munitions combined with the enhanced real-time target acquisition satellites, unmanned aerial vehicles (UAVs) and precision radar will create opportunities for the artillery to destroy operationally significant targets. The challenge to Field Artillery leaders in this new environment is to develop tactics, techniques and procedures (TTP) that maximize their new weapons' capabilities.³⁸

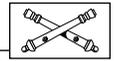
The weapons establish a new tactical and operational paradigm, but the full possibilities of the new artillery only can be realized by leaders who are cognizant of its capabilities and understand the tactical and operational aspects of the military art.

In addition, the new artillery may require a different organization for combat. Just as Queen Isabel had to reorganize the Spanish Corps of Artillery, it may be necessary to re-examine the current modified table of organization and equipment (MTOE) and the command and support relationships between artillery and the maneuver arms.³⁹

Finally, the logistics requirements of the new artillery cannot be overlooked. The entire support and maintenance system must be as mobile and protected as the artillery pieces it supports.

Today's Redlegs must not only fulfill their traditional role as the principal attrition-producing arm of the combined arms team, but also, as the situation demands, deliver the decisive offensive

blow at the operational level of war. Now as often in the past, artillery professionals stand at the cutting edge.



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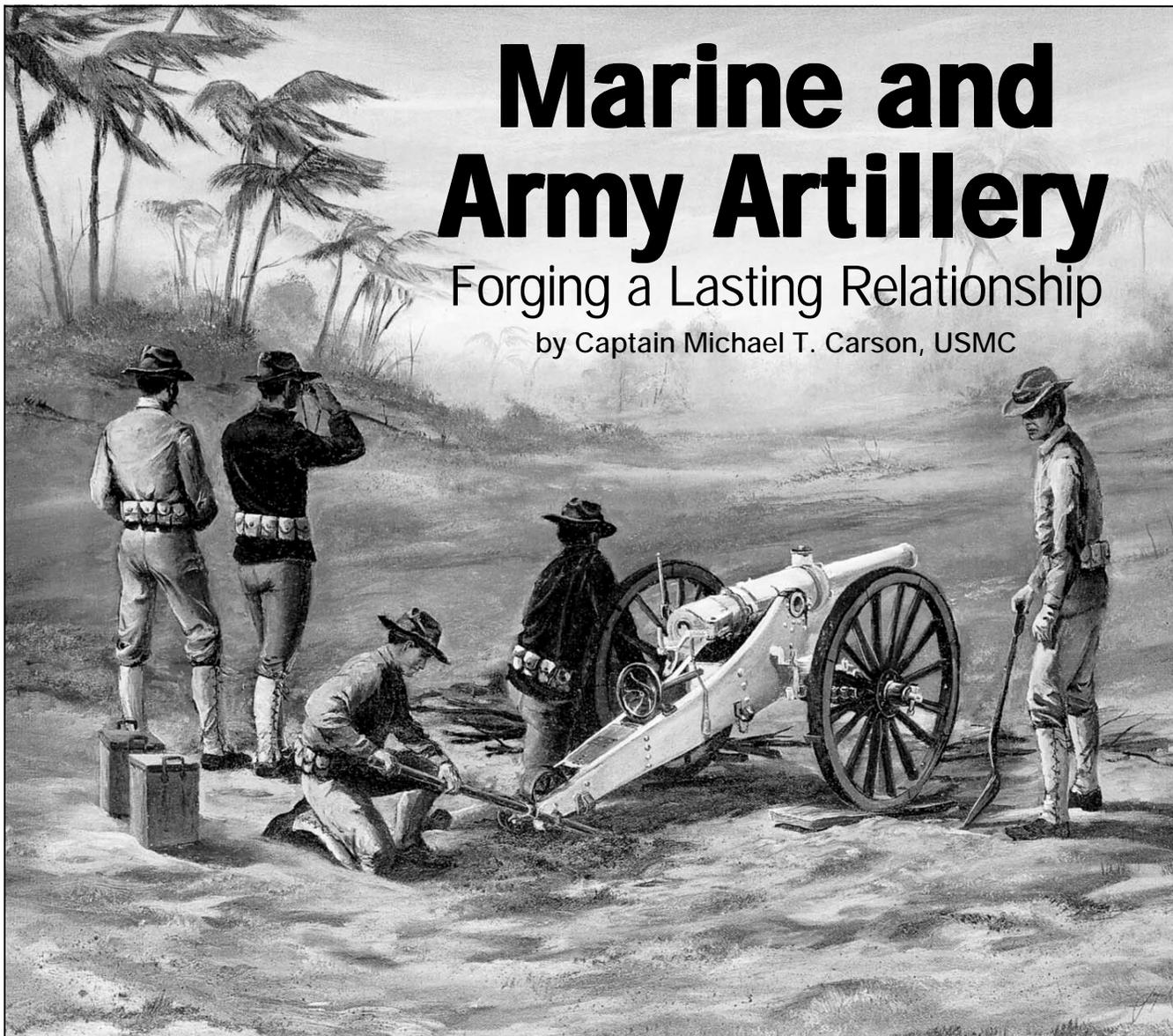
Endnotes:

1. Norman Housley, *The Later Crusades: From Lyons to Alcazar (1274-1580)* (Oxford: Oxford University Press, 1992), 299.
2. There are always exceptions that prove the rule. For examples of decisive use of artillery at the tactical level, see Major R. Powl Smith, Jr., "Staying on the Cutting Edge: Military Professionalism and the Mexican War," *Field Artillery* (July-August 1998), 5-10.
3. Other early campaigns in which artillery had a major impact were in the final phase of the Hundred Years' War in France and the Turkish conquest of Constantinople. See John Keegan, *A History of Warfare*, (New York: Vintage Books, 1994), 320.
4. For a concise history of Islamic Spain, see Richard Fletcher, *Moorish Spain* (Berkeley: University of California Press, 1992).
5. The *Reconquista* was a series of separate struggles fought individually by the various Christian groups against the Moors. Américo Castro, *La Realidad Histórica de España* (Mexico City: Editorial Porrúa, 1982), 24; David Nicolle, *El Cid and the Reconquista (1050-1492)* (Osprey: London, 1988).
6. David Nicolle, *Granada 1492: The Twilight of Moorish Spain*, (London: Osprey, 1998), 30-33; Nicolle, *El Cid*, 35-39.
7. Housley, 298.
8. Many works have been written on the reign of Fernando and Isabel. Among those in English, William H. Prescott's classic *History of the Reign of Ferdinand and Isabella the Catholic* (2 Volumes, New York: Croxley, 1839), first published in 1837, is still an excellent, highly readable narrative which has aged well. However, it must be corrected in some matters by more recent findings and should be contrasted with more modern interpretations. One such study is Felipe Fernández Armesto's, *Ferdinand and Isabella* (New York: Dorset Press, 1975).
9. Technically, Fernando and Isabel reigned over separate kingdoms united only temporarily by virtue of their marriage agreement. Fernando was king of Aragon, Catalonia, Sicily and the Balearic Islands. Isabel was Queen of Castile, Leon, Galicia, Andalusia and other regions. Even though most of their decrees were issued in the name of both the king and queen, each kept a separate group of advisers and separate establishments to administer their kingdoms. The relationship worked despite the strong personalities of the monarchs because both were committed to the same ideals of unity and put the common good above individual concerns. The united Spanish throne was finally inherited by Fernando's and Isabel's grandson Charles V in 1517. See Prescott and Fernández-Armesto for detailed descriptions of the political and administrative achievements of these monarchs.
10. Housley, 29-298.
11. Fernández-Armesto, 35.
12. *Ibid.*, 20.
13. *Ibid.*, 15.
14. Prescott, vol. 1, 180.
15. *Ibid.*, vol. 1, 366.
16. *Ibid.*
17. For a definition of "center of gravity," see *FM 100-5 Operations*, (Washington DC: Headquarters, Department of the Army, 1993), 6-7. The strategic center of gravity of the kingdom of Granada was its political leadership. For the duration of their final war against the Spanish, the Moors also fought a civil war among themselves. See Nicolle, *Granada 1492*, 21-23. Granada's operational center of gravity was the fortified cities that controlled all the critical population and economic centers of the realm.
18. Luis Suárez Fernández and Juan de Mata Carriazo Arroquia, *La España de los Reyes Católicos, Historia de España*, vol. 17-1, ed. by Ramón Menéndez Pidal (Madrid: Espasa-Calpe 1969), 249.
19. Hernando del Pulgar, *Crónica de los Señores Reyes Católicos Don Fernando y Doña Isabel de Castilla y de Aragón*, ed. by Cayetano Rosell Biblioteca de Autores Españoles, vol. 70, (Madrid: Atlas, 1953), 497.
20. Prescott, vol. 1, 361.
21. "... the numbers of guns and master gunners also went up from only four master artillery men in royal service in 1479, the number had grown to 65 by late 1482 and 91 in 1485." Bert S. Hall, *Weapons and Warfare in Renaissance Europe: Gunpowder, Technology and Tactics* (Baltimore: John Hopkins University Press, 1997), 124.
22. Pedro Andrés Porrás Arboledas, *Francisco Ramirez de Madrid: primer madrileño al servicio de los Reyes Católicos* (Madrid: Imprenta de la Comunidad de Madrid, 1996), 156-159.
23. Keegan, 334.
24. Robert L. O'Connell, *Of Arms and Men: A History of War, Weapons, and Aggression*, (Oxford: Oxford University Press, 1989), 112; Porrás Arboledas, 71-72.
25. Ramirez de Madrid was knighted by King Fernando in the field of battle for his valor and personal leadership at the siege of Malaga (1487). He devised a plan to undermine and destroy the tower controlling access to a key bridge to the city. Porrás Arboledas, 156-159; Pulgar, 469.
26. In Spain the name *lombardas* appears to derive from the region of Lombardy in northern Italy. Many master gunners serving in Spain were of Lombard origin. Fernandez and Arraquia, 249.
27. J. R. Hale, *War and Society in Renaissance Europe (1450-1629)* (Baltimore: John Hopkins University Press, 1985), 49.
28. Prescott, vol. 1, 361-362. Other munitions fired by the *lombardas* were incendiary fireballs called *pellas*. *Ibid.*, 418-419.
29. Prescott, vol. 1, 340-351; Nicolle, *Granada 1492*, 45-48.
30. Prescott, vol. 1, 363.
31. *Ibid.*
32. *Ibid.*, vol. 1, 395; Nicolle, *Granada 1492*, 64-66.
33. Nicolle, *Granada 1492*, 56-57.
34. *Ibid.*
35. For a concise discussion of the negotiations leading to the surrender of Granada and the "capitulations" signed by both parties, see L. P. Harvey, *Islamic Spain 1250-1500* (Chicago: University of Chicago Press, 1990), 307-323.
36. Prescott, vol. 1, 359-360.
37. For an explanation of persisting and raiding logistics strategies, see Archer Jones, *The Art of War in the Western World* (Oxford: Oxford University Press, 1987), 693.
38. For an example, see Major Warren N. O' Donnell and Lieutenant Colonel (Retired) William A. Ross, "TTP for the Crusader Battalion: A Beginning," *Field Artillery* (November-December 1997), 16-19.
39. For an example, see Captain Timothy P. Goldfish, "The FA's New Command and Attack Battalion," *Field Artillery* (September-October 1997), 38-41; and Brigadier General Toney Stricklin, "Fires: The Cutting Edge for the 21st Century," *Field Artillery* (May-June 1998), 22-27.

Marine and Army Artillery

Forging a Lasting Relationship

by Captain Michael T. Carson, USMC



Mark 1 3-inch Rapid Fire Field Gun, USMC, 1914 (Reproduction of this print courtesy of the US FA Association)

Today, Marine and Army artillery enjoy a professional relationship that fosters education and learning from both services. More importantly, the artillery communities of both services operate together in peace and war without animosity. This has not always been true.

While soldiers and Marines have had and continue to have productive professional relationships, at times this relationship at the service level has been sacrificed for the sake of service pride. This article traces the early development of Army and Marine artillery co-training and relations from 1910 to 1939 and focuses on the lasting relationship forged between the two communities.

Birth of Marine Artillery and World War I. Prior to the formation of a formal artillery branch in the Marine Corps,

Marine officers received some training on artillery at either the School of Application or the Advance Base School, both in New London, Connecticut. The Army helped by providing copies of *Field Artillery Drill Regulations* for these courses.

Formal permanent Marine artillery was finally organized and underwent its growing pains in the second decade of this century. While Marines have served as artillerymen as early as the Revolutionary War, a permanent organized structure of artillery in the Marine Corps

was not present until the first battalion of artillery was formed in 1914; the 10th Marine Regiment traces its lineage to this battalion.

The first test for Marine artillery proper was in Nicaragua. In 1912, US Marines landed in Nicaragua to protect American interests. In August of that year, a force under Major S. D. Butler arrived in Corinto, including the 9th Company (Artillery) under Captain E. P. Fortson. In addition, a regiment was formed at Philadelphia under Colonel J. H. Pendleton. The regiment included one artillery company commanded by Captain R. O. Underwood, which consisted of several 3-inch guns.

Although Marine officers all were somewhat instructed in artillery, Captain Underwood was selected to command the artillery company because "...I had completed the course in artillery and

Third Place



had succeeded after much tedious painstaking work in solving a few problems in firing data [and, therefore,] was assigned to the command of the company with the field pieces. Those students who were found qualified to solve *one* of these problems were considered quite proficient in artillery.⁷¹ As for the rest of the Marines in the company, Captain Underwood notes, "Neither of the two junior officers of this company had ever used a field piece and none of the men had any knowledge of guns."⁷²

Colonel Pendleton's Marines arrived at Corinto on 4 September 1912 and established a strong presence in Leon and the surrounding area. Eventually Marines, sailors and Federal (Army) troops were used to help Nicaraguan government troops fight rebels. By October, the Marines and Navy troops had forced the rebels to Coyotepe and Barranca and were using Marine artillery to shell the rebel positions. Pendleton then issued an ultimatum for the rebels to evacuate their positions. General B. F. Zeledon, the rebel leader, rejected this ultimatum and the decision was made to attack.

Colonel Pendleton describes the beginning of the attack on 4 October 1912 in his 11 October report to the Commander-in-Chief of the Pacific Fleet: "Promptly at 8:00 a.m. firing was opened by Butler from the southeast, with three field guns, and by Underwood's battery from the northwest with two 3-inch field guns, at ranges varying in the case of both batteries from 1,500 to 2,500 yards, with considerable damage to the enemy's earthworks and redoubts on both the Barranca and Coyotepe."⁷³

The guns under Major Butler were later added to Captain Underwood's company. Captain Underwood describes some of the action, "During the assault,

a small field piece which was concealed in rear of the slope running from Coyotepe to La Barranca was run up into position and opened up a rapid fire at the hospital train approaching the position...to receive the wounded. At a range of 1,700 yards with previously obtained data, two shots were sufficient to cause its gunners to abandon it. But for this timely action, the hospital train might have suffered considerable damage or been destroyed."⁷⁴

While the Marines serving as artillerymen did an effective job, at least in the mind of Colonel Pendleton, Captain Underwood noticed many problems and shortfalls that, as a supporting arm, the Marine artillery must fix. "The causes which contributed mainly to the failure of the artillery to do fully what should have been required of it in this action can be attributed to three things: viz., inexperience of officers and men in the use of artillery material, faulty ammunition and fuses, and lack of cooperation between the infantry and artillery."⁷⁵

In examining the training shortfalls, Captain Underwood states, "My hastily organized company was constantly being split up for guard details, and previous to the bombardment, not a single drill was held where each man was taught his individual duty which he might have action in this machine. No one in the company had ever fired a shrapnel and were naturally disappointed to find that their action was not as prescribed in the regulations strictly, and were much at sea for a while what to do when shell after shell was fired and lost."⁷⁶

This problem of under-trained Marines would dictate which method of firing would be used. Surprisingly, indirect (vice direct fire) was considered easier and more effective. Captain Underwood explained, "Both direct and indirect laying were used, but much better results were obtained when using indirect laying even when the target could be seen plainly. The difficulty of pointing out to each gunner the exact point where his aim should rest on the lines of trenches occupied by the rebels, and keeping him on that same point in subsequent firing for close adjustment was realized practically when after firing a number of shots dispersion in both range and direction added to the already long list of difficulties. In some parts of the line for a distance of 50 yards or more, the trenches would present such a sameness of appearance that it was found

not only a difficult task, but a waste of considerable time to indicate to the gunners their point of aim."⁷⁷

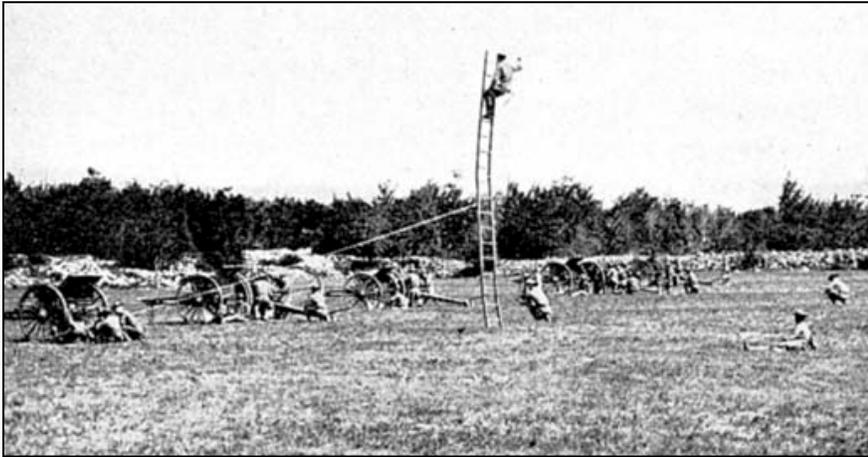
Captain Underwood believes the infantry was shortchanged in the quality of support it received and believed it could be improved. "Owing to the faulty ammunition, poor implements for handling it, and the absence of reliable communication between the infantry and artillery, the infantry received no support from the artillery.

