A Joint Professional Bulletin for US Field & Air Defense Artillerymen

Fires

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Front Cover: SSG Benjamin Schwengle and SGT Christopher Golmon, A Battery, 2nd Battalion, 17th Field Artillery, prepare for a raid in the Zafaraniya area of southeast Baghdad in the Karada Security District. (Photo by SSgt Bronco Suzuki, USAF)

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PURPOSE: Founded in 2007, ***Fires*** serves as a forum for the professional discussions of US Army and Marine Field Artillery (FA) and Army Air Defense Artillery (ADA) professionals, both active and Reserve Component (RC); disseminates professional knowledge about the FA's and ADA's progress, developments and best use in campaigns; cultivates a common understanding of the power, limitations and application of joint fires, both lethal and nonlethal; fosters joint fires interdependency among the armed services; and promotes the understanding of and interoperability between the FA's and ADA's active and RC units—all of which contribute to the good of the FA and ADA, Army, joint and combined forces, and our nation.

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The Enduring Spirit of the Artillery

By Major General David C. Ralston, Chief of Field Artillery

On 13 September, Brigadier General Pete Vangjel will have *the* best job in the Army—*Chief of Field Artillery*—and begin a tenure that will see major progress toward building the Fires Center of Excellence at Fort Sill, Oklahoma…I'm just a little bit jealous. As your outgoing 36th Chief of Field Artillery, I can report the job has been an exhilarating and all-too-fast "ride," and I've enjoyed every minute of it.

During a recent visit to Fort Sill, General Felix Sanz, Chief of the Spanish Defence Staff and a great Artilleryman, reminded me of the outstanding heritage and lineage of our branch. He spoke of the "Spirit of the Artillery" and how the branch's history can be an inspiration for those of us entrusted with leading it. He was absolutely correct in his counsel: Sometimes we forget our great heritage and the Spirit of the Artillery that so many have displayed throughout history—and we must not.

Artillery History of Leadership. American Artillerymen only need to look back to Colonel (later General) Henry Knox and his building of the Artillery for the Continental Army. General Knox personifies the Spirit of the Artillery. His leadership under the most difficult conditions is one of the most remarkable in military history—*volunteering* to drag his cannons on sledges through snow and rough terrain from Fort Ticonderoga and Crown Point in New York to Boston where George Washington and our Army were fighting to free the city in early 1776.

Then in the frozen December of that same year, General Knox's Cannoneers crossed the Delaware River. These remarkable Redlegs ferried their cannons across the water in the dead of night using any boat or raft that could be scrounged and then drug them through the snow eight miles to the British Army encampment in Trenton, New Jersey. With cannons blazing, Washington's Army surprised the much larger British force at Trenton, and roundly defeated that force.

The first American Artillerymen repeatedly overcame insurmountable odds, and their example should serve as inspiration for today's gunners.

In addition, we have other Artillerymen who have made their marks in American history, and they remind us of how great our branch is. Harry Truman passed through Camp Doniphan at Fort Sill en route to Europe where he commanded a battery in World War I. The ascent from battery commander to Commander-in-Chief of all US forces in the span of 27 years requires the kind of leadership that our branch is known for. There's no doubt that President Truman's service as a Field Artillery officer helped form a foundation for his presidency.

While you may not recognize the name of Brigadier General William Cruikshank, his contributions as one of my predecessors are still evident today. In 1933, General Cruikshank had the Herculean task of managing the Civilian Conservation Corps (CCC) in several western states while simultaneously serving as Commandant of the Field Artillery School. The CCC projects conducted on his watch led to much of the public infrastructure in use today throughout Oklahoma, Texas, Colorado and Wyoming—a significant body of work performed under the leadership of a fellow Redleg.

In 2007, more than 230 years removed from the American Revolution, we must remind ourselves that we're not the first Artillerymen who faced challenges. In fact, our history reflects Colonel Knox's and General Washington's reforming the Artillery. As quoted from Fort Sill Historian Dr. Boyd L. Dastrup's *King of Battle: A Branch History of the US Army's Field Artillery*, they reformed the Artillery "by *obtaining* French artillerists [as advisors], *organizing* more artillery regiments, and *creating* artificer companies [of equipment specialists] to maintain artillery materiel [emphasis added]." *Simultaneously*, they were engaged in the Revolutionary War.