"Had it been possible for the artillery to have cooperated with the infantry on this occasion, it is believed that nearly all opposition directed against our forces could have been forestalled by shrapnel used with either time or percussion fire. When the infantry assault began, although it was too dark to distinguish between friend and enemy, I could plainly see the rebels rising from the trenches they had abandoned the previous day, and had again occupied during the night, to fire their rifles and machine guns at our troops as they advanced toward the position. It occurred to me that in such a position as this, it is the artilleryman's duty to act without orders, but in this particular instance faulty ammunition and the absence of reliable communication would have made it a very hazardous undertaking."⁷⁸

Although extremely critical of the problems artillery had in providing perfect support for the infantry, it is exactly this hard, realistic self-evaluation and the actions to correct the noted deficiencies that would allow the Marine artillery to be viable. Corrective action began in 1913 with Marines attending an artillery school conducted by the Army at Tobyhanna, Pennsylvania. Six Marine officers attended this course of instruction under Major Charles P. Summerall, US Army. The course provided the same instruction given to the Army officers of the Field Artillery branch.

Captain Underwood remarked about the course, "The Navy Department on this occasion furnished 100 rounds of ammunition, and each officer was allowed to fire several problems. The attention given the Marine officers at this camp by Maj. Summerall and the officers attached to his command has proven of very great benefit to our service and the hospitality extended to us will be long remembered."⁷⁹

The course was important because it provided the Marine Corps some formally trained artillerymen, which aided

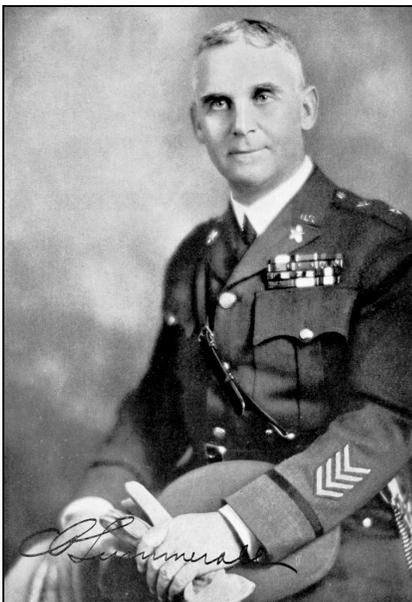


In 1913, six Marine officers attended an artillery school conducted by the Army at Tobyhanna, Pennsylvania.

in the quality of support to the infantry during operations in the Dominican Republic and Haiti. Moreover, it established the start of a professional training relationship between the Army and Marine Corps.

World War I would be an important opportunity for Marine artillery to demonstrate its ability—if it could get into the fight. Although capable and ready to be deployed to Europe, Marine artillery struggled to be employed. This failure to participate in World War I marks the low point in Marine and Army artillery relations.

In 1918, the 10th Regiment, the first artillery regiment in the Marine Corps, was organized. The catalyst for this or-



Major Summerall, shown here as a Major General, taught Marine officers the same course of instruction that Field Artillery Army officers received.

ganization was the Commandant of the Marine Corps, Major General George Barnett. He attempted to get a Marine division in the fight in Europe. To accomplish this, the division needed an artillery regiment to support its infantry regiments. The Commandant was successful in getting a Marine brigade to Europe. However, the Army was not interested in having Marine artillery help in the war effort. The War Department stated the Marines could not be of use because they were armed with 3-inch field guns, which were logistically not suitable as the Army used 75-mm guns in Europe.

It is interesting that in the opinion of Colonel A. A. Fleming, US Army Commanding Officer of the School of Fire, Fort Sill, Oklahoma, the 3-inch field gun was superior to the French 75. His opinion was based on tests conducted by the School of Fire in early 1918. In his 15 March 1918 report, he states, "Unless arrangements have gone so far that very serious delay would result, the school recommends most decidedly that the American gun and not the French be adopted as standard."¹⁰ It was too late. The decision to use the French 75s had been made.

The Navy Department attempted to rectify this logistical incompatibility by ordering 24 French 75s for the 10th Regiment in early 1918. Unfortunately, they were not delivered until near the end of the war.

While all this top-echelon maneuvering to have Marine artillerymen fight in World War I was occurring, Marine artillerymen focused on their purpose: to support the Marine infantrymen. To successfully support their infantry brothers in the trench style of warfare being

fought, an aggressive training program was implemented. Although still armed with 3-inch field guns, the Marines were eager to learn and practice the tactics used in Europe. This manifested itself in early 1918 when the 2d Battalion, 10th Regiment fired a creeping barrage over the heads of infantrymen for the first time in America.¹¹

While no Marine artillery unit served on the front lines in Europe, several Marine artillerymen did. Major E. H. Brainard served as the commanding officer of an Army artillery battalion during the Meuse-Argonne operations.¹² Colonel R. H. Dunlap was the most visible Marine to serve. In March 1918, he went to Europe to be part of Admiral Sims' staff. He then commanded the 17th Regular Field Artillery Regiment in the 2d Division (commanded by General John A. Lejeune) from 31 October 1918 until 10 January 1919. During this period, the regiment fought in the Meuse-Argonne Campaign (1 to 11 November 1918) and subsequently advanced to and occupied the Coblentz bridgehead section of the Rhine Valley. Colonel Dunlap was awarded the Navy Cross for leadership during these operations.

As the foremost artillery expert in the Marine Corps and having served in World War I with the Army, Dunlap offers insight into why Marine artillery as an organization was left back in the United States. This is especially disturbing as newly formed and little trained Army artillery units were sent over to Europe while trained and prepared Marine artillery units were left behind. In his 28 February 1919 letter to the Commandant of the Marine Corps, Colonel Dunlap states that the only written arguments the Army had against the use of any Marines were the differences in the pay system and uniforms.¹³ Colonel Dunlap believed the unstated reason for the resistance to the use of the Marines was "...the Army believed, (those who controlled the policy in this matter), that it was an Army war, that Marines had no business in it, that they were not desired for such service. It can readily be seen then, that 'win the war' was not a factor in considering the use of Marines, and that jealousy was."¹⁴

The effects were devastating for the Marine artillery. Colonel Dunlap states, "Regarding Marine Artillery, the situation is worse, for here the same disappointed lot of young men exist and in addition there is a feeling among the

officers and men of this Artillery (since they were among the first prepared to go overseas) that had they chosen any other branch of Marine service they, probably, would have been among the first to go—the result is that Artillery is somewhat in disrepute, especially among those who had devoted all their energy and intelligence towards making it the fine organization it, undoubtedly, was.”¹⁵

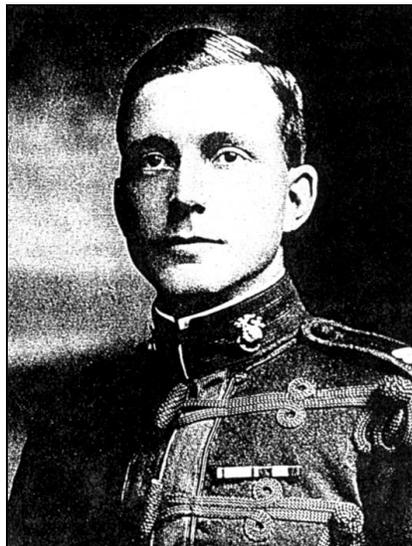
In addition, Colonel Dunlap goes on to state another problem that resulted from the lack of Marines serving as artillerymen in World War I: “...many lessons gained during the war by the Artillery, which participated, have been lost to us, through our lack of participation. Only the best organization, the keenest study and the most severe application and training can compensate for this loss.”¹⁶ This entire episode is unfortunate and only through hard work and realistic training could it hope to be avoided again. However, the Marine artillery first had to survive within the Marine Corps to be used in any future conflict.

Post World War I and the 1920s. While World War I allowed the Marine Corps to showcase itself as a fighting organization with gallant performances at Belleau Wood and the like, it also provided a time of uncertainty for Marine artillery. Having no organized Marine Field Artillery unit in the fighting caused many people, including Marine artillerymen, to question the need for Marine artillery in the post-World War I Marine Corps.

In his letter to the Commandant, Colonel Dunlap states, “In the first instance (the pride and spirit of artillerymen) mentioned above, officers who have always been the keenest enthusiasts regarding Artillery are going back to other work—not with the same enthusiasm as before, but with a feeling that no matter how hard one might work or believe in the branch of service, its use in the Marine Corps is too limited and too liable to be interfered with by the Army should further necessity arise for its use to warrant the time.”¹⁷

The artillerymen were not the only ones affected. Others in the Marine Corps questioned why the Marine Corps needed its own artillery and why the Army couldn’t provide it.

In fact, in his oral history interview in 1973, Lieutenant General Pedro A. del Valle, Commander of the 11th Marines at Guadalcanal and of the 1st Marine



Colonel R. H. Dunlap, shown here as a Captain, was the most visible Marine artilleryman to serve in World War I.

Division at the Battle of Okinawa, claims that General J. C. Breckinridge stated, “We’re damn good infantry, and that’s what we are. We ought to stick to that.”¹⁸ General Breckinridge was the 1930s educational leader in the Marine Corps.

To counter this notion of the Marine Corps not having its own organic artillery, then Captain del Valle published the article “Marine Corps Artillery” in the December 1920 issue of the *Marine Corps Gazette*. In the article, he lists four main reasons why the proponents of Marines’ not having their own artillery were wrong. The first was that artillery is a lifesaver. Captain del Valle notes the service of Marine artillery in the Dominican Republic and Santo Domingo City where the threat of artillery allowed the Marines to seize the city without the loss of blood.

The argument that Marines are only infantry was rebutted by his statement, “The artillery training has never yet impaired our usefulness as infantry.”¹⁹ While it does take some time away from training on infantry skills to train on artillery skills, when the need has arisen for Marine artillerymen to serve as infantrymen, the challenge always has been met.

The third argument presented was his most compelling. Captain del Valle argued, “...if any of the jobs assigned to the Marine Corps in any way require artillery and we have none of our own, but must depend on the Army, what would be the result? The Marine Corps’ dependent upon another branch of service for fulfilling its purposes. Half the

reason for our existence gone.”²⁰ He goes on to state, “There is to be considered in this connection also the fact that a situation requiring Marines, such as landing on foreign territory without a declaration of war, would necessarily preclude the use of Army troops.”²¹

Finally, Captain del Valle noted that for years Marine infantrymen have always been associated with ships’ guns. “Why argue, then, against artillery in the Marine Corps when for years we have successfully handled guns and come through fit as ever for an infantry job.”²² Captain del Valle concluded his article: “The calls for independent action on our part are too numerous and the experiences we have had too convincing to leave any doubt as to the wisdom of artillery of our own, properly trained and equipped to handle our batteries, yet first, last and always ready for use as infantry, our first and most important function.”²³

The threat to disband Marine Corps artillery was taken seriously. Events in a similarly organized Marine Corps, the British Royal Marines, for budgetary reasons abolished their Royal Marine Artillery based on the argument, “...a Marine Corps equipped and organized for effective action ‘duplicates’ an Army.”²⁴ To prevent a similar abolishment, the Marine Corps and Marine artillery had to find a new role. Marines started to consider how an advance base would not only be occupied and defended but possibly even seized from a defender. Whatever mission the Marines needed to fulfill, training and education were key. As in the past, Army artillery became a pivotal link in this process.

During the 1920s and 1930s, Marine and Army artillery actively helped each other. In 1925, the 10th Regiment at Quantico, Virginia, trained strenuously. After returning from the joint Army and Navy Fleet exercise in Hawaii (most of the regiment’s personnel went, but not the guns), the regiment prepared for training at Camp Meade, Maryland. In August at Camp Meade, the 10th Regiment shared ranges with the Army’s 16th Field Artillery (75-mm, horse drawn from Fort Myer, Virginia). Major R. E. D. Hoyle, commander of the 16th Field Artillery Regiment, was extremely helpful to the Marines. In fact, Major H. W. Stone, the Commander of the 10th Marines stated, “Major Hoyle designated three experienced officers, all graduates or former instructors at the Field Artillery School of Fire...to con-



Today's Marine M198 155-mm Howitzer. The Marines have developed tactics and techniques for employing artillery in amphibious operations and now are developing tactics and techniques for the use of artillery in operational maneuver from the sea (OMFTS) and ship-to-objective maneuver (STOM) operations.

duct the critiques held immediately after the firing of each problem, and to lecture to officers after supper, in the evening...."²⁵ Major Stone considered the instruction from the Army to be of greater value than the training at Quantico. "Although satisfactory progress had been made in the preliminary training at Quantico, where the regiment habitually is required to spend the forenoon periods on maintenance work, the progress made in the later training at Camp Meade, without interruptions of any kind, associated with veteran artillerymen of the Army, resulted in a higher state of training and morale than had been previously realized to my knowledge."²⁶

Upon returning to Quantico, Major Stone received a letter from Major Hoyle dated 21 September 1925 that states the positive experience the training exercise provided both artillery services. The letter concludes, "Please express to your officers our appreciation of their fine spirit and cooperation. We trust we may serve next to the Tenth Regiment again, be it peace or war."²⁷

In 1931, Marine artillery reciprocated by testing landing operation techniques for the Army's artillery. At the request of the Army, the Commandant of the Marine Corps had Marine artillery test the feasibility of landing a horse-drawn 75-mm gun battery from a 50-foot boat at Quantico. This was in preparation for the Army-Navy maneuvers in Hawaii scheduled for 1932. The test demonstrated that a landing could be accomplished but that it would require near perfect surf conditions.²⁸ In addition,

the test helped the Marines develop artillery doctrine in amphibious operations.

Education of Marine Artillerymen. The entire experience of training with Army artillery was very beneficial for Marine artillerymen. Once again, it showed Army soldiers being extremely helpful to the Marines. However, it also highlighted a problem—the lack of formal artillery instruction for Marines. Again, the Army helped the Marine Corps in this process.

Colonel Dunlap, the Commanding Officer of Marine Corps Schools at the time, addressed this issue, "...our officers are sent to Army technical schools, etc., and this year officers have been sent to the Field Artillery School at Fort Sill. This last assignment may be said to be one of the most important steps taken in late years. The Marine Artillery Regiment has always been an excellent unit, but it has never had officers attached who have had the advantages that the Army Field Artillery School can provide.

"When we consider the number of Field Artillery units which would have to be manned were we to engage in a campaign requiring our maximum effort in support of the Fleet, it can be readily understood how essential it is that our officers should have every advantage in training possible to obtain."²⁹

The amount of time devoted in Marine schools to artillery was inadequate. For example, the Field Officer Course had a total of 30 hours "...devoted to the tactics and techniques of artillery."³⁰ The Marine Corps began to take corrective action by sending Marines for artillery training at Fort Sill. Major Emile P.

Moses graduated from the Artillery Advanced Course in 1926. Two other officers, Roscoe Arnett and Blythe G. Jones, graduated from the Battery Officer Course the same year. Almost every year since then, Marines have attended some kind of course on artillery at Fort Sill.³¹

By the mid-1930s, Marines received their initial artillery training at one of several places. The Base Defense Weapons School at Quantico focused on all three types of artillery—coast, anti-aircraft and field—but not nearly to the same degree of detail as one of the Army's formal schools. Fort Monroe, Virginia, had the Army school for coast artillery and Fort Sill was the Army's school for Field Artillery. Marines would attend one of these schools if they did not attend the Base Defense Weapons School. Usually this was only after Marines had served their first fleet tour.

Fort Sill, as the premier artillery school in the United States, prepared the students well for their responsibilities as artillerymen. In fact, students were expected to complete a 300-hour correspondence course on artillery prior to attending the school.³² Fort Sill provided first-class equipment in sufficient quantity to go along with quality instructors who produced competent Marine artillerymen.

However, it wasn't long before the Commandant of the Marine Corps considered not sending Marines to Army schools. This was due, in part, because of the belief that the school at Quantico was equal if not superior to the Army's school at Fort Sill.

The idea of not sending Marines to Fort Sill for training as artillerymen met bitter opposition, especially from those Marines who had been through the Army school. As one Marine artilleryman recalls, "...the battalion commander.... had attended the Army Field Artillery School 10 years before and knew the quality of the instruction....He asked me what I thought about the Commandant's decision. I told him I thought that it would be ruinous to the development of efficient Marine Corps Field Artillery. He...wanted me to prepare a memorandum concerning the matter which he would present to the Commandant in the hope that he could be persuaded to change his decision and continue to send Marine officers to the Army School."³³

The Commandant's decision to keep sending Marines to Fort Sill greatly influenced the performance of Marine Artillery during World War II. As one Marine states, "Those 25 officers who attended the school between 1936-1941 just about made the Marine Corps artillery what it was during World War II. They became the regimental operations officers and the battalion commanders in the artillery regiments of every division, and if they had not had the opportunity to go to the school and receive the training which was given there, it would have been utterly impossible for the field artillery of the Marine Corps to have attained the standard of excellence that it did."³⁴

Relevance for Today. Today the Marine-Army artillery co-training and relationship forged in the early years ensures consistent artillery procedures between the services. Currently, the

Marine Corps provides the FA School at Fort Sill highly qualified enlisted Marines and officers to serve as instructors for both Army and Marine students. Marines and soldiers use the same gunnery, gunline and observed fire procedures. This allows warriors from either service to receive effective artillery support from the other service. This co-training will continue as digital command and control systems are developed and fielded, such as the advanced Field Artillery tactical data system (AFATDS).

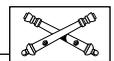
While Marine-Army artillery has much in common, the differences are equally important and valuable to the nation. Artillery in both services requires the development of varied employment techniques. The Army artillery focuses on developing airborne and air assault procedures for its artillery and heavy artillery operations for land warfare. The Marines have developed procedures and techniques for employing artillery in amphibious operations and are developing the use of artillery in operational maneuver from the sea (OMFTS) and ship-to-objective maneuver (STOM) operations.

Marine artillery contributions to US Artillery operations include developing supporting arms coordination for air, naval gunfire (naval surface fire support), artillery and mortars, as well as creating suppression of enemy air defense (SEAD) operations during the Korean War, to name a couple. This only could be achieved by having a solid relationship between the Marine Corps and Army.

Finally, while some may call for the expansion of the Multiple-Launch

Rocket System (MLRS) Memorandum of Agreement (MOA) between the Army and Marines to include the Army's providing the Marine Corps all artillery, this would be unwise. Success in future operations, such as OMFTS and STOM, will require the development of Marine-unique integrated artillery doctrine, equipment and procedures.

Marine-Army artillerymen continue to co-train and have forged a lasting relationship that benefits both services and the nation. While this relationship has been rocky at times, it has survived to become vibrant and complementary. This is the strength of the Marine-Army artillery relationship.



Captain Michael T. Carson, US Marine Corps, won third place in the US Field Artillery Association's 1999 History Writing Contest with this article. He commands I Battery, 3d Battalion, 12th Marines at Camp Lejeune, North Carolina, and is deployed to Okinawa, Japan. In previous assignments, he served as an Instructor/Staff Platoon Commander at The Basic Course, Quantico, Virginia; Fire Support Coordinator for the 2d Light Armored Reconnaissance Battalion at Camp Lejeune; and as Executive Officer, Fire Direction Officer, Liaison Officer and Forward Observer in S Battery, 5th Battalion, 10th Marines, also at Camp Lejeune. He's a graduate of the Field Artillery Officer Advanced Course, Fort Sill, Oklahoma. The author wishes to thank Captain Darryl Dotson, an Instructor at Basic School at Quantico, Virginia, for his help in writing this article.

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Honorable Mention



One Man's Vision The Evolution of Airmobile Artillery

by Major Steven M. Leonard, OD

Under the cover of darkness on 23 February 1991, G-Day minus one, the UH-60 Blackhawk helicopters from Delta Troop, 2d Squadron, 17th Cavalry shuttled 100 kilometers deep into the Iraqi desert. Their mission was to insert the first of four long-range surveillance detachments (LRSDs) into a bleak expanse of sand and dust known only as forward operating base (FOB) Cobra.

Three of the six-man teams began searching for signs of activity on Cobra; the fourth reconnoitered farther north along Main Supply Route (MSR) Texas, the two-lane highway that linked the Saudi Arabian border village of Rafha with Iraqi Highway 8.¹ As the allied ground campaign prepared to begin, more than 5,000 soldiers of the 101st Airborne Division (Air Assault) completed their final pre-combat inspections, readying themselves for the most massive helicopter assault in history.²

At 0700 hours, the throb of helicopter rotors echoed through the desert. When the assault force touched down in Cobra, a battalion of CH-47 Chinooks began inserting the first of 12 105-mm howitzers from the 2d Battalion, 320th Field Artillery. Within three hours, the two artillery batteries were in place and FOB Cobra was secure.³

The speed and efficiency employed in seizing FOB Cobra was unimaginable to most and the results of a man with an uncommon vision. Invisible to the troops on that cold February morning in Operation Desert Storm, the dream of Lieutenant General James M. Gavin, the famed World War II paratrooper commander, was fully realized. His vision was initially implemented during the Vietnam War to recapture classic mobility and employ light and medium artillery fires as fully integrated elements of airmobility. The innovativeness, resourcefulness and commitment of air assault artillerymen helped implement his vision.

While serving as the Army Chief of Operations in 1954, Gavin had ordered a series of staff studies to conceptualize a hypothetical cavalry organization around the potential of the helicopter.⁴ Three years later, he took his vision public with a groundbreaking article "Cavalry, and I Don't Mean Horses!" in *Armor* magazine.⁵

Gavin's airmobile concept evolved around the notion of the helicopter liberating ground forces from the restrictions of terrain, significantly accelerating the pace and lethality of combat. Gavin believed an army employing airmobility would transform the modern battlefield into a three-dimensional nightmare to overwhelm enemy commanders.⁶

In a time when great effort was dedicated to the development of the nuclear battlefield, Gavin proposed a return to the concepts of our ancestors. Nearly a century earlier, men with names such as Stuart, Custer, Sheridan and Forrest had flourished in an operational environment requiring bold, slashing shock



1st Cavalry Division troops at a landing zone during operations in Pleiku Province, 1965. To millions of troops fighting in the jungles of Vietnam, the UH-1 helicopter became known as the "Huey."

power. By the height of the McCarthy Era, we had conceded classic mobility and embraced methods of warfighting that mocked the art and principles of war. But Gavin saw the future in our past.

Two years prior to the publication of Gavin's landmark article, the Army first proposed authorizing the establishment of 12 helicopter battalions, long before practical, tested rotary wing airframes were available. Gavin was one of a handful of visionaries who saw limitless possibilities in heliborne warfare. Then in January 1960, the Army Aircraft Requirements Review Board (known as the Rodgers Board, after board president Lieutenant General Gordon B. Rodgers) convened to evaluate the technical and operational merit of 119 helicopter designs submitted by 45 different manufacturers.⁷

While the Rodgers Board had a very focused task to accomplish, the impact it had on the development and procurement of rotary wing systems was significant. During the board's tenure, the newly developed gas turbine engine was designated as the replacement for the reciprocal engines used in Army helicopters. The first airframe to boast the new turbine engine was the Bell XH-40 utility helicopter. In time, it became the UH-1, then the UH-1B and the UH-1D. Ultimately, to millions of troops fighting in the jungles of Vietnam, the helicopter would be known simply as the "Huey."⁸

When the Army Tactical Mobility Requirements Board (commonly referred to as the Howze Board) met in 1962, the Army was already giving serious consideration to the application of airmobility on the conventional battlefields of the future.⁹ Lieutenant General Hamilton H. Howze, the board president, shared much of the classic idealism of Gavin. He envisioned airmobility as "the resurrection of the bold, slashing light cavalry" of old and the advent of aerial artillery as "the modern equivalent of the horse artillery."¹⁰



11th Air Assault Division troops during an airmobile demonstration at Fort Benning, Georgia. The Sikorsky H-34 was an early workhorse for the division.

When the board concluded its work in August 1962 and recommended sweeping force structure changes to the existing divisional design, war loomed on the horizon.¹¹

With the activation of the 11th Air Assault Division (Test) at Fort Benning, Georgia, on 15 February 1963, the Army created an experimental force to explore the feasibility of the concept of airmobility.¹² Organized under the command of Brigadier General Harry W. O. Kinnard, the test division boasted an impressive contingent of aviation assets for mobility and a division artillery capable of laying down a steel curtain of fire support. The division artillery structure, a deliberate departure from the pentomic division, consisted of three battalions of M102 towed 105-mm howitzers in direct support (DS); a battalion of Little John rocket launchers in general support (GS), which was later dropped from the divisional structure; and an aerial rocket artillery battalion.¹³

For the next two and a half years, Kinnard thoroughly explored the possibilities and limitations of Gavin's vision. By its nature, the division was a test-bed of innovation. Unlike conventional combat divisions, the 11th Air Assault Division had few organic ground transportation assets; both troops and fire support could be airlifted into position by helicopter. As maneuver units moved through the battlefield, the fire support umbrella would shift with them, leapfrogging between firebases. The lightweight M102 howitzer was new to the Army

inventory as were the aircraft around which the division was designed: the UH-1 Huey and the twin-rotor CH-47 Chinook.¹⁴

As the months passed, no one could deny the viability of airmobile warfare. On 16 June 1965, Defense Secretary Robert S. McNamara formally announced the authorization of an airmobile division in the Army force structure and passed the mantle to the newly reorganized 1st Cavalry Division. When President Lyndon B. Johnson stood before the American people on 28 July 1965 to announce the deployment of the "Airmobile Division" to Vietnam, only a handful of people had the foresight to envision the revolution in the application of light Field Artillery that would result.¹⁵

Airmobility in Vietnam. Designated as an Army-level shock force by Chief of Staff General Creighton Abrams, the division deployed to Southeast Asia fully capable of being deployed theater-wide.¹⁶ By late October 1965, the division was conducting operations in the Pleiku Province, a hotbed of enemy activity and, not coincidentally, the release point for the Ho Chi Minh Trail in South Vietnam. Initially, artillery support assumed a minimal role as the 1st Battalion, 9th Cavalry maneuvered outside the range of DS tubes and the proximity to the enemy often precluded the use of aerial artillery.¹⁷

But in the second week of November, when then Lieutenant Colonel Hal Moore's 1st Battalion, 7th Cavalry engaged elements of the 66th and 33d Regiments of the People's Army of Vietnam at a clearing at the base of the Chu Pong Massif in the Ia Drang Valley, the employment of artillery was a deciding factor in the outcome of the battle. In the early morning hours of 14 November, CH-47s inserted the 105-mm howitzers of Alpha and Charlie Batteries, 1st Battalion, 21st Field Artillery onto a plateau known as Landing Zone (LZ) Falcon five kilometers to the northeast. A well devised fire support plan called for thorough deceptive and preparatory fires of Moore's clearing, designated LZ X-Ray.¹⁸

What began for Moore's battalion as a search-and-destroy mission quickly evolved into a bloodbath, a fight for survival. Initially outnumbered by a 10-to-one margin, the battalion reeled under the force of the North Vietnamese assault.¹⁹ DS fires from LZ Falcon combined with aerial rocket artillery from the modified Hueys of Charlie Battery,

2d Battalion, 20th Field Artillery laid down a "steel curtain" of lethal firepower around the perimeter of LZ X-Ray. During the next 53 hours, the artillerymen on Falcon fired more than 18,000 rounds in defense of X-Ray.²⁰

After the battle, the exhausted men on Falcon plateau stood surrounded by shell casings piled more than 10 feet high. Guns were fired with such frequency that tubes either melted or buried themselves in the soft earth of the landing zone. Through it all, the Redlegs ceaselessly provided the firepower necessary to preserve the lives of the cavalymen in combat on X-Ray.²¹

Following the first major engagement between American and North Vietnamese forces, Kinnard reflected positively on the role of artillery in the battle. In a 1967 *Army* magazine article he wrote, "Using Chinooks, we had been able to position tube artillery in the midst of trackless jungle where it provided close support to our infantrymen and gave them a vital measure of superiority."²²

In fact, the application of airmobility had been in practice since 1963, first with the American advisory effort and later during operations of the 173rd Airborne Brigade.²³ But it was during the Pleiku Campaign with experienced commanders on the ground making expert and innovative use of fire support that airmobility moved beyond its infancy. In the aftermath of Ia Drang, airmobile artillery took a dramatic leap forward, becoming the primary means of countering the unconventional threat facing American forces in Vietnam.²⁴

Application of Air Assault Artillery. Throughout the Pleiku Campaign, American artillerymen proved the viability of Gavin's vision under fire. Commanders were quick to recognize that continuous air movement of maneuver forces and fire support kept the enemy off balance and thoroughly unsettled. In combat operations during the campaign, 1st Cavalry Division Artillery units executed 79 tactical moves, 67 of those by air.²⁵

Actions in the Ia Drang also provided some invaluable lessons. Positioning an artillery battery in a remote location exposed the security force to certain enemy attack, often from any direction on the compass. To ensure the security and continuity of firepower, artillery commanders would have to use mutually supporting firebases and be capable of rapidly delivering fire in a full circle.

The lightweight howitzer also proved especially effective at providing reconnaissance by fire. The method employed by cavalry commanders during the campaign involved firing artillery in advance of maneuver forces, clearing the march route of enemy activity while ensuring that forward observers were always cognizant of their location.²⁶

Early in 1966, the 1st Cavalry Division embarked on the first major operation to cross corps boundaries and resulted in significant developments in increasing the already lethal mobility of airmobile artillery. Involving US Marine Corps forces as well as allied South Vietnamese and South Korean elements, Operation Masher/White Wing was the largest of the 19 large-scale operations conducted that year and had a devastating effect on the four enemy regiments operating in the Binh Dinh Province, including two regiments of North Vietnamese regulars.

The four-phase operation lasted 41 days and included 57 airmobile insertions of DS artillery; an estimated 2,389 enemy casualties virtually eliminated communist influence in the province. But it was the demand for aviation resources during the fast-paced operation that proved the most consequential.²⁷

In the early stages of the operation, a CH-54 Crane moved a 155-mm howitzer from A Battery, 1st Battalion, 30th Field Artillery into a firing position, the first time a medium artillery piece had been airlifted during combat. Using a special sling developed and tested by the 1st Cavalry Division Support Command, the airlift demonstrated the potential mobility of heavier artillery while offering increased firepower to field commanders engaged beyond the traditional umbrella of towed fire support.²⁸

At the same time, artillerymen searching for a means to reduce the "blade time" required to position a 105-mm battery produced a double-sling system that enabled a firing section to be sling loaded by one CH-47 Chinook. Historically, a battery required a sortie of 12 Chinooks to displace in combat with the howitzers and their ammunition loads transported separately. Using the double-sling system, one cargo helicopter could carry a complete firing section—the crew, howitzer and ammunition load—in a single lift.²⁹ Enterprising artillerymen later would develop procedures and equipment to enable a Huey to sling load the M102 howitzer into battle.

Over the course of the next two years, airmobile artillery facilitated the search-and-destroy methods employed by American commanders in Vietnam. In every operation across the theater, from Operation Cedar Falls in the Iron Triangle to Operation Junction City along the Cambodian border, the revolution in mobile firepower provided by air assaulting artillery produced unprecedented flexibility and lethality in fire support. By early 1968, the enemy had developed a deep respect for American artillery, avoiding it whenever and wherever possible.

Transition of US Policy in Vietnam. In Tet (Vietnamese New Year) 1968, the enemy stood and fought for the first time since the Ia Drang, abandoning Hanoi's strategy of waging a protracted war. On 30 January, North Vietnamese and Viet Cong forces caught allied forces unprepared, attacking six major cities, 64 district capitals and 50 hamlets.³⁰ While the attacks were repulsed and cities cleared within days, the Tet Offensive caused American commanders to rethink their own strategy.

The months following Tet also brought a new dimension to the war. In March, President Johnson conceded to pressure from civilian advisors and began to focus on South Vietnam's role in the conflict. Believing that the war would

end only through negotiation rather than a definitive military victory, Johnson launched a peace initiative and scaled back the bombing campaigns in the north.³¹ By late 1969, with a new president in office, "Vietnamization" became policy.

While general search-and-destroy counterinsurgency warfare continued after Tet, field commanders began to explore methods to extend combat power deeper into remote, enemy-controlled territory to mass fires where and when least expected. The result was the artillery raid, an air assault mission involving the rapid displacement of a combined arms force, but one in which the maneuver force supported the Field Artillery.