"Fast forward" to the present day, and we see striking similarities: we've *added* organic artillery battalions to our modular brigade combat teams (BCTs) and are *organizing* fires brigades; we're *partnering* with industry to *develop* and *maintain* the most technologically advanced materiel possible; and our Soldiers are performing *admirably* at war against determined enemies in counter-insurgency operations (COIN).

Challenges as Opportunities. The earliest leaders of our Army and Artillery faced challenges, but they exercised great leadership and vision, thus transforming their challenges into opportunities. As a branch, we must keep the Spirit of the Artillery alive and continue to find opportunities in this modern-day transformation. The spirit of our gunners from wars long past—and many in the current fight—should serve as our inspiration.

I'm confident our Artillery ancestors would be proud. We've adapted to the COIN environment through the efforts of Soldiers and leaders at the tactical level. Our Army's senior leaders have entrusted Field Artillery units with the most diverse set of missions of any branch, supporting the Army Chief of Staff's vision for Pentathlete Warriors. On any given day in Iraq and Afghanistan, our Redlegs are

firing rounds, acquiring targets, shaping the battlespace, providing convoy security, recovering enemy ammunition and weapons, and planning and conducting information operations campaigns.

The skeptics say the Artillery has seen better days in earlier wars—that we don't have a major role in the current fight. It is their nature as skeptics to say such things, but they are *wrong.*

Ask the maneuver commanders who have been leading their combined arms units in varying levels of combat intensity over the past six years, and I assure you that "irrelevance" and "indifference" with respect to fires or the adaptable performance of Artillerymen aren't in their vocabulary. Given the enormously diverse array of missions our Marine and Army Artillery professionals are executing with excellence, I'd argue this has been one of our *finest* hours.

As we stand up the Fires Center of Excellence, increase our already astonishing precision capabilities, continue to adapt our Field Artillery School curriculum to the current and future operating environments and continue to transform our force structure to better meet our national security demands, I'm excited about where I see the Field Artillery heading. Our branch will continue to evolve, turning challenges into opportunities, and each of you will be a part of that evolution.

As I reflect on my 32 years as a Redleg, I admit there are times I took the privilege of wearing the crossed cannons for granted. While all of us may experience this at various points along the way, we cannot forget that we serve in a remarkably noble and honorable profession as Artillerymen and Soldiers. It should be a source of pride every morning as you put on your uniform and lace up your boots.

We all encounter professional challenges, regardless of rank or position. But for inspiration, look no further than the spirit of General Knox and our colonial Artillerymen who overcame inferior equipment and training and incredibly difficult conditions at the beginning of the Revolutionary War, only to become a decisive force in the end—with the help of some loyal allies. Yes, joint and multinational collaboration is not a 21st-century invention but rather a product of our earliest years as a nation.

The Artillery and America's Destiny. So, on 13 September when I take one last walk out of McNair Hall as your Chief and Commandant, there will be some sadness. But I'll be buoyed by the words of a great Artillery historian, Colonel Wilbur S. Nye, taken from his classic book *Carbine and Lance: The Story of Old Fort Sill.* When introducing the second edition of his book in 1942, he said, "The Field Artillery and the Sill graduates will be heard from again [in World War II]." In the third edition published in 1969, he went on to say, "That prophecy was realized magnificently, and in the succeeding years the sons of Fort Sill are continuing to help forge the Nation's destiny. The influence of the Old Post will endure and grow as time rolls on."

As I pass the colors to the able hands of General Vangjel, I couldn't agree more with Colonel Nye's assessment.

Godspeed to you all. *Create the Thunder!*

Where are the MMCs?

The 19th Support Center (SC), MMC for V Corps, inactivated in June in Germany. (Left to Right) BG Michael Lally, Commanding General of the 3rd Corps Support Command, COL Thomas Kelly, Commander of the 19th SC and CSM Wallace Sreaves, 19th SC Command Sergeant Major, case the colors of the 19th. (Photo by SPC David Chapman, 3rd Corps Support Command Public Affairs)

Probably one of the most dramatic changes in the concept for logistics support to the modular force has been in the area of materiel management. Gone are the division, corps and theater Army materiel management centers (MMCs). And so, rightfully, there is some angst about what happened to all of the materiel management functions formerly performed in these MMCs.

The article by the same title that was written by Major General Mitchell H. Stevenson, Commanding General of the Army Combined Arms Support Command and Fort Lee, Virginia, accounts for these functions and discusses the new, more streamlined ways of providing them. The article was published in the May-June *Army Logistician*.

The article outlines the enablers coming online, such as the Property Book Unit Supply Enhanced [PBUSE], the Single Army Logistics Enterprise [SALE], business intelligence tools and the continued improvements to the Battle Command Sustainment and Support System (BCS^3) that will make materiel management easier and more logical.

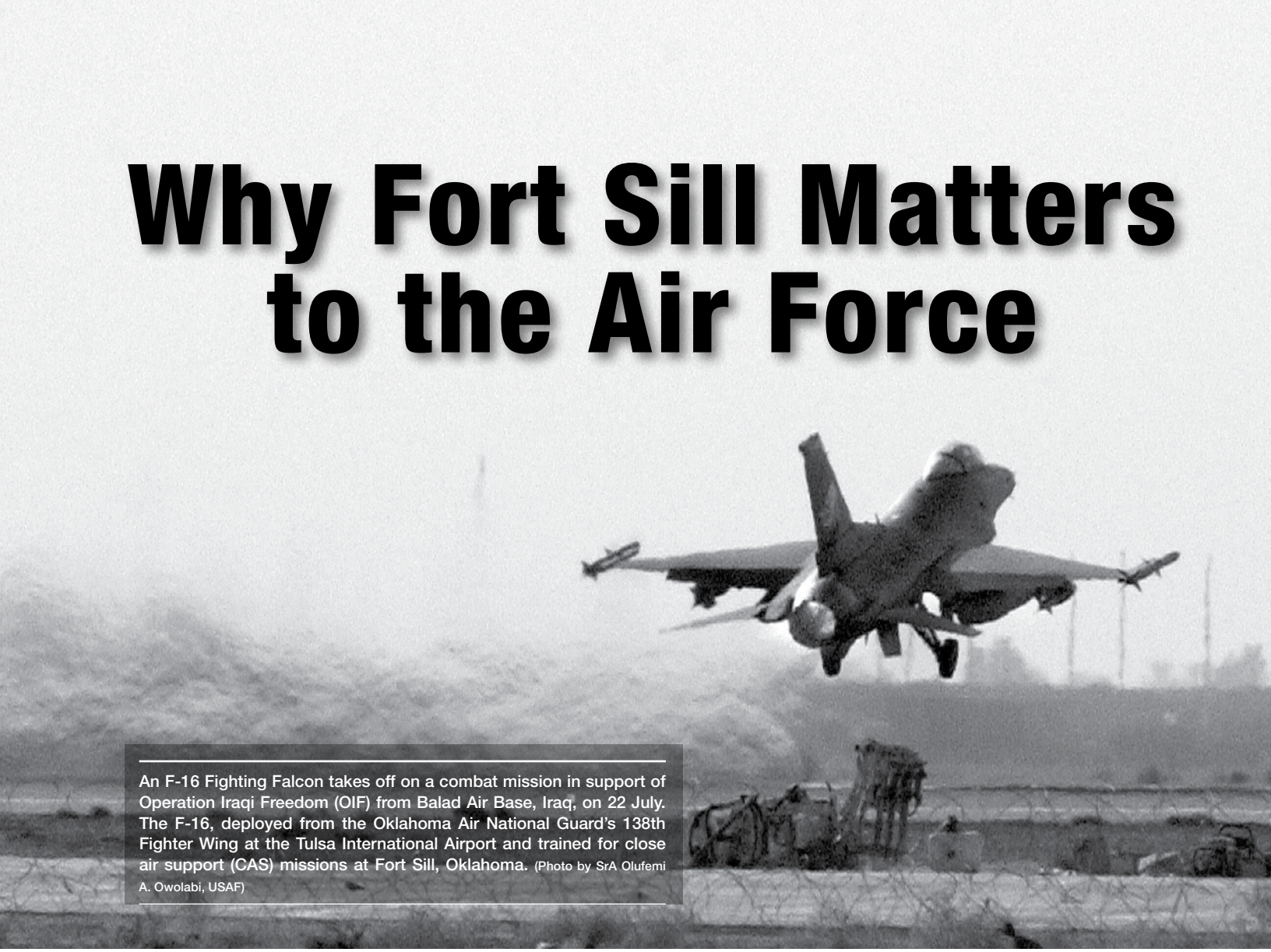
The article also outlines how the logistics force has been streamlined for materiel management in the modular force. This includes how brigade support battalions (BSBs) are now organic to most modular brigades, for example the fires brigades, and how echelons above brigade sustainment is managed by a theater sustainment command (TSC) or an expeditionary sustainment command (ESC) of a TSC.