An operation perfectly suited to the growing dependency on airmobility in Southeast Asia, the artillery raid typically consisted of a light howitzer battery, an under-strength medium howitzer battery (three guns), a rifle infantry company for security and aerial observers from the division artillery. When available, air cavalry assets participated to provide target acquisition and damage assessment capabilities.³²

During an artillery raid, the assault forces would displace from their firebases to supplementary positions, engage the enemy targets with heavy volumes of fire and then quickly withdraw

to their original positions. The operation created an overwhelming mix of blazing mobility and lethal firepower without draining the rapidly diminishing resources available to commanders toward the end of the decade. As the withdrawal of forces depleted the combat power in theater, the artillery raid became the principal offensive operation employed in Vietnam.³³

In an effort to foster Vietnamese self-sufficiency, the artillery raid also became an invaluable tool for American commanders fighting with relatively untrained and poorly equipped South Vietnamese artillery units. The raids were conducted frequently and were well-coordinated and carefully planned with ammunition delivered with speed and accuracy and the guns rapidly displaced to their original positions. By late 1970, the application of the artillery raid had helped to significantly increase the posture and proficiency of Vietnamese artillery units with a total of 1,116 tubes providing fire support throughout the country.³⁴

On 29 August 1969, the 101st Airborne Division (known at the time as the 101st Air Cavalry Division) became the Army's second airmobile division. Carrying the mantle of airmobility through the Vietnamization period, the 101st Airborne played a key role in the



A CH-54 Crane inserts artillery as the 173rd Airborne Brigade establishes a new firebase in Phu Yen Province in Vietnam.



Airmobile artillery during Operation Desert Storm in the Gulf, 1991: "flexibility plus lethality plus agility...across the full operational continuum."

continuity of the airmobile concept long after redeploying to the United States in late 1971 and early 1972 as the last American division to leave the combat zone.

In its infancy, airmobility was a logical, yet cutting edge approach to battle on the conventional frontier of war. As a mature method of warfighting today, the decades-old concept is universally accepted as a classic manner of applying, as an anonymous briefer during the Gulf War described, "flexibility plus lethality plus agility...across the full operational continuum."³⁵ Yet in 1954, even General Gavin could not have foreseen the revolution in the battlefield application of Field Artillery that would result from his vision.

For today's Redleg, airmobile history gives us many examples of the heroic achievements of artillerymen in the heat of battle. But the most valuable lessons

learned in the evolution of airmobility have nothing to do with courage under fire or the ability to mass fires in the face of uncertainty.

Innovation, resourcefulness and a "never say die" commitment to duty characterized the artillerymen who carried the concept of airmobile artillery through adolescence. While commanders and planners alike were content to piecemeal firing sections into combat beneath Chinooks, it was the Redleg who found a way to transport the section in its entirety and then found a way to do it under the belly of a Huey. As the drawdown in Vietnam stretched the availability of fire support, Redlegs conceived the means to deliver more firepower faster with the artillery raid.

The Field Artillerymen of that era never forgot they represented the truest measure of lethality in airmobile war-

fare. In the battlefield application of airmobility, firepower would be the deciding factor and had to retain the same level of mobility as the supported ground forces. As the pace and lethality of combat accelerated, so, too, did the efforts of the Field Artillery to adapt to the dynamic environment of war.

That same spirit must live on in our current generation of artillerymen. Today, as in days past, our focus should remain on fighting the next engagement, the next battle, the next war. While our predecessors carried General Gavin's vision to another level during Operation Desert Storm, using innovativeness, resourcefulness and with commitment, we must do the same.



Major Steven M. Leonard, Ordnance Corps received Honorable Mention for this article in the US Field Artillery Association's 1999 History Writing Contest. He is a student at the Command and General Staff College, Fort Leavenworth, Kansas. In his previous assignment, he was an Assistant Professor of Military Science at the University of Montana. His also has served as Adjutant for the Combat Equipment Group-Europe in The Netherlands; Commander of the 16th Combat Equipment Company in Belgium; S4 and Materiel Officer for the 561st Corps Support Battalion, Fort Campbell, Kentucky; and Shop Officer and Platoon Leader, 584th Maintenance Company, also at Fort Campbell. He holds a master's degree from Murray State University in Kentucky and is a Distinguished Graduate of the Ordnance Officer Advanced Course, Aberdeen Proving Ground, Maryland. Major Leonard's article "Steel Curtain: The Guns on the Ia Drang" placed Third in the 1998 History Writing Contest.

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The Memoirs of an Artillery Forward Observer, 1944-1945

James Russell Major, Manhattan, Kansas: Sunflower University Press, 1999. 152 pages. \$18.95

Many people undoubtedly write books about their war experiences hoping to reveal some brilliant action they or their comrades took part in while in battle. Still others write their memoirs with hopes of publishing a best seller. James R. Major does not seem to harbor either of these pretensions in his book *The Memoirs of an Artillery Forward Observer, 1944-1945*. He tells the reader in the introduction that the purpose of the book is to record his military actions for his family so they won't be lost like the records of his Civil War ancestors. Additionally, the book is his way of thanking the men who served with him on what today would be his fire support team (FIST).

The result of Major's efforts is a very interesting, readable book that will find a special place on the bookshelves of most veterans, particularly current and former members of the Redleg community. To his credit, Major is careful not to get caught up in using too much technical jargon while describing artillery tactics so a reader does not have to be an artilleryman or even a veteran to easily follow the action.

One of the things that anyone with military experience reading this book will pick up on is that no matter what war or time period is being discussed, soldiers' thoughts, mannerisms and habits never change. Soldiers of the World War II era complained about bad food, boredom and undesirable assignments just like the soldiers of today. Major's account of his time at Fort Sill, Oklahoma, during his Basic Officer Course (World War II's version of today's Officer Basic Course) sounds strikingly like the present format. His courses included motors/materiel (maintenance/supply), gunnery, communication and tactics. The impression I got from reading this book was that although our weapons are more expensive and sophisticated, a lot of what we do remains the same.

Major then takes the reader to the heart of the book: the accounts of his exploits as a forward observer in Patton's Third Army. It is at this point that Major's disdain for British General Montgomery and admiration of Patton becomes quite clear. He engages in a bit of "Monday morning quarterbacking" in his evaluation of Montgomery's tactics after D-Day. Such scrutiny of a commander who was "echelons

above reality" relative to an army captain was not necessary, but Major moves the action along and doesn't dwell on "Monty" too much.

The remainder of the book is filled with vignettes ranging from incidents that are common to anyone who has ever served in the artillery to accounts that exemplify the ghastly nature of war. Any Redleg who spent time trying to fire off aiming poles or a distant aiming point will immediately appreciate the ingenuity that Major displayed when he selected a 13th century gothic cathedral in the town of Chartes,

France, as an aiming point for four howitzers coming into a position.

Major also provides the reader ample evidence of the awesome destructive capability of World War II artillery. In a span of less than 90 minutes, the 949th Field Artillery Battalion fired more than 400 rounds at the 106th Panzer Brigade. When Major went into the target area after the battle, he found little evidence of any direct hits or shrapnel penetrating German vehicles. However, he discovered that almost all the crews of these vehicles were killed from the shock and concussion of the barrage.

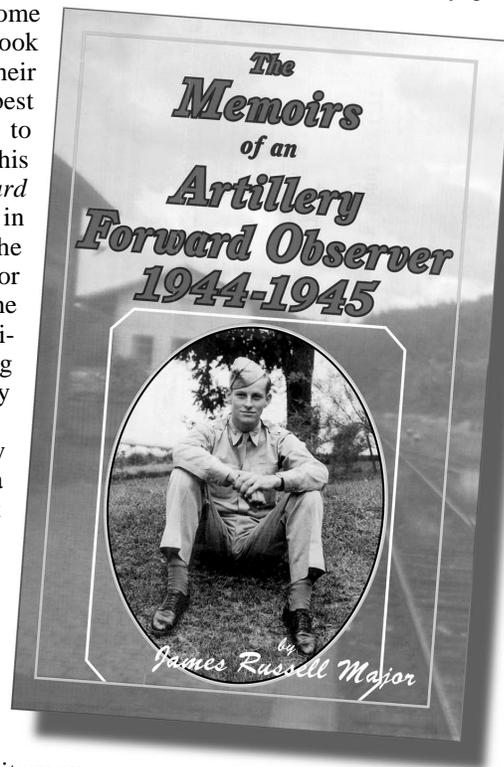
Major recalls the exploits of himself and his men on two of the largest campaigns in the European theater—the crossing of the Moselle and Saar Rivers and the Battle of the Bulge. Thankfully, the author spends little time trying to explain in any detail the big picture of the battles. Descriptions of these campaigns, especially the

Bulge, can be found in numerous other works.

One incident in which Major almost froze to death exemplifies how the danger of war isn't always connected with the enemy. In a state of exhaustion, he halfheartedly dug a foxhole in which to sleep. The foxhole collapsed on him and were it not for the efforts of his friends who heard him calling their names, he surely would have frozen to death or suffocated.

The Memoirs of an Artillery Forward Observer, 1944-1945 makes for easy reading for anyone but especially those readers with military experience. From his time at Fort Sill and Fort Bragg, North Carolina, to his time with Patton's Third Army, Major's book is sure to provide numerous examples in which a veteran can say to himself, "Yup, been there, done that!"

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The Battle of Osan, Korea, that took place on 5 July 1950 has become one of the most famous examples of an American Army failure in battle. If you mention the phrase “No More Task Force Smiths” to an Army colleague, he immediately will conjure up an image of a lost battle that resulted from a failure in Army policies, leadership, training, equipment, manning and tactical employment. Most historians recite a familiar theme: “The young men of Task Force Smith carried Regular Army serial numbers, but they were a new breed of American Regulars who, not liking the service, had insisted with public support that the Army be made

as much like civilian life and home as possible. Discipline had galled them and their congressmen had seen to it that it did not become too onerous. They had grown fat.”¹

Is this an accurate assessment of the Redlegs who supported Task Force Smith? Now retired Lieutenant Colonel Scott, the commander of the battery at Osan, says, “No.”

This article captures what happened with Task Force Smith in Korea from the perspective of the battery commander supporting the task force. It is a combination of research and an interview with retired Lieutenant Colonel Dwain L. Scott, known as “Scotty.”

A/52 FAB in Japan. Arriving at Camp Hakata in post-World War II Japan in February 1949 as a second lieutenant, Scotty began the process of becoming an artillery officer and then battery commander. As a 25-year-old first lieutenant, Scotty took command of A Battery, 52d Field Artillery Battalion (FAB) in Japan. His was the first battery to be called upon to deploy and fight in the Korean War. He can only speculate as to why his was chosen first—probably because of his World War II combat experience and the quality of the leadership he and his NCOs displayed.

A shortage of units, equipment and personnel was typical of Army units in

Breech Blocks Painted Bright Red

Task Force Smith in Korea

by Major Donald L. Barnett



Japan.² Scotty's battery equipment, conditions and training standards were poor because no one could foresee a war that would require ground troops. But the gunners of the 52d FAB were not idle at their isolated camp in Japan.

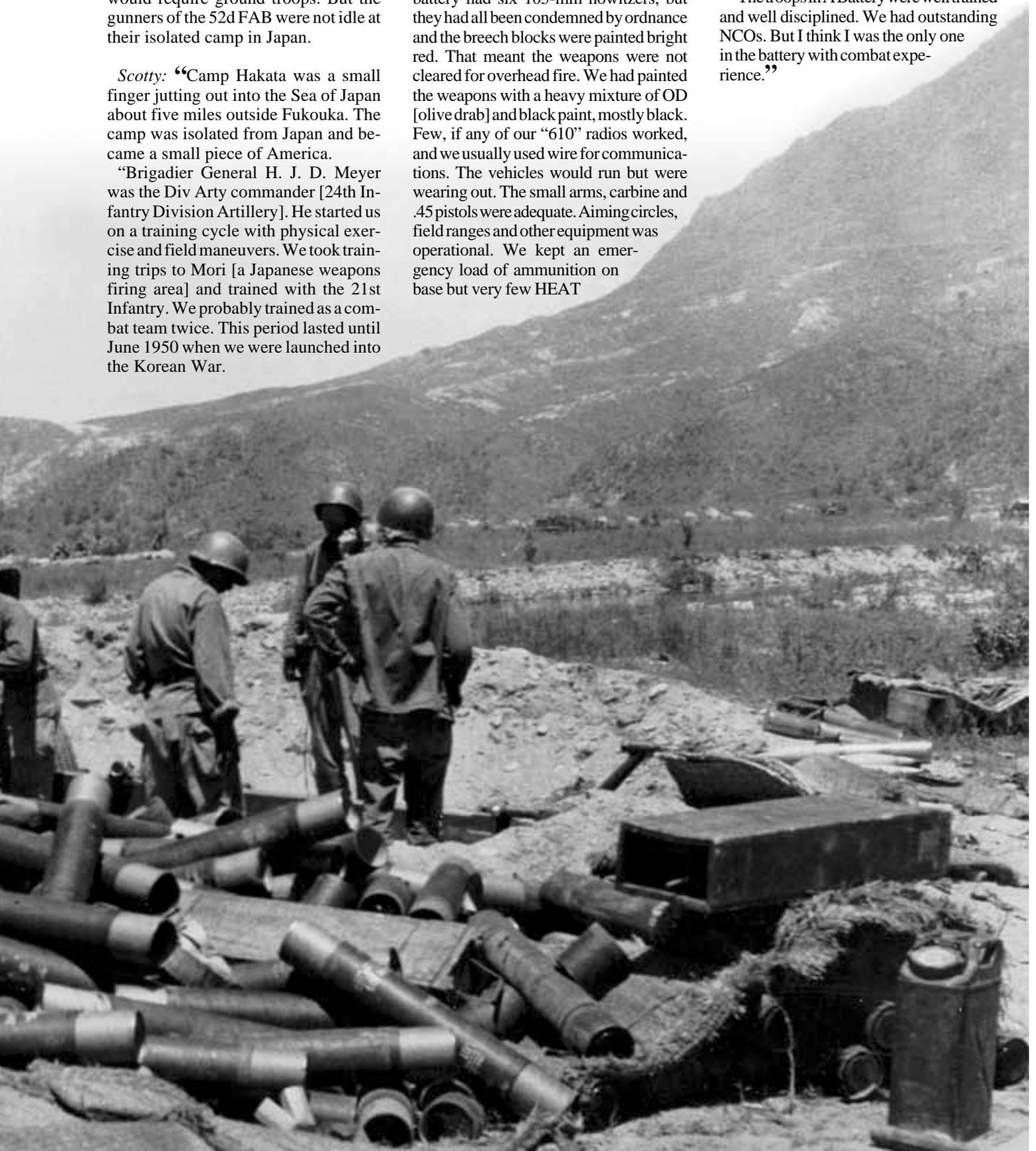
Scotty: "Camp Hakata was a small finger jutting out into the Sea of Japan about five miles outside Fukouka. The camp was isolated from Japan and became a small piece of America.

"Brigadier General H. J. D. Meyer was the Div Arty commander [24th Infantry Division Artillery]. He started us on a training cycle with physical exercise and field maneuvers. We took training trips to Mori [a Japanese weapons firing area] and trained with the 21st Infantry. We probably trained as a combat team twice. This period lasted until June 1950 when we were launched into the Korean War.

"There were only two batteries in the 52d FAB, which was commanded by Lieutenant Colonel Miller O. Perry. My battery had six 105-mm howitzers, but they had all been condemned by ordnance and the breech blocks were painted bright red. That meant the weapons were not cleared for overhead fire. We had painted the weapons with a heavy mixture of OD [olive drab] and black paint, mostly black. Few, if any of our "610" radios worked, and we usually used wire for communications. The vehicles would run but were wearing out. The small arms, carbine and .45 pistols were adequate. Aiming circles, field ranges and other equipment was operational. We kept an emergency load of ammunition on base but very few HEAT

[high-explosive anti-tank] rounds, only 10. All other ammunition was kept about four hours away.

"The troops in A Battery were well trained and well disciplined. We had outstanding NCOs. But I think I was the only one in the battery with combat experience."



Task Force Smith. On 25 June 1950, North Korea launched the cross-border invasion of South Korea. The North Korean People's Army (NKPA) rapidly advanced on Seoul, which was captured on June 28th. On June 27th, President Harry Truman authorized air and naval operations to commence against the NKPA, and by the 29th, he had authorized the employment of US ground troops. By July 1st, Lieutenant Colonel Charles B. Smith's 1st Battalion, 21st Infantry Regiment of the 24th Infantry Division had arrived in Pusan, Korea.