It examines five management areas and shows where each has changed in the modular force. These include property book; division ammunition office; maintenance management; general supply office; automated supply management; Classes II, IIIP, IV and IX supply; and logistic units' reporting chain and relationships.

Where is materiel management? It is still there but now embedded within a capable, efficient, streamlined support structure. For more information or to read the entire article, go to the *Army Logistician's* website at **http://www.almc.army.mil/alog/issues/May-June07/where_mmc.html.**

Editor

Why Fort Sill Matters to the Air Force



An F-16 Fighting Falcon takes off on a combat mission in support of Operation Iraqi Freedom (OIF) from Balad Air Base, Iraq, on 22 July. The F-16, deployed from the Oklahoma Air National Guard's 138th Fighter Wing at the Tulsa International Airport and trained for close air support (CAS) missions at Fort Sill, Oklahoma. (Photo by SrA Olufemi A. Owolabi, USAF)

By Lieutenant Colonel Neil E. Roghair, USAF

In 1995, an A-10 released a Guided Bomb Unit (GBU)-12 laser-guided bomb during a training exercise at Fort Sill, Oklahoma. The bomb guided onto the laser designator rather than the target and resulted in the death of an Army captain and wounded 12 other Soldiers. That infamous, fatal training accident ended close air support (CAS) training at the Field Artillery (FA) Center for nearly a decade.

The Air Force quickly pulled out of Fort Sill (or was kicked out, depending on whom you talk to), but most tend to agree that both services overreacted to the event, and joint training for FA Soldiers suffered from neglect for years.

The repercussions of that training accident would not be realized fully until the US had a significant number of troops on the ground in Afghanistan and, later, Iraq, and the need for CAS dramatically increased. In the months following September 11th, 2001, senior leaders in both the Army and Air Force quickly realized that the absence of an Air Force presence at Fort Sill was a major mistake in an era that requires unprecedented levels of joint coordination, training and cooperation.

After Operation Anaconda at the beginning of Operation Enduring Freedom (OEF), harsh accusations of inadequate support from the Air Force came from some senior Army leaders. Airmen countered that the Army equally was at fault for not properly deploying and employing the air power command and control resources at its disposal.

Both sides were correct to some degree, and in spite of the initial mudslinging, what transpired was a healthy and productive dialogue between both services that led to tangible improvements in joint cooperation. Key Army leaders pleaded for the return of an Air Force detachment to Fort Sill, and the Air Force Doctrine Center at Maxwell AFB, Alabama, responded by filling the one billet it had on its books. The Air Force returned to Fort Sill in May 2005.

Fort Sill is designated as the Army's Fires Center of Excellence (CoE) and is emerging as a joint CAS center. Since 2001, Fort Sill aggressively has developed live and simulated CAS training for Soldiers at multiple levels. The Air Force recognizes this strong momentum and currently is considering training Air Force joint terminal attack controllers (JTACs) at Fort Sill.

Why Fort Sill? When the Air Force goes to the field with the Army, it generally finds itself standing next to fire supporters. A JTAC generally coordinates with a fire support NCO or fire support officer (FSO). A brigade air liaison officer (ALO) works with the fires cell, as do the ALOs at the division and corps levels. At the corps and (or) joint task force (JTF) level, the air support operations center (ASOC) is collocated with

During an early morning mission of targeting and raids in the back of a Stryker assault vehicle, a USAF joint terminal attack controller (JTAC) alerts his counterparts about the route they will be using to travel to Baghdad. (Photo by TSgt Cecilio Ricardo, USAF, US Central Command Air Forces)

the senior Army fires element—the fire support coordinator (FSCOORD) and his staff.

Battle command systems, such as the Advanced FA Tactical Data System (AFATDS) and Joint Automated Deep Operations Coordination System (JADOCS), are engineered at Fort Sill and require joint input. At times, the smallest input from an Airman can take a program in a different direction and enhance joint communications and command and control.

Fort Sill is involved heavily in researching solutions to airspace deconfliction for precision-guided munitions (PGMs), such as the FA's new Guided Multiple-Launch Rocket System (GMLRS) unitary, Excalibur unitary and Advanced Tactical Missile System (ATACMS) unitary. These PGMs require *dynamic* airspace clearance to maintain responsiveness. Airspace deconfliction is an issue of keen interest to Airmen, and Air Force leaders noted Fort Sill's airspace deconfliction initiatives during its annual battle lab experiment.

Air support requests (ASR) are processed on AFATDS and JADOCS. Precision weapons are guided, from time to time, by lasers held by Army or Marine forward observers (FOs) trained at Fort Sill. Precise coordinates for the Air Force's Joint Direct Attack Munitions (JDAMs) and Small-Diameter Bombs (SDBs) frequently come from fire supporters who were trained on Precision Strike Suite-Special Operations Forces (PSS-SOF) software at Fort Sill.

In the air-ground business, the Air Force might describe the FA as its "docking station." This vital link must be functional for the Air Force to plug into the larger Army operation. From the corps ALO down to the lowest echelon JTAC, Airmen work with fire supporters, and those relationships are the key to operational success.

But how are Airmen and fire supporters supposed to know how to work with each other successfully? While not the preferred method, it is not uncommon for JTACs, ALOs and their aligned fire supporters to meet for the first time at a combat training center (CTC) or a mission rehearsal exercise (MRE). In some instances, these key players meet for the first time in combat. During a fire supporter's formal training, it is not uncommon for him to receive his "joint training" from another Soldier rather than an Airman. These issues are of deep concern to senior leaders of both services and contributed to the return of the Air Force to Fort Sill.

Joint Fires Observers (JFOs). The Air Force's return to Fort Sill was kicked off on a large scale with the advent of the JFO program. Sustained operations in OEF and Operation Iraqi Freedom (OIF) highlight the need for JTACs down to the battalion and, in some cases, company levels. This low-density, high-demand Air Force career field quickly became stressed.

Throughout both OEF and OIF, a significant amount of CAS has been conducted by JTACs sitting in a battalion or brigade tactical operations centers (TOCs) while receiving targeting information from FOs "outside the wire." It quickly became apparent that joint fires training for FOs was neither standardized nor formalized, and there was no continuing requirement for FOs to work with Air Force JTACs to hone the skills required to shorten the "kill chain."

From time-to-time, Soldiers in theater find themselves in desperate situations, not in contact with a JTAC and talking directly to a fighter or bomber aircraft. Often CAS aircraft can communicate with the FO and JTAC, but the FO and JTAC cannot communicate with each other due to radio line-of-sight issues.

All of these issues led to a call from the Army for more JTACs, including Army JTACs. The request was modified to JTAC apprentice and (or) the universal observer concept, which eventually morphed into the JFO program.

The Joint Fires Observer Memorandum of Agreement was signed by the Army and Air Force in November 2005. This watershed document in Army-Air Force relations formalized FO training requirements. It led to the recognition of the JFO in joint publications and doctrine.

A Soldier with a JFO certificate has a "pedigree" recognized among JTACs, ALOs, fighter and bomber aircrews, and the entire theater air-ground system. JFO training initially was established in 2004 at Nellis Air Force Base (AFB), Nevada, but gradually migrated to the home of the Military Occupational Specialty (MOS) 13F Fire Support Specialist—Fort Sill.

The aggressive goal of eventually training more than 3,200 JFOs for the Army led the Army to hire a significant number of former Air Force JTACs as contractors. The Army also hired former JTACs as general schedule (GS) employees who maintain their JTAC qualifications.

The Oklahoma Air National Guard embraced the emerging mission and temporarily committed several F-16 pilots to the effort as it works to stand up the 138th Combat Training Squadron at Fort Sill under the Joint Air Ground Operations Group (JAGOG) at Nellis AFB. This relationship reaps dividends because it puts current fighter pilots in contact with deploying Soldiers who need this vital training.

The relationship with the F-16 unit in Tulsa, Oklahoma, also means regular air support sorties for JFO field days. This direct tie to a fighter squadron is the envy of every JTAC school in the Department of Defense (DoD)—JTAC schools at Little Creek, Virginia; Yuma, Arizona; Nellis AFB; Naval Air Station Fallon, Nevada; and Spandahlem Air Base (AB), Germany.