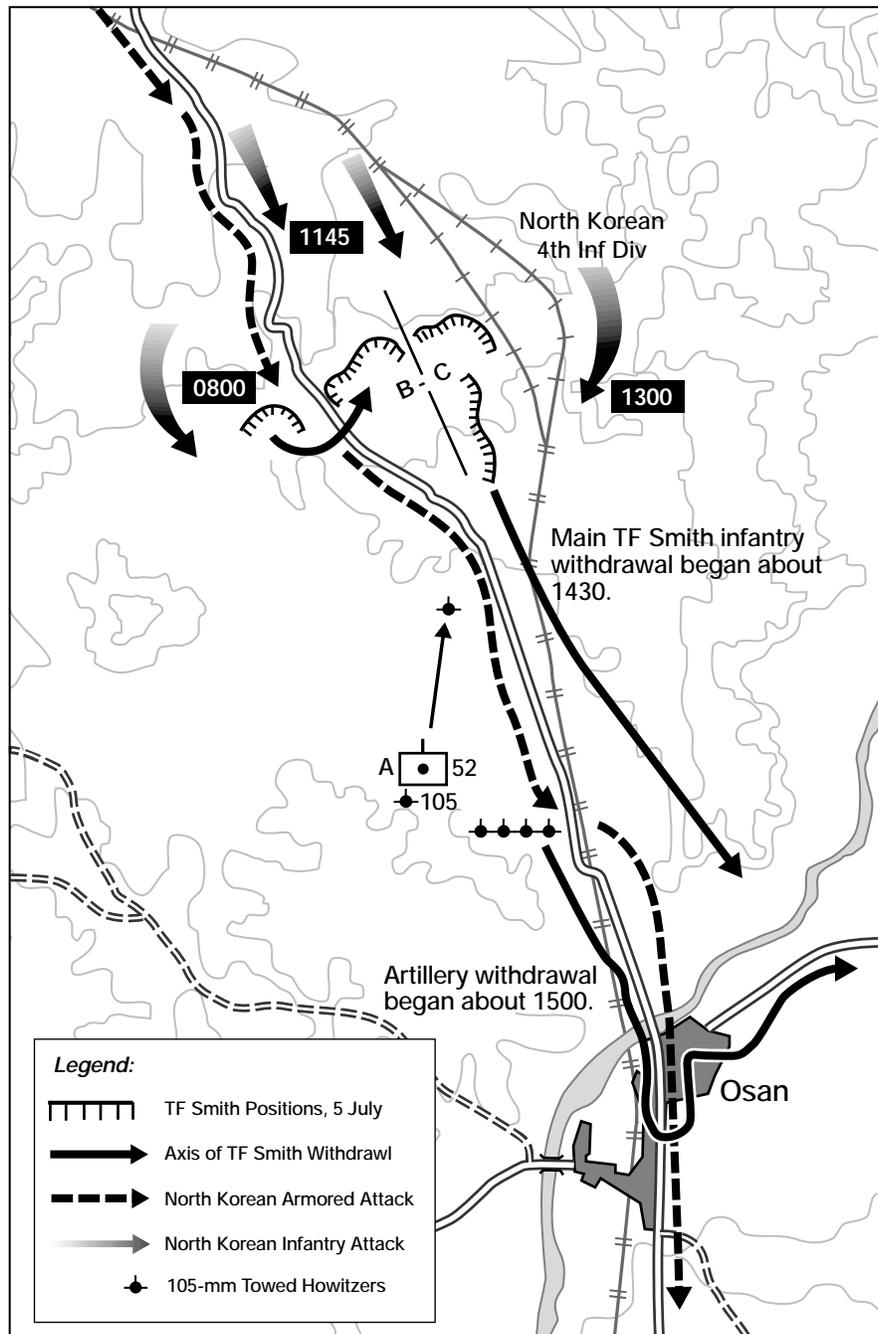
Task Force Smith consisted of 406 men, equaling two under-strength rifle companies, Bravo and Charlie. They deployed one-half each of the Headquarters Company and the Communications Platoon with a platoon of four 75-mm recoilless rifles and four 4.2-inch mortars. Each company had a weapons platoon with a .50 caliber machine gun, two .30 caliber machine guns and two 60-mm mortars. The Task Force had six 2.36-inch bazooka teams. It would not be enough for the coming battle.³

Scotty: "While in Japan, I suddenly received an order to prepare 10 jeeps and trailers along with 50 soldiers to be airlifted to Korea. We were told that the North Korean Army had attacked south and that we would pick up Korean howitzers and join Task Force Smith in Korea. We scurried around the compound, packing all the ammunition we could carry and other necessities in the trailers.

"At the last minute, our orders were changed and we were told that an LST [landing ship, tank] had been located and would arrive that evening for us to load out the complete battery. The LST could land in our motor park because Camp Hakata had been a Japanese seaplane base and the motor park road dropped directly into the bay. We sailed by ship out of Fukouka on 2 July 1950 for Pusan, Korea. During the sea trip, we test-fired weapons and performed general maintenance.

"On the evening of July 2d, the battery loaded onto a train and proceeded north to the rendezvous at Pyongtaek on the 3d. It wasn't quite as simple as it sounds. First, we had to find the railroad cars, then we had to load the battery on the cars and figure out how to tie down the equipment with grass ropes.

"During the trip north to Pyongtaek, we were strafed by enemy air. I had been strafed during World War II, but



Task Force Smith near Osan, 5 July 1950

my troops had never been in combat. We arrived at Pyongtaek after dark, and the town had been bombed and most of the village was in flames.

"On July 4th, the 52d FAB consisted of A Battery and one-half each of Headquarters and Service Batteries. We linked up with Task Force Smith at Pyongtaek. [This linkup is estimated to have added approximately 134 men; 1,200 rounds of 105-mm high explosives (HE) and six rounds of (HEAT); four .50 caliber machine guns; four bazooka teams and 73 vehicles to Task Force Smith.]⁴

"At about noon on July 4th, Colonel Perry and I went forward on reconnaissance. The trip was difficult because we had to smash our way through hordes of South Korean troops attempting to flee south. We met Colonel Smith and his commanders on a hill overlooking the future front line. During the time he delivered his operations order, we were being strafed by enemy aircraft, so we were somewhat dispersed. He delivered a *by-the-book*, five-paragraph field order; however, I don't remember him mentioning a major armor threat. The single thing I remember—other than

the structure of the order—was that he said, ‘Gentlemen, we will hold for 24 hours; after that, we will have help.’

“When the order was completed, Colonel Perry and I started back to select the battery position and were again strafed by enemy air. I jumped out of the jeep and dove into a flooded rice paddy. When the attack ended, I was wet but alive.

“We selected a battery position approximately 1,500 yards behind the infantry positions [see the map]. Having very little information of the enemy situation and certainly not expecting to meet armored forces, we chose a position on the forward slope of a hill about 50 yards off the main road. We could only find room in this position for five howitzers, so we put the sixth one about 500 yards in front of the battery as a direct fire weapon.

“Due to the limitations of the position, I was unable to take my mess and supply sections forward, so I left them at the rendezvous point with approximately 1,000 gallons of gas I had brought from Japan. I ordered them to remain in that position until I contacted them or sent additional instructions.

“Shortly after dark, we started moving out of the rendezvous area. The road was a typical Korean road, very narrow with deep rice paddies on both sides. The first thing that happened was one of the howitzers slipped off the road and turned over in the rice paddy. When I walked back along the column to appraise the difficulty, one of my men fired his carbine point-blank at me—how he missed me, I’ll never know. He hadn’t meant to fire at me, but the battery personnel were on edge, moving into their first combat. It took us about an hour to right the weapon and, again, we proceeded toward the battery position.

“During the daylight reconnaissance, I had been sure I knew the way. It was *impossible* to miss the road. But the ‘impossible’ happened. While going through a small village, I took the wrong turn. I discovered the error after we had traveled about five blocks and began looking for an area to turn the battery around. Finally, we had to knock down several stone fences and managed to turn around by uncoupling each towed load and turning it by hand. With this last catastrophe behind us, we proceeded to the battery position.”

By now, the Redlegs of A Battery had been loading and unloading, packing and unpacking, and moving their equip-

ment for more than 80 hours. Scotty had to navigate his battery into the selected position and occupy it, all at night and with most of the hard labor occurring after midnight.

Scotty: “The position we had selected was on a hill about 100 yards above the road. The only road into the position was a narrow path that would not support my prime movers, so we had to uncouple each piece on the road and couple it to two jeeps hooked in tandem and tow the weapon into its position. My men hand-carried more than 1,000 rounds of 105-mm ammunition into the position.

“The overall position was one of the most completely organized and camouflaged I have ever seen. We moved one piece into a house and replaced the house around it. One was in a cornfield and the corn was replanted before morning. We did not have air superiority in Korea at this time, and I remembered the battles in Germany when I faced similar situations.

“We established a battery ammunition dump of about 500 rounds at the foot of the hill inside a Korean shack. The only reason we didn’t move the ammunition into the position was that dawn came upon us before we finished.

“During the time we were organizing the position, the gun crews dug in each weapon where it stood. The weapons were dug in about two feet, and with the parapet, the soldiers were protected by approximately three feet of earth.”

The infantrymen of Task Force Smith also dug in that night. July 5th began as a miserable, rainy monsoon day, and the last minute preparations of the task force were interrupted by the approach of the lead North Korean Army element. Appearing out of the gray mist, a column of eight North Korean T-34 tanks rapidly closed in on the infantry defensive positions.

Smith called for the artillery battery to fire. The tanks continued to move down the road, seemingly undisturbed by the exploding 105-mm rounds. As they neared the infantry positions, the task force heavy weapons and bazookas took them under fire. Even at close range, the light anti-armor weapons could not penetrate the tanks’ armor.⁵

Scotty: “About 0800 on the morning of the 5th of July, one of my observers started adjusting on enemy armor. I

believe we had registered the battery earlier by using an air OP [observation post]. We fired about two volleys when wire communications were disrupted. A few moments later, I received my only radio message from the front line: ‘The tanks are coming through. We cannot stop them!’

“I alerted the soldiers in the forward section, and they took the first tank under fire and disabled it. The second tank attacked the forward section, and the section left the weapon and retreated over the hill to us. Then the tanks hit our position, and we opened up on them. Each tank that came through our position was hit twice with 105 HE—our HEAT rounds were with the forward gun.

“The disabled first tank fired at us with its machine guns; then we stopped the machine guns. The second tank fired and hit behind our command post. The third tank hit our ammunition dump at the foot of the hill.

“I estimate that between 40 and 50 tanks came through our position that day. Each was taken under fire by 2.36 rocket launchers in the battery position and with 105-mm direct fire at 50 to 100 yards. We only stopped five tanks. One tank had its hatch open, and our .50 caliber machine gun on the hill behind us fired into it and ignited its ammunition.

“I had seen infantry troops led by armor in Germany, so I wasn’t too surprised to see the tanks. What surprised me was the lack of North Korean infantry supporting the tanks; the infantry arrived much later in the morning. I was more surprised that our infantry line had not been able to hold them.

“My men were well trained and disciplined. Sergeant Eversole, my chief of firing battery, took a 2.36-inch rocket launcher to a ditch some 10 yards off on the edge of the road and engaged the tanks point blank. My men tracked the tanks, and I commanded them to fire when I heard the gunners cry, “Set!” My men reacted like a well-oiled machine. I’m not sure what they were thinking, but initially they reacted instantly and unhesitatingly to orders. I don’t think any of us thought about the danger. Each knew his job and just *did* it.”

With the loss of the forward gun position and out of HEAT rounds, the North Korean armor easily drove by A Battery and continued its push toward Osan. For the battery, the battle had become a series of direct fire engagements. These



L to R Front: Lieutenants Scott (A/52 Battery Commander), Yoon (Korean Liaison Officer), Thompson (A/52 Executive Officer), Haney (just attached to the battery) and Harg (behind Scott, also just attached). Thompson, Haney and Harg went forward with the infantry for the battle. Thompson was killed and Haney was presumed to have been killed. Harg was from Service Battery; Scotty doesn't know his fate.

engagements continued from about 0800 until 1100.

While firing on the tanks, Scotty and his first sergeant noticed that the effects of the long and laborious deployment, the overnight preparations and constant fighting were beginning to show.

Scotty: "Fighting had gone on for sometime, and my troops were tiring and didn't seem to be reacting as they had earlier. So the first sergeant and I went down and manned one of the guns, taking a tank under fire. There were two reasons we did that: one, the troops were not reacting as they should have, and the second, I was caught up in the excitement of the moment and wanted to actively participate. But it was more to rally the battery than anything else."

The fact that the 105 battery was able to destroy any enemy armor was a testament to the training level and discipline of the gunners. Five enemy tanks were destroyed or disabled by a combination of HE rounds and .50 caliber machine gun fire.

Scotty: "I believe the lack of HEAT rounds saved my battery from destruction. The tanks came down a road that curved ahead of us and then vanished into another curve behind us. Driving down the road, the tanks had to round a

curve that was their first exposure to the heavily camouflaged battery. In the rain and smoke from the early engagements and exploding ammunition dump, the enemy chose to button up and push through rather than stop and fight. If A Battery had been more successful at destroying tanks—had been able to use the six HEAT rounds—the enemy tanks would have been forced to assault and destroy our position instead of rapidly driving by it.

"The camouflage worked well. Locating the battery on the forward slope of the hill worked well. The forward gun worked well, but only for a short time. I had positioned a .50 caliber machine gun on the hill behind us, and this worked well.

"The small ammunition dump at the foot of the hill worked well. It was hit by an enemy round early, and during the rest of the day, rounds were exploding at the base of our location. The explosions helped confuse the enemy tankers as they approached the battery during the morning engagements.

"There was no way out of the position, and this was a handicap. Communications were limited or not available, and this was a handicap."

Up front with the infantry, the situation had deteriorated to point of imminent disaster. Late in the morning, the

North Korean infantry regiment arrived. Although initially surprised by the Americans, the enemy rallied and began a series of flanking maneuvers and assaults that unhinged Smith's defense. Smith tried to withdraw his task force around mid-afternoon, but the North Korean infantry had successfully overwhelmed the American positions and took the exposed withdrawing infantry under machine gun fire. It became a rout.⁶

Scotty: "In the afternoon, the sky clouded over and a light mist settled over our position. About 1300, we attempted to reestablish communications with the infantry, and a patrol was formed to contact them. As the patrol prepared to leave the battery area, we observed our infantrymen fleeing south to our right front. They had expended all their ammunition and were withdrawing—some without shoes, some without weapons, but all with the same thought: 'Get out.'

"I talked to Colonel Perry, who had been wounded when the command post was hit, and we decided to withdraw. We went down to get some vehicles for transportation. We were fortunate we had camouflaged them so well that few of them had been touched. It was impossible to get the howitzers out of the position, so we took the breech blocks and infiltrated to the base of the hill where we regrouped.

"We mounted the vehicles, one jeep and two (I think) two and one-half ton trucks, and drove south. Colonel Perry and I were riding in the jeep. We wanted to turn to the right but a burning vehicle blocked the road. Around the next curve, we ran right into an enemy tank that had turned around and was apparently returning to attack us from the rear. Some of the enemy soldiers had dismounted and were eating. They appeared as surprised as we were.

"We turned the jeep and convoying vehicles around and headed back north and then took a road to the east. (We had a Korean liaison officer in the jeep with us, and he knew the country.)

"We stopped to pick up as many of our infantrymen as we could find and then continued down the road. A heavy overcast and light mist settled like a blanket over the battlefield as we departed.

"We reached a reserve unit—it might have been the rear element of the 21st, or it could have been the 13th FAB. The mess sergeant and supply sergeant with their sections had received enemy fire and the gasoline reserve had been hit.

These men withdrew through the hills and rejoined us at the rear. We rested there for two days and were re-equipped with South Korean equipment and returned to the line.”

Scotty received the Silver Star Medal for his courage and calm leadership. There were approximately 31 men from the artillery battalion killed, wounded or missing from the battle, most of whom were up front with the infantry.⁷

Withdrawal to Pusan. Major General William F. Dean, commander of the 24th Infantry Division, tried to establish a new blocking position along the Kum River. This was to be a strong defensive stand because the Eighth Army was trying to buy time for the deployments of the 1st Cavalry and 25th Infantry Divisions. Once again, A Battery was in action with a relentlessly attacking enemy.⁸

Scotty: “We moved back on line and fought a delaying action until we reached the Kum River. This was to have been a major defensive position. We went into position just south of the river for about one day. I had to go to Service Battery in the rear of the position to coordinate a supply problem, and when I attempted to return to the battery, I was informed the enemy had outflanked the unit and established a roadblock between me and the battery. Cut off from the battery, I planned a route through the mountains back up north to bypass the enemy roadblock and rejoin the battery.

“The plan worked well. I went on foot through the mountains around the enemy and arrived at my battery late in the afternoon. I found the battery march-ordered, coupled and packed to move, and lined up on the road. At first, there was hope of breaking the roadblock and getting the equipment out, but as evening approached, it became apparent the roadblock could not be cleared. At dusk, we received orders to leave our weapons and equipment and proceed out on foot. Again, we had to abandon our guns.

“The route we took out was very similar to the one I had walked earlier in the day. We left our wounded infantrymen on stretchers on the top of a small hill as we departed. (None of my men were wounded.) It was not possible to carry the wounded out through the mountains; therefore, we left them to the mercy of a merciless enemy. We left a chaplain with them and took off through the mountains. I later heard that all the

wounded had been shot where they lay. The chaplain was killed along with the wounded.”

It was during these trying times of successive withdrawals, defeats and losses of good leaders and men that the 24th Division suffered morale problems.⁹ Scotty’s battery did not have this morale breakdown, but it was hard for the gunners to walk by the wounded infantrymen beside the road—this time, the artillerymen did not have the transportation assets to help.

The Americans and South Koreans were rapidly forming the Pusan Perimeter. Driven south to the end of the Korean Peninsula, the US Army established a defensive line that would have to hold. But the dark days of the withdrawal were slowly giving way to a new hope.

Scotty: “We were soon reequipped with material from the ROK [Republic of Korea] Army. The division occupied positions along the Nakdong River, and my battery was sent on a separate action to support a ROK division on the east coast. The battery position was on an ocean beach just short of a river with the city of Yekdek on the other side. Yekdek had been heavily shelled and bombed. The banks of the river were littered with dead, decaying bodies.

“The Navy was standing offshore and supported my battery with naval gunfire. We were in this position approximately two weeks. During this time, our personnel came down with severe amoebic

dysentery. My troops melted before my eyes. Then we came down with body lice.

“The North Koreans put in the Nakdong Bulge behind us, and again, we were cut off. We had little intelligence during this period and conducted fire as requested by our air OPs or the South Korean force. In about two weeks, the bulge was reduced and we withdrew from the position with all equipment and closed into the Pusan Perimeter. We defended here until the Inchon Landing.”

North to the Yalu and South Again.

As the US Army tightened its defense, the Americans executed an ambitious amphibious landing at Inchon that outmaneuvered and cut off the overextended North Koreans. After the success at Inchon, A Battery moved with the infantry on the offensive.

Scotty: “When the forces landed at Inchon, we broke out and started fighting north to effect a linkup. The fighting was similar to the fighting in Germany after we crossed the Rhine River. We pushed north rapidly, past the capital, past the 38th Parallel and into North Korea. We continued leap frogging north by combat teams. Again we were supporting the 21st Infantry.

“One night approximately 10 miles from the Yalu River, I was looking forward to firing on the bridges and seeing an end to the Korean War. That night Colonel Perry and I met again with Colonel Smith in a low-ceiling



A/52 FAB destroyed or disabled five tanks with a combination of HE rounds and .50 caliber machine guns. The fact that the 105 battery was able to destroy any enemy armor was a testament to the training level and discipline of the gunners.

dugout. Colonel Smith did not deliver a five-paragraph field order; instead, he said, ‘Gentlemen, the Chinese have entered the war, and we must head south as rapidly as possible or we will face another Osan.’

“I march-ordered the battery and headed south as fast as the road could be cleared ahead of us. Shortly after the march order, my year in the Korean War was up and I rotated back to the United States. Leaving A Battery was hard, but I had had enough and was ready to go back to the states.”

Epilogue. After the Communist Chinese intervention into the war, the battery was headed south again. But having learned the hard lessons of fighting in Korea, the Redlegs of A Battery, 52d FAB enjoyed considerable more success at fighting and surviving.

Scotty: “That group of soldiers was about the finest you could imagine. They were well trained in Japan, went to Korea with obsolete or poor equipment and fought the entire North Korean Army almost bare handedly. They were so highly disciplined that they instantly reacted to my orders without hesitation.

“The NCOs were the finest. They had little formal schooling but unlimited

survival skills. We could push the battery into a rice paddy, and within a couple hours, they could construct a road with bridges out of position.

“One of the finest compliments we ever received was from General Meyer on one of his visits to our position. He said, ‘Scotty, you may wonder why I visit your battery so often. It is just that I like to bask in the cheerfulness and quiet efficiency of this group.’”

If you ever get to meet Scotty, you’ll know from whom the battery got this cheerfulness.

Lessons for Today. Reflecting on Scotty’s experiences in peacetime and war makes these modern times of downsizing, shortages and technological experimentation seem less stressful. There are some basic soldiering truths that endure through time. Technology only can do so much for an army. What will make or break an army in war is the discipline and training of its leaders and soldiers.

Scotty: “I think the most important thing I learned through my combat is that the military can assign you to a command position—at any level—but only *you* can make a commander out of yourself. You must learn to subordinate your personality and hide yourself some-

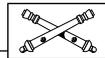
where deep within your soul. All that must exist for the world to witness is a commander who weighs his options and selects the option that has the greatest chance of success to accomplish the current mission.

“Your subordinates must be so disciplined that they instantly carry out your orders without question. You must develop a relationship with subordinates that allows you to either freeze them in place or rocket them to the moon by a tone.

“They must respect your judgment and know that you have their interest at heart—but that the mission is more important—and that you will take care of both the best way possible.

“When you have developed yourself to this level, you will be capable of carrying forward the command legacy passed to you.”

Next time you hear a modern-day soldier assert, “No More Task Force Smiths,” say, “Amen.” But at the same time, remember that soldiers who displayed discipline and bravery in lost battles are no less heroic than those who displayed them in victory.



Lieutenant Colonel (Retired) Dwain L. Scott was drafted into the Army in May of 1942 at 17 years old. From 1944 to 1945, he fought in World War II in the Campaigns of the Ardennes, Central Europe and Rhineland, including landing at Omaha Beach during Normandy and fighting at Aachen, on the Seigfried Line and in the Battle of the Bulge. Among other decorations, he received the Bronze Star Medal for Valor for calling in artillery fire on his own position, halting a German attack. Through Officer Candidate School, Fort Riley, Kansas, he was commissioned a

second lieutenant in the Field Artillery just before being posted to Japan in early 1949. In other assignments, he served as Staff Officer in the Research Section of the Gunnery Department of the Field Artillery School at Fort Sill; returned to Korea as Commander of a 105-mm Field Artillery Battalion, part of the 7th Infantry Division of the occupation forces; and served as the Chief of the Tactical Fire Direction System (TACFIRE) Division at Fort Huachuca, Arizona, to study the concept development, implementation and documentation of TACFIRE. He is a graduate of the Command and General Staff College at Fort Leavenworth, Kansas. Lieutenant Colonel Scott retired from the Army in 1968 after nearly 25 years of service. He lives in Leavenworth, Kansas.

Major Donald L. Barnett is an Assistant Training and Doctrine Command Systems Manager for Cannons (TSM-Cannon) as a Crusader Combat Development Staff Officer at the Field Artillery School, Fort Sill, Oklahoma. Until recently, he was a Doctrine Author on the Division Team in the Combined Arms and Doctrine Directorate of the Command and General Staff College, Fort Leavenworth, Kansas. He also served as a Brigade S3 and Brigade Fire Support Officer (FSO) Observer/Controller (O/C) for the National Training Center’s (NTC’s) Live-Fire Operations at Fort Irwin, California. His other O/C experience includes Combat Service Support Trainer for the Fire Support Division at the NTC. In addition, he was the Battalion FSO for both the 1st Battalion, 69th Armor and 4th Battalion, 66th Armor in the 3d Infantry Division (Mechanized), Germany. Major Barnett commanded Service Battery, 5th Battalion, 18th Field Artillery, part of the 75th Field Artillery Brigade in III Corps Artillery at Fort Sill.

Endnotes:

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2. Dr. William G. Robertson, “Leavenworth Papers No. 13, Counterattack on the Naktong, 1950” (Fort Leavenworth, Kansas: Combat Studies Institute, US Army Command and General Staff College), 3-8.
3. Eric C. Ludvigsen, “An Arrogant Display of Strength (Task Force Smith)” (*Army*, February 1992, Vol 42, No 2), 36-40.

4. R.E. Appleman, “South to the Naktong, North to the Yalu, (June-November 1950),” *US Army in the Korean War* (Washington, DC: Office of the Chief of Military History, US Army, 1972), 61.
5. Clay Blair, *The Forgotten War* (New York: Times Books/Random House, 1987), 101-103.
6. Ludvigsen, 36-40.
7. Appleman, 76.
8. Blair, 112-113.
9. *Ibid.*, 103, 107-115.

1999 History Writing Contest Winners

First Place— “Confederate Redlegs at Shiloh: Swatting the Hornet’s Nest” by Major Thomas K. Hall

Second Place— “The Operational Use of Artillery: War of Granada 1482-1492” by Major Prisco R. Hernandez, ARNG

Third Place— “Marine and Army Artillery: Forging a Lasting Relationship” by Captain Michael T. Carson, USMC

Honorable Mention— “One Man’s Vision: The Evolution of Airmobile Artillery” by Major Steven M. Leonard, OD

Judges of the 1999 History Writing Contest

Colonel Thomas G. Waller holds three Masters of Art, including in Military Art and Science from the School for Advanced Military Studies, Fort Leavenworth, Kansas, and Asian Studies from the University of Michigan. He has been published several times in *Field Artillery*, including as the winner of the 1989 History Writing Contest. He taught Military History at the US Military Academy at West Point. Currently, he is the Director of the Gunnery Department at the FA School, Fort Sill, Oklahoma. Among other assignments, he commanded two FA battalions and coordinated fire support for VII Corps during Operations Desert Storm and Shield in South-west Asia.

Colonel (Retired) Neil E. Nelson holds a Master of Art in History from Lincoln University, Jefferson City, Missouri. Colonel Nelson served in a variety of command and staff positions, including as Commander of the 101st Airborne Division (Air Assault) Artillery at Fort Campbell, Kentucky, and Commander of 2d Battalion, 321st Field Artillery of the 82d Airborne Division, Fort Bragg, North Carolina. In the Republic of Vietnam, he commanded F Battery, 26th Field Artillery. He is Director of Training Product Development for AST, a technology corporation in Lawton, Oklahoma.

Lieutenant Colonel (Retired) John A. Hixson holds a Master of Art in History from Rice University and taught Military History at the US Military Academy at West Point. He has co-authored two history books. In addition, during his military career, he was Chief of Oral History at the Military History Institute and Adjunct Faculty at the Army War College at Carlisle Barracks, Pennsylvania. Currently, he is a Consultant with RAND Corporation and a Training Analyst with Logicon Corporation at the Battle Command Training Program (BCTP), Fort Leavenworth, Kansas.

Field Artillery Themes for 2000

| Edition | Theme | Copy Deadline |
|---------|-----------------------------|--|
| Sep-Oct | RC Redlegs | 1 Jun 1999 |
| Nov-Dec | Red Book | 13 Aug |
| Jan-Feb | World Fires | 1 Oct |
| Mar-Apr | Training | 1 Dec |
| May-Jun | A Day in the Life of... | 1 Feb 2000 |
| Jul-Aug | History | 1 Feb: History Contest 1 Apr: Other |
| Sep-Oct | Developing Adaptive Leaders | 1 Jun |
| Nov-Dec | Red Book | 1 Aug |

2000 History Writing Contest Rules

The US Field Artillery Association is sponsoring its 15th annual History Writing Contest with the winners’ articles to be published in *Field Artillery* and the Association subscribers’ version of the magazine, *FA Journal*. To compete, submit an original, unpublished manuscript on any historical perspective of Field Artillery or fire support by 1 February 2000. The Association will award \$300 for the First Place article, \$150 for Second and \$50 for Third. Selected Honorable Mention articles also may appear in *Field Artillery*. Civilians or military of all branches and services, including allies, are eligible to compete. You don’t have to be a member of the Association.

Your submission should include (1) a double-spaced, typed manuscript of no more than 5,000 words with footnotes, (2) bibliography, (3) your comprehensive biography and (4) graphics (black and white or color photographs, maps, charts, etc.) to support your article. The article should include an analysis of lessons or concepts that apply to today’s Redlegs—it should not *just* record history or document the details of an operation. Authors may draw from any historical period they choose.

A panel of three historians will judge the manuscripts without the authors’ names. The panel will determine the winners based on the following criteria:

- Writing Clarity (40%)
- Usefulness to Today’s Redlegs (30%)
- Historical Accuracy (20%)
- Originality (10%)

By 1 February 2000, send the manuscript to the US Field Artillery Association, ATTN: History Contest, P.O. Box 33027, Fort Sill, Oklahoma 73503-0027. For more information, call DSN 639-5121/6806 or commercial (580) 442-5121/6806 or email: ritterl@doimex1.sill.army.mil.

The Enubuj Experiment

US Army Tube Artillery at Kwajalein Atoll

by Major Scott T. Glass, QM



Seizure of the Gilberts and Marshalls, Page 224

The US Army executed a significant number of amphibious landings in the Pacific Theater during World War II. In several operations, Army tube artillery provided supporting fires *prior* to the main landings from firing positions on islands adjacent to the objective. Operation Flintlock, the attack against Japanese forces on the Kwajalein Atoll in January-February 1944, is the first large-scale example.

As we head into the 21st century, tactical reasons to employ shore-based tube artillery in support of a forced landing are just as compelling as they were in 1944. First, given the expected level of coordination, tube artillery can provide accurate, responsive fires in support of advancing ground troops. This is especially true considering the factors limiting “danger close” naval gunfire support or tactical air missions.

Second, if emplaced prior to the main landings, the tube artillery can enhance the invasion prep fires against specific targets with a wide array of munitions, including smoke and illumination.

Another consideration is time. The artillery is emplaced on a nearby island or shoreline without having to wait for the assault lodgment in the main battle

area to expand, land the artillery on the objective shore and emplace its systems before beginning to fire.

Fourth, the high-angle fire of the tube artillery complements the flat trajectory of naval gunfire and can service targets difficult for naval gunfire or aircraft to engage.

And lastly, the gun systems and cannoneers are secure from enemy land counterattacks. More time can be dedicated to emplacement and less time, at least initially, to local defense.

These advantages offset the obvious drawback of potentially signaling intent to force land on an island, such as Kwajalein, after the artillery lands on a nearby island, such as Enubuj in Operation Flintlock, exposing the gunners to enemy counterbattery fires. In that operation, planners made the assessment that the firepower contributions of the guns on Enubuj would outweigh any loss of the element of surprise. The planners also counted on the Field Artillery crews’ ability to respond to Japanese counterbattery fires with quick, accurate fires of their own.

It’s possible Army artillery units will be called on to execute missions similar to Operation Flintlock in the future. A

review of Field Artillery operations supporting the Kwajalein assault illuminates several useful lessons for an FA unit supporting a forced landing in the littorals.

The Plan. Kwajalein Atoll contained two major Japanese base islands—Roi-Namur in the north and Kwajalein in the south with smaller islands often supporting complementary base operations. For the atoll assault, the Marine Corps took responsibility for Roi-Namur. The Army assumed the mission for the islands around Kwajalein, assigning the task to the Southern Landing Force and the 7th Infantry Division. (See Figure 1).

Operation Flintlock fire support planners quickly developed the concept of emplacing supporting tube artillery on one or more of the smaller islands to support the main effort on Kwajalein Island. The small island covering the southwestern landing beaches on Kwajalein Island was named Enubuj, code-named “Carlson” in planning. The added advantage of securing Enubuj for an artillery platform was the fact that the 105-mm batteries firing from it could support operations on Ebeye Island, and the 155-mm batteries could

range most of Gugegwe Island north of Kwajalein where the Japanese maintained significant base activities.¹ The range from Enubuj to the center of Gugegwe was 13,500 meters, approximately 1,000 meters under the 155-mm howitzer's maximum range.²

The plan had four phases. Phase I: The landing and occupation of Enubuj was scheduled for D-Day, 13 January 1944. The phase ended when division artillery units confirmed their readiness to support the main Kwajalein landings.

Phase II: The delivery of supporting fires for the Kwajalein landing was tentatively scheduled for D+1. The end for this phase would be determined by the progress of fighting on Kwajalein.

Phase III: The delivery of supporting fires for the assault on Ebeye and another islet north of Kwajalein. The end of this phase would be determined by the progress of the assault at those two locations.

Phase IV: The delivery of fires for attacks on the next four islands in the atoll's eastern chain north of Ebeye. For this phase, some of the artillery emplaced on Enubuj would be relocated by water to another island closer to the objective areas. The end of Phase IV would complete the capture of the southern portion of the Kwajalein Atoll.

The Southern Landing Force commander assigned the 2d Battalion, 17th Infantry (2-17 IN) the mission of assaulting Enubuj and securing it for the arrival of the artillery battalions, the most important combat action to be accomplished on D-Day. Planners estimated the main landing on Kwajalein would be compromised if the artillery could not land and emplace prior to the morning of D+1.³

After the occupation of Enubuj, firing batteries would focus on maintaining harassing and interdiction fires on Kwajalein throughout the night of D-Day and early into the next morning of D+1. Specific units were alerted to furnish counterbattery fires onto the Japanese-held island immediately north of Kwajalein, if necessary, with all battalions participating in the bombardment immediately prior to the landing on Kwajalein. The Enubuj artillery would fire the nearest to the advancing troops, followed by naval gunfire and then dive bombers at the farthest distance.⁴

FA Order of Battle. The FA battalions in the Southern Landing Force were 105-mm and came primarily from the 7th Infantry Division Artillery.