Joint Integration and Training. The JFO Course is hardly the only requirement for Air Force involvement at Fort Sill. For decades, the Air Force provided basic CAS instruction to Army lieutenants in the FA Officer Basic Course (OBC). This live-CAS training returned just before the formal arrival of the Air Force detachment and has expanded to include other academic and simulator missions.

Joint training also is provided to the FA Captain's Career Course where the emphasis is on how to interact with an Air Force ALO and the JTACs assigned to that captain's unit. The captains are updated on aircraft, aircraft weapons and the processes involved in requesting and employing air power in support of the ground commander's scheme of maneuver.

In close cooperation with the Joint and Combined Integration Directorate (JACI) at Fort Sill, joint instruction is provided to the NCO academy and warrant officer courses. The warrant officers are a key audience due to their vital role in the targeting process. Senior NCOs are equally important due to the number of MOS 13F Soldiers under their supervision and the role those NCOs play in setting up those JFOs (and their aligned JTACs) for success.

The Soldiers in these courses deserve high-quality training from subject matter experts (SMEs) who have executed joint fires in combat situations. In the more senior courses, the students frequently ask the hard questions based on their recent combat experiences, and they deserve SMEs who can speak with credibility about how to improve execution during their upcoming deployment.

This is the challenge for the Air Force at Fort Sill. This is the *opportunity* for the Air Force at Fort Sill.

An emerging phenomenon of our time is the establishment of joint air-ground offices on major staffs to fast-track joint issues. Fort Sill's answer is the creation of the JACI. JACI coordinates with JAGOG at Nellis AFB; the Army Joint Support Team (AJST) at Hurlburt Field, Florida; Training and Doctrine Command (TRADOC)/JAGO at Fort Monroe, Virginia; Air Combat Command's (ACC's) Joint Air-Ground Division, at Langley AFB, Virginia; US Air Forces' in Europe (USAFE's) Joint Fires CoE at Spangdahlem AB; Joint Forces Command's (JFCOM's) Joint Fires Integration and Interoperability Team (JFIIT), Eglin AFB, Florida; and a host of other key joint and coalition fires agencies. This network of joint offices accelerates joint communications and staffing processes that might otherwise get slowed down in large staff bureaucracies.

Joint Operational Fires and Effects Course (JOFEC). Most military members spend their careers perfecting warfare at the tactical level. Very few Soldiers, Sailors, Airmen or Marines spend much time at the operational level of warfare. Military services groom key general officers to command at the operational level, but those generals frequently find themselves surrounded by warriors who are tactical-level experts with little to no operational experience or training.

The Air Force has no formal training course for ASOC members. The Army has no formal training for Soldiers assigned to a battlefield coordination detachment (BCD). Corps commanders and JTF commanders frequently comment that few members of their staffs were trained sufficiently for working at the operational level of war.

To address this training gap, TRADOC tasked Fort Sill to develop JOFEC. JACI teaches this course and controls course attendance to ensure a joint student body. While the Army and Air Force still are working on developing formal training for ASOCs and the BCDs, Fort Sill aggressively is training joint audiences in operational-level issues.

JOFEC matters to the Air Force because it is a great opportunity for Airmen to attend and discuss issues with members of other services. JOFEC is also a valuable audience for the Air Force to convey what it brings to the fight in major combat operations and in today's counterinsurgency (COIN) environment. Articulating capabilities and limitations

Capt Bart Ward, USAF, explains to Soldiers at the Joint Fires Observer (JFO) Course, Fort Sill, Oklahoma, what a Forward Air Controller (FAC) (Airborne) does for CAS. (Photo courtesy of the Joint and Combined Integration Directorate, Fort Sill)

is just as important as clearing up myths and misperceptions. The discussions among the students are just as important as classroom instruction.

While not available for every course, Air Force senior mentors have been included in JOFEC instruction. The presence of a retired Air Force three-star general in the JOFEC classroom clearly conveys how important the Air Force considers joint training for key members of all services.

FSCOORD Course. Another recent development at Fort Sill is the debut of the FSCOORD Course. Army transformation and the dissolution of division and corps Artillery units led to a strong need for a training program for the fire supporters assigned to brigade, division and higher echelons. The Air Force takes note of this course, particularly air support operations group (ASOG) commanders. Many of them have commented that they wished they had attended such a course before taking their commands.