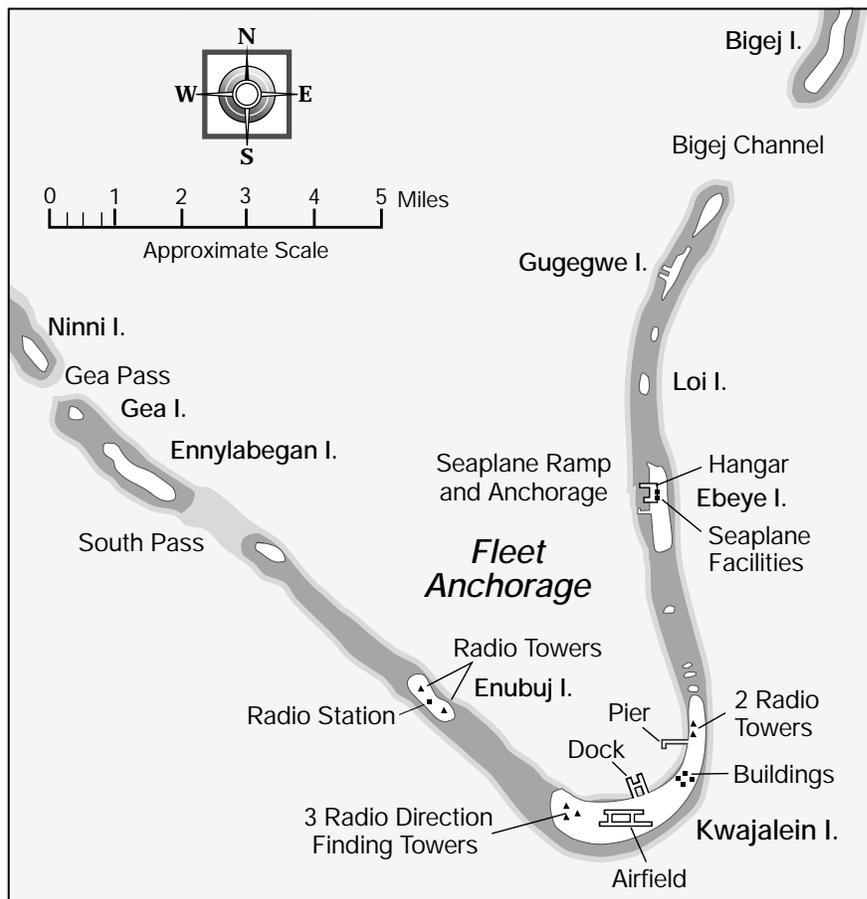


Figure 1: Southern Kwajalein Atoll, Pacific Theater. During World War II, US Army artillery units landed their 105-mm and 155-mm howitzers on Enubuj Island and fired in support of an assault on Kwajalein and other islands in the atoll.

These battalions used the M-2 series howitzer with a range of 11,500 meters. The 7th Infantry Division Artillery did not control any battalions with guns heavier than 105-mm, so planners attached the 145th Field Artillery Battalion (FAB) of 155-mm M-1 howitzers with a range of 14,600 meters.⁵ Altogether, Enubuj would host 48 105-mm and 12 155-mm howitzers.

The plan for the phases of the assault put two battalions in direct support (DS) to the 32d and 184th Infantry Regiments on Kwajalein and kept the other three in general support (GS) or general support reinforcing (GSR) relationships. Phases III and IV would shift a battalion to DS to assault forces attacking the smaller islands north of Kwajalein.⁶ (See Figure 2.)

| Supporting Unit | Phases of the Assault | | |
|-----------------|-----------------------|---------------------|---------------------|
| | Phase II | Phase III | Phase IV |
| 31st FAB | GSR to 57th FAB | GSR to 48th FAB | DS to 1-17 IN |
| 48th FAB | GS | DS to 17th IN Regt | DS to 3-17 IN |
| 49th FAB | DS to 32d IN Regt | DS to 32d IN Regt | DS to 32d IN Regt |
| 57th FAB | DS to 184th IN Regt | DS to 184th IN Regt | DS to 184th IN Regt |
| 145th FAB | GS | GS | GS |

Legend:
 DS = Direct Support GS = General Support IN = Infantry
 FAB = Field Artillery Battalion GSR = General Support Reinforcing Regt = Regiment

Figure 2: Artillery Support Plan for Fires Phases of Operation Flintlock

Terrain of E nubuj Island. E nubuj posed operational challenges for the FA units. The island measured only 1,400 meters on its long axis (northwest to southeast) and averaged less than 300 meters wide.⁷ It shared several characteristics with the islands of the atoll—a 25- to 50-meter wide beach, thick vegetation, densely wooded interior, offshore reef to seaward and a shallow reef on the lagoon shore (north).⁸

The Japanese employed E nubuj as a home for the communications activity of the southern Kwajalein Atoll. The communications physical plant consisted of several buildings, radio antennas, direction-finding masts and a sparse road network. A very small wharf served the island from the lagoon. Although the 7th Infantry Division intelligence section estimated 250 to 300 Japanese would be garrisoned at E nubuj when 2-17 IN landed, the actual defenders amounted to an infantry platoon, some signal personnel and a few Korean laborers.⁹

Fires for Operation Flintlock. At 0915 on 31 January, landing craft carrying 2-17 IN hit the beach on E nubuj after a brief preparatory bombardment by naval gunfire and carrier aircraft. Four light tanks supporting the infantry found the thick vegetation barely disturbed by the bombardment, and the tangled underbrush temporarily disabled one of the tanks.¹⁰ The Japanese platoon offered only token resistance, and after about three hours, the 2-17 IN commander declared E nubuj secure.

At approximately 1250 that afternoon, amphibious trucks (DUKWs, pronounced “ducks”) with 105-mm howitzers, crews and ammunition aboard headed for E nubuj. Gun crews used A-

frames rigged to several of the DUKWs as leverage to offload the guns and then hooked the guns to the DUKWs, which served as prime movers. Two bulldozers pushed beach exit trails and routes through the trees, vegetation and debris to the firing sites. However, many trees had to be cut down using handsaws and axes to allow the guns to pass. The initial howitzers of the 31st, 48th, 49th and 57th FABs occupied firing positions from the center to the southeastern tip of E nubuj.¹¹

At 1355, the first smoke registration rounds arched toward Kwajalein, and by 1500, all four of the 105-mm battalions had established themselves ashore. The 155-mm howitzers of the 145th FAB remained afloat until the ships carrying them could be cleared to land. The 155-mm howitzer’s heavy weight and bulk prevented the DUKWs from ferrying them to E nubuj, which caused considerable delay. But by dark, the gun crews had the 155s ashore and ready to fire from positions to the rear of the 105-mm battalions.¹²

Artillerymen labored through the night to dig protective pits and berms for the guns, stockpile ammunition near firing positions and construct local defenses. The majority of work was accomplished by hand with pioneer tools. The DUKWs ferried ammunition from beached landing craft to the gun positions along trails scraped out by the hardworking bulldozers. While this work progressed, selected batteries fired harassing concentrations on Kwajalein and Ebeye defenders until daybreak.

On D+1, the artillery emplaced on E nubuj fired concentrations as close as 35 meters to the landing craft before

shifting to a zone 200 meters inland. This accurate fire preceding the landing waves demolished most of the Japanese waterline defenses. After the landing, the firing battalions continued to shift fires periodically inland from the landing beaches to cover the advancing troops and disrupt Japanese counterattacks. While assisting in the preparatory fires before the assault landings and continuing support missions on Kwajalein, the five artillery battalions fired nearly 29,000 rounds onto the island, an average of 585 rounds per 105-mm piece and 72 per 155-mm gun.¹³

The FA crews on E nubuj repeatedly proved their worth by quickly responding with accurate fires on D+3. The 3-184 IN reported a Japanese troop concentration to its front. Sixty rounds fired by the 57th FAB rained down on the Japanese and broke the back of organized resistance in the 3-184 IN’s sector.

The 7th Division Artillery earlier had participated in another innovation in concert with the destroyer *USS Sigsbee* on the night of D+1. The destroyer used its searchlights to illuminate a portion of Kwajalein in front of friendly lines. The artillery on E nubuj fired concentrations in the illuminated area and beyond, successfully preventing Japanese night counterattacks.¹⁴ The artillery continued its success consistently with danger-close fires throughout the hours of darkness for D+2, D+3 and D+4.

Combat operations progressed well enough on Kwajalein to allow the assault on Ebeye to begin on 3 February (D+3). Artillerymen in the 31st, 48th and 145th FABs on E nubuj re-laid their guns on Ebeye to provide more than 5,000 rounds of preparatory fires.¹⁵ During the prep, a landing craft with artillery observers aboard received machine-gun fire from a tiny islet between Kwajalein and Ebeye. A rapid shift of fires by the 31st FAB obliterated this threat.¹⁶

Although dug in using field fortifications, very few Japanese combat troops survived the bombardment of Ebeye. In fact, the chief obstacle of landing troops in the first 300 yards ashore was debris and trees knocked down by the artillery.

Lessons Learned. The operations of the five FA battalions firing from E nubuj onto Kwajalein and other islands contain several valuable lessons for both Army and Marine Corps artillery units attempting similar missions in the future. The Marine Corps after-action re-



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“Shot, Over!”—a gun crew on E nubuj fires a 105-mm howitzer at a target on Kwajalein.

view (AAR) from the Roi-Namur sector is mirrored in several of the Army lessons learned.

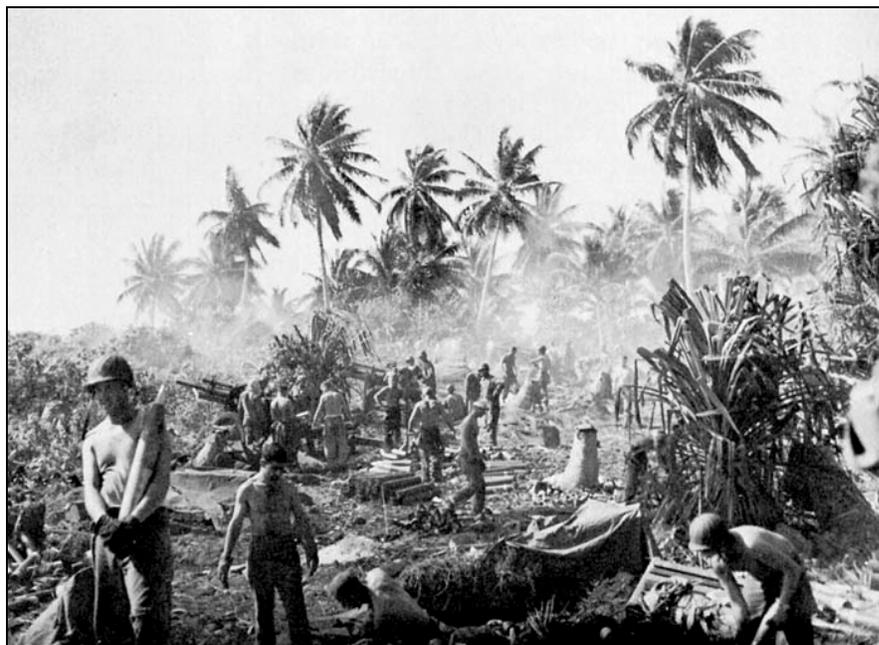
Ship to Shore Operations. Kwajalein featured the large-scale combat debut of the DUKW amphibious vehicle with more than 60 of them being allocated to the division artillery. The DUKW performed extremely well in moving the 105-mm guns, crews and limited ammunition ashore, but this required removing the wide tactical tires of the artillery pieces and substituting narrower truck tires so the guns would fit into the DUKW.¹⁷

The 155-mm pieces could not fit into the DUKW's cargo body, requiring larger ships for landing. The shallow water over the reef grounded larger landing craft offshore in three feet of water, requiring the 145th FAB personnel to improvise methods of dragging the 155s ashore and over the beach. This delayed the emplacement of the last of the 155s until after dark on D-Day, limiting the contribution of these heavy, accurate guns for several hours.¹⁸

Well briefed and trained beach guides to direct gun crews to firing positions are absolutely essential for all artillery landings where guns will be immediately emplaced or employed. Aerial photo reconnaissance did not detect all of Enubuj's road and trail network, and bombardment debris blocked many of those that did appear on photographs. Bulldozed trail locations were unknown to the landing gun crews. Guides who knew battery locations met the howitzer DUKWs waiting on the beach, saving valuable time during emplacement operations.

Rotary Wing Operations. The Enubuj operations occurred well before the introduction of rotary wing aircraft. However, air assault operations from over the horizon could be a technique considered in a modern operation of this type. Rotary wing aircraft can set the 105-mm and 155-mm towed guns down in clearly marked firing positions and greatly reduce the time gap between landfall and the first round fired. Helicopters would be especially useful in occupying positions on the firing island during hours of darkness to avoid telegraphing operational intent and maintaining surprise.

Displacing one 105-mm artillery battalion by watercraft to support operations north of Kwajalein required a small-scale repeat of the Enubuj landing. The displacement was successful, but it con-



Redlegs set up 105-mm howitzer firing positions on Enubuj, 31 January 1944. Note at least 10 tree stumps indicating trees that needed to be cut down in the battery area.

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sumed a large amount of time and would not have been possible under high surf conditions. Future commanders should consider displacing the guns, crews and ready ammunition in similar situations by helicopters.

Reconnaissance. One officer and three enlisted personnel from each firing battery accompanied 2-17 IN on the initial assault landing on Enubuj in the eight waves coming ashore. Each section carried equipment to mark routes and gun positions as well as a radio to communicate directly with the parent battery. The value of this section is that terrain conflicts can be resolved before the arrival of the guns, and beginning this task while the island was not secure saved valuable time when events delayed the 155-mm howitzers from landing.

Engineer Support. Engineer detachments with power saws and earthmoving equipment will be needed on firebase islands in virtually all theaters, not just the Pacific. Enubuj featured thick groves of trees that required gun crews to use crosscut handsaws and axes to clear paths to gun positions and clear the position itself by eliminating trees that masked low-angle fire. The artillery AAR for the operation recommended equipping each battery with at least one crosscut saw.

The immediate solution is to use engineers or other trained personnel with chain saws to clear positions, while the larger solution is to increase the provi-

sion for heavy engineer equipment. Presently, not all engineer units have chain saws. It will take time to procure them and train operators.

Bulldozers, bucketloaders and, to a lesser extent, small emplacement excavators (SEEs) are essential in sandy terrain to clear trails, push up protective berms and excavate firing positions. They should be allocated to the first echelon of the occupying force.

Two bulldozers at Enubuj landed after the initial waves of assault troops and immediately began clearing paths for exiting the beaches and movement to battalion areas. This greatly speeded the occupation of firing positions. Other vital tasks accomplished by the bulldozers included improving the trail networks and assisting in recovering vehicles stuck offshore on the rough coral.

Class V. The constricted area of Enubuj jammed 12 firing batteries into an area measuring 900 meters by 150 meters. This caused the firing batteries to stockpile charges and fuzes in and around the gun positions, posing a significant potential hazard from Japanese counterbattery fires or accidents igniting ammunition. The battalion commanders deemed this an acceptable risk concerning counterbattery fire.

The Japanese had sited artillery weapons on Kwajalein to cover Enubuj, and though most disappeared under the pre-invasion bombardment, Japanese artillery did lob several shells at 2-17 IN during the capture of Enubuj. Addition-

ally, not all Japanese artillery capable of reaching E nubuj was eliminated until the final day of the operation on Kwajalein.

Although Japanese counterbattery did not hit the stacked ammunition, a firing accident threatened the 145th FAB. A 155-mm howitzer shell burst prematurely in a gun tube on D+2, killing one cannoneer and wounding 13 others. Even worse, the explosion set fire to stacks of nearby powder charges. Only decisive action in removing other powder charges and fighting the fire prevented a major accident.¹⁹

Marine Corps experience at Tarawa three months before Kwajalein indicated the need for a rapid, responsive floating Class V resupply system. This was a wise decision as the artillery on E nubuj fired more than 70,000 rounds during Operation Flintlock, approximately 1,600 short tons.²⁰ DUKWs could carry the howitzer and just 24 rounds of ready ammunition.²¹

Planners decided to use seagoing landing craft as floating supply dumps with the DUKWs ferrying the ammunition ashore.²² This system could not keep pace with the rapid fire of the artillery crews on E nubuj, so the sea-going landing craft were beached on the shore of E nubuj and served as ammunition supply points for a shortened DUKW shuttle.

This technique holds some merit to operations in the future. If the enemy situation permits, ammunition landing craft air cushioned (LCACs) could shuttle ammunition ashore or a larger vessel could be beached to offload Class V directly onto firing battery FA ammunition support vehicles (FAASVs) or service battery heavy expanded-mobility tactical trucks (HEMTTs) and family of medium tactical vehicles (FMTVs). This method would depend on tide, surf and

beach conditions but would eliminate repetitious handling of Class V and conserve valuable time.

Additionally, close attention is needed for ammunition load plans. Soldiers unloading ammunition for the guns on E nubuj found the ammo crates did not have clear markings. In addition, the operation lacked supervisors with detailed knowledge of the mission's requirements. The gun crews used smoke shells for registration fires, but the ammunition loads initially contained very few of these valuable munitions. Trained supervisory personnel with an understanding of the fire plan and clearly marked containers would have done much to prevent the shortage of registration smoke shells.

Crew Rest. Battalion plans accommodated the need for rest and rotation of the firing crews during around-the-clock operations. All five battalions supplemented the howitzer squads with trained maintenance personnel to relieve some of the crew positions. Loaders were rested after 10 minutes of continuous firing, and gunners rotated every 30 minutes of firing.²³

The E nubuj gun crews could not have maintained four days of near-continuous operations without a dedicated, enforced rest and rotation plan. In future operations of this type, fatigue will become an obvious safety and accuracy factor if a rest plan similar in principle to this one is not used.

The Army and Marine Corps both went on to use artillery fired from adjacent islands to support assault landings later in the war. A notable example is two 155-mm battalions from the Army's 420th Artillery Group engaging targets on Okinawa from an offshore island.²⁴ The two battalions fired from positions on Keise Shima from April to June 1945.²⁵ Keise Shima, as well as all of the

operations following E nubuj, made extensive use of the lessons learned at Kwajalein Atoll.

Assaulting a hostile shore in the next conflict may not be the exclusive domain of the Marine Corps and its organic artillery. The potential exists for the Army to either conduct its own amphibious operation or provide artillery support to a Marine Corps landing as part of a joint task force operating in island or littoral areas. Should either of those two contingencies happen, applying the lessons learned on E nubuj during Operation Flintlock will go far to ensure the Army's artillery plays a decisive role in winning the battle.



Major Scott T. Glass, Quartermaster Corps, is the G4 for the XVIII Airborne Corps Artillery at Fort Bragg, North Carolina. He commanded the Forward Support Company (Airborne) of the Lion Brigade and served as S3 for the 22d Area Support Group, both in the Southern European Task Force, Vincenza, Italy. He was Commander of Headquarters and Service Company and then S3 of the 528th Special Operations Battalion, Special Operations Command at Fort Bragg. Also at Fort Bragg, Major Glass was the S1 of the Division Support Command and then Assistant Plans and Operations Officer in the G4 of the 82d Airborne Division. In addition, he served in the 1st Infantry Division (Mechanized) at Fort Riley, Kansas, as the S3 of the 201st Forward Support Battalion. He's a graduate of the Command and General Staff College, Fort Leavenworth, Kansas, with a Master of Military Arts in Military History and holds a Master of Arts in Human Resource Development from Webster University in St. Louis, Missouri.

Endnotes:

1. Kwajalein: Joint Information Center Bulletin No. 53-43, 1 December 1943, 34.
2. *Flintlock Operation: Volume II, Southern Landing Force Artillery After Action Report*, 26 February 1944, 10.
3. Philip A. Crowl and Edmund G. Lowe, *Seizure of the Gilberts and Marshalls, The United States Army in World War II: The War in the Pacific* (Washington DC: United States Army, 1955), 177.
4. *Ibid.*, 178.
5. George Forty, *US Army Handbook, 1939-1945* (Gloucestershire, UK: Alan Sutton Publishing, 1996), 146.
6. "7th Division Artillery AAR for Operation Flintlock" (Unpublished), Combined Arms Research Library, Fort Leavenworth, Kansas.
7. Crowl, 221.
8. Kwajalein: Joint Information Center Bulletin, 7.
9. Crowl, 222.
10. *Ibid.*, 223-225.
11. *Ibid.*, 227.
12. *Ibid.*

13. *Ibid.*, 227-250.
14. *Ibid.*, 247-250.
15. *Flintlock Operation: Volume II*, 11.
16. Crowl, 295.
17. *Ibid.*, 189-190.
18. *Ibid.*, 227.
19. *Ibid.*, 261.
20. *Flintlock Operation: Volume II*, 11-15.
21. *Ibid.*, 17.
22. Crowl, 190.
23. *Flintlock Operation: Volume II*, 15-16.
24. Lida Mayo, *The Ordnance Department: On Beachhead and Battlefield, The United States Army in World War II: The Technical Services* (Washington, DC: United States Army, 1986), 458.
25. Roy E. Appleman, James M. Burns, Russell A. Gigeler and John Stevens, *Okinawa: The Last Battle, The United States Army in World War II: The War in the Pacific* (Washington, DC: United States Army, 1948), 57.

Chiefs of Field Artillery

MG William J. Snow– 15 Feb 1918 - 19 Dec 1927
MG Fred T. Austin– 20 Dec 1927 - 15 Feb 1930
MG Harry G. Bishop– 10 Mar 1930 - 9 Mar 1934
MG Upton Birnie, Jr.– 10 Mar 1934 - 24 Mar 1938
MG Robert M. Danford– 26 Mar 1938 - 9 Mar 1942
BG George R. Allin– 20 Jan 1941 - 31 Jun 1942*
BG Jesmond D. Balmer– 1 Jul 1942 - 11 Jan 1944
MG Orlando Ward– 12 Jan 1944 - 30 Oct 1944
MG Ralph McT. Pennell– 31 Oct 1944 - 30 Aug 1945
MG Louis E. Hibbs– 30 Aug 1945 - 4 Jun 1946
MG Clift Andrus– 20 Jun 1946 - 15 Apr 1949
MG Joseph M. Swing– 9 Apr 1949 - 31 Mar 1950
MG Arthur M. Harper– 2 Apr 1950 - 16 Nov 1953
MG Charles E. Hart– 4 Jan 1954 - 28 May 1954
MG Edward T. Williams– 8 Jul 1954 - 23 Feb 1956
MG Thomas E. de Shazo– 12 Mar 1956 - 31 Jan 1959
BG Philip C. Wehle– 31 Jan 1959 - 15 Feb 1959
MG Verdi B. Barnes– 15 Feb 1959 - 25 Mar 1961
MG Lewis S. Griffing– 6 Apr 1961 - 31 Mar 1964
MG Harry H. Critz– 1 Apr 1964 - 15 May 1967
MG Charles P. Brown– 5 Jul 1967 - 20 Feb 1970
MG Roderick Wetherill– 24 Feb 1970 - 31 May 1973
MG David E. Ott– 1 Jun 1973 - 24 Sep 1976
MG Donald R. Keith– 9 Oct 1976 - 21 Oct 1977
MG Jack N. Merritt– 22 Oct 1977 - 26 Jun 1980

MG Edward A. Dinges– 27 Jun 1980 - 27 Sep 1982
MG John S. Crosby– 28 Sep 1982 - 3 Jun 1985
MG Eugene S. Korpala– 4 Jun 1985 - 17 Aug 1987
MG Raphael J. Hallada– 20 Aug 1987 - 7 Jul 1991
MG Fred F. Marty– 7 Jul 1991 - 22 June 1993
MG John A. Dubia– 23 Jun 1993 - 7 Jul 1995
MG Randall L. Rigby– 7 Jul 1995 - 6 Jun 1997
MG Leo J. Baxter– 6 Jun 1997 - Present

The War Department created the Office of the Chief of Field Artillery in Washington, DC, on 15 February 1918 to train and equip the Field Artillery during World War I and made MG Snow the first Chief of Field Artillery. After the war, the War Department reappointed Snow as the Chief of Field Artillery in 1920 to perform the same functions. Then the War Department abolished the Office of the Chief of Field Artillery on 9 March 1942 as part of a wartime reorganization.

In 1983, the Department of the Army reestablished the Office of the Chief of Field Artillery to oversee the development of Field Artillery tactics, doctrine, organization, equipment and training. Although the War Department and, later, the Department of the Army did not recognize an official Chief of Field Artillery from 1942 through 1983, the Commandants of the US Army Field Artillery School during those years considered themselves to be Chiefs of Field Artillery.

*The dates of BG Allin's service as "Chief of Field Artillery" while he was Commandant of the Field Artillery School appear to overlap with MG Danford's in Washington, DC, but the War Department discontinued the office officially in Washington in 1942, leaving the Commandants to fill the role.

Fort Sill Sergeants Major 1959 to the Present

SGM Jack Stovall– Sep 59 - May 61
SGM John R. Park– Jun 61 - Sep 62
SGM Roy D. Shonk– Sep 62 - Nov 62
SGM Ted G. King– Nov 62 - Sep 67
CSM Bobbie R. McGuire– Sep 67 - Jun 68
CSM Hal E. Hulett– Jun 68 - Oct 70
CSM Al C. Irby– Oct 70 - Oct 72
CSM Rueben L. Thomas, Jr.– Oct 72 - Aug 74
CSM Melvin J. Holifield– Sep 74 - May 79
CSM Easton J. Ardoin– Jun 79 - Oct 79

CSM Robert E. Liberty– May 80 - Feb 81
CSM Hassen A. Cara– Oct 79 - May 80 and
 Feb 81 - May 81
CSM Louis E. McMillan– May 81 - Aug 84
CSM Oren L. Bevins– Aug 84 - Oct 87
CSM David P. Taylor– Dec 87 - Sep 91
CSM David P. Stewart– Sep 91 - Jul 93
CSM James C. McKinney– Jul 93 - Oct 95
CSM William J. Perry III– Oct 95 - Oct 97
CSM William J. Kermod– Oct 97 - Dec 98
CSM Anthony J. Williams– Dec 98 - Present



Honor, Courage, Commitment

Not Just Words

by Colonel Lynn A. Stuart, USMC

Our country has the best ships, the best planes and the best tanks in the world. But this equipment is useless unless the American men and women who maintain and operate this equipment learn and live the ideals of honor, courage and commitment that are the tenets of a great America.

The Marine Corps is about *people*. The lifeblood, the heart and the soul of the Marine Corps lies in the American men and women who fill the Corps' ranks.

Living the Core Values. On 19 April 1995, the Alfred P. Murrah Federal Building in Oklahoma City was bombed. After 40 hours of non-stop relief effort, Michael Curtain, a New York City police officer working for the Federal Emergency Management Agency (FEMA) Task Force, was at the edge of physical exhaustion. As he scrambled across the vast wreckage of the torn Federal Building, the sight of a body covered in the rubble stopped him in his tracks. It was the body of a man, but Curtain was focused on what the man was wearing.

Curtain recognized the material of the trousers: deep blue with a broad red stripe, the Marine Corps "blood stripe." They were the trousers of a Marine.

Curtain knew this immediately because he too was a Marine, a Marine Reserve first sergeant. He realized he had found the body of Captain Randolph Guzman, the recruiting station's executive officer.

Curtain asked around to find out who among the rescuers might also be Marines or former Marines. He found Manny Hernandez and Juan Garcia, both New York City policemen, and Ray Bonner, a paramedic, all former Marines. Now, the first sergeant had a four-man fire team.



Because of the danger inherent in the unstable section in which Guzman's body lay trapped, most recovery efforts were focused in other areas of the building. However, Curtain approached officials and told them he and a team of former Marines had a special interest in recovering Guzman's body. Approval was granted to this "Marine Team" to accomplish its special mission, but the team only had a four-hour window of opportunity.

Already greatly fatigued, these men worked feverishly under extremely dangerous conditions in an area of the building on the verge of collapse. The building shifted twice as they jackhammered through tons of concrete, but they refused to stop.

When they finally freed the captain's body, Curtain knelt beside him, covered Guzman's face with his hand and closed the captain's eyes. A United States flag sent up the rubble pile was solemnly draped over the captain's body. A former Air Force officer who had been observing the Marine Team recovery efforts happened to have an American flag in his nearby car and sent it up for Captain Guzman.

As the team lifted Guzman from the rubble and carried him out, one could hear a pin drop in the ruins of the Federal Building. Engines were turned off, crane operations ceased, jack hammers fell silent and all rescue work stopped.

People removed their hard hats and bowed their heads. Many cried.

Former Marine Manny Hernandez summed up Marine values when he said, "It was just a simple thing, but it had to be done. Once we saw the blood stripe on Captain Guzman's trousers, we had no choice. And when we came out with the flag-draped captain, I saw why I was a Marine once. I wouldn't expect anything else from any other former Marine. It is what I was taught in boot camp. It was the honorable thing to do."

The Tradition Continues. Marines are taught basic traits that have served them well throughout their history: discipline, teamwork, leadership, patriotism and, most importantly, core values.

Core values—honor, courage, commitment—are not just words to Marines whose lives depend on each other. These values have been part of the traditional ethos of Marines regardless of whether they carried a flintlock musket or a modern M-16 rifle. The spirit that guides our actions lives in our traditions.

Tradition is not something one can simply write down and file away for another day. It cannot be reduced to regulations, manuals or bits and bytes of data. Tradition embodies values that never can be replaced by the cold precision of machines and electrons. Tradition is that essence of the human spirit that's passed on as one person looks another in the eyes and gives an encouraging slap on the shoulder for doing "the right thing." It is the sum total of the culture passed from one generation to the next—like taking care of Marines, never leaving fallen comrades behind and doing the honorable thing—just like Michael Curtain and his team at the bomb site in Oklahoma City did.

Such traditions are even more important as we move into the 21st century. The future will be fast-paced and full of changes. Marines will be required to show the same ingenuity, innovation and values they used to develop the amphibious doctrine before World War II, the close air support techniques during the Korean War and the Marine Expeditionary Unit (MEU) concepts that have served our nation so well during the last decade.

Today, Marines are using the latest computers, digital communications equipment and training simulators available. However, when it comes to our

traditional core values, the Marine Corps will not change. The technology of the future will be useless to our Corps unless we have Marines responsible enough to apply the technology.

The result of this tradition and focus on people is an esprit, a bond of trust and a family of closeness unique to the Marine Corps. Individual Marines internalize the ethos and values of the Corps. You can see it in the way a Marine wears his dress blue uniform. You can hear it when a Marine says, "I'm a Marine"...not "I'm in the service." It's something that stays with Marines forever. Something that makes us say, "There is no such thing as an ex-Marine." It's what Michael Curtain, Manny Hernandez, Juan Garcia and Ray Bonner felt. You can sense it in Marines who live up to the same standards 24 hours a day, on duty or off, on post or off. A Marine is an individual you can trust, and trust is far more valuable than any piece of equipment.

Every year more than 30,000 Marines complete their enlistment or retire. They return to civilian society even more productive and responsible than when they entered the Marine Corps. They

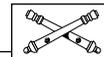
achieve great things. They are responsible for success stories in all walks of life: government, business, the community.

The slogan, "Once a Marine, always a Marine," doesn't mean Marines never return to civilian society. It means that when they do return, they bring Marine core values with them.

Service to this great nation comes from people who join our ranks—people like the former Marines in Oklahoma City. It's not that the Marine Corps wouldn't like to have the best equipment money could buy; everyone knows the Corps's gear is relatively old and worn. It's not that we have control over the numbers of dwindling Marines on-hand to meet the ever-increasing worldwide obligations. The decisions on equipment modernization and end-strength numbers are ultimately made by American taxpayers and their elected representatives.

What the Marine Corps can control, however, is the values we instill in our people. That's why the process of *making Marines* is so important. Marines with core values have been winning our country's battles for more than 222 years.

People are the heart and soul of the Marine Corps, and our Marine values—honor, courage, commitment—are the heart and soul of our people. *Semper Fidelis*



Colonel Lynn A. Stuart, US Marine Corps, is the Commander of the Marine Corps Artillery Detachment at Fort Sill, Oklahoma. In his previous assignment, he commanded the 14th Marine Regiment, US Marine Corps Reserves, with its Headquarters in Dallas, Texas, and served as Senior Regional Representative for the Commandant of the Marine Corps in a four-state area, including Oklahoma at the time of the Murrah Federal Building bombing. In other assignments, he served as Commanding Officer of 1st Battalion, 11th Marines at Camp Pendleton, California, the same regiment with which he had deployed to the Gulf for Operations Desert Shield and Storm as its Operations Officer. Colonel Stuart is a graduate of the Army War College at Carlisle Barracks, Pennsylvania, his hometown. In August, he will become Chief of Staff of Marine Corps Base, Camp Pendleton. (This article was taken from one by the same name printed in the "Commanders' Column" section, Page 4A, of *The Cannoneer*, Fort Sill, Oklahoma, 14 May 1999.)

Photo by TSgt Kimmy D. Tucker, Air National Guard, OKC, OK