A FSCOORD generally has a long career as a fire supporter but may or may not have extensive experience coordinating with the joint community. Corps and division ALOs who work directly with FSCOORDs as "battle-buddies" quickly recognize the value of a course where they can learn together and discuss the tactical- and operational-level issues of our time.

The FSCOORD Course has enormous potential. But even if it only brings together future FSCOORDs and division and corps ALOs before being assigned to those positions, it will be a resounding success due to the joint communications and relationships it will foster. As one Air force general commented to me, "We can't afford to *not* be involved in these discussions."

Base Realignment and Closure (BRAC) and the Arrival of the Air Defense Community. The BRAC announcement of 2005 called for the collocation of the Air Defense Artillery (ADA) School with the FA School at Fort Sill. This move will bring two key branches together that a joint force air component commander (JFACC) interacts with directly. While fire support and Air Defense frequently involve very different operations and mindsets, the fact that the two schools will be at the same installation allows the Air Force to interact with both branches on a more regular basis with less resources required.

FSCOORD Course

In the past, the fire support coordinator (FSCOORD) at the brigade combat team (BCT) or division level was the FA battalion or division artillery (Div Arty) commander, and FSCOORD training was provided during their FA Pre-Command Course (PCC) at Fort Sill, Oklahoma. Under the Army's modularity design, the BCT and division FSCOORDs are members of the maneuver commanders' staffs and don't attend PCC.

The solution directed by the Chief of FA was to develop a FSCOORD Course focusing on the duties and responsibilities of FA field-grade officers and senior NCOs in the BCT- and division-level fire support cells (FSCs). The resulting pilot FSCOORD Course ran in June at Fort Sill with the second course in September; the third course will be sometime in November. Class size is targeted at a maximum of 15 students who must have secret-level clearances.

The course focuses on training Army active and Reserve Component (RC) field-grade officers as effects officers or coordinators and FSCOORDs and senior fire support NCOs as effects NCOs, operations sergeants and fire support sergeants in BCT, division and corps FSCs; Air Force personnel in air support operations squadrons (ASOS) and air support operations groups (ASOGs); and Marines in Marine Expeditionary Forces (MEFs).

The FSCOORD Course teaches students how to establish the BCT FSC, plan and coordinate fire support, execute fire support in a joint operational environment and assess the effectiveness of fire support. The course ends with an exercise that integrates all aspects of fire support.

The course incorporates the full spectrum of lethal and nonlethal fires that can be brought to bear in a ground fight and instruction on joint targeting, Army operational electronic warfare (EW) and information operations (IO). It integrates video-teleconferences (VTCs) with FSCOORDs in theater and practical exercises focused on the BCT, division and corps ground fights.

To enroll in this course, contact Major Andrew S. Moy, Analysis Branch, Directorate of Training and Doctrine (DOTD), at DSN 639-4280 or commercial 580-442-4280 or email him at andrew.moy@conus.army.mil.

MAJ Andrew S. Moy, FA
Analysis Branch, DOTD
Fort Sill, OK

The Air Force Doctrine Center's presence at Fort Sill can benefit from day-to-day interaction on Air Defense issues as well as CAS and fire support issues. Both branches are affected by airspace coordination and deconfliction issues, which are clearly among the most difficult issues being worked in our time.

A JFACC generally is designated as the area air defense commander (AADC), and logic would tell us that he only would benefit from deeper involvement with the ADA community.

At the same time, digital connectivity with both communities is vitally important. While some requirements are dramatically different, there are similarities and overlaps in many digital connectivity issues being worked between the Army and the Air Force with regards to Air Defense and CAS.

The arrival of the ADA School at Fort Sill may call for a plus-up in the Air Force presence to bring in the required expertise. JACI already includes an Air Force presence, which has some Airmen with Air Defense backgrounds and (or) air operations center (AOC) backgrounds.

The Air Force detachment's relationship with Nellis AFB and Fort Sill's growing connection to distributed training sets the stage for the Air Defense community to continue to build its training programs that plug into the Air Force's Red Flag exercises and the Combined Air Operations Center at Nellis (CAOC-N).

An Air Force School at Fort Sill? Fort Sill's Battle Lab has invested an impressive amount of resources in CAS-simulation research and development. Fort Sill now finds itself with a large pool of combat-seasoned JTACs and the simulation resources to conduct significant volumes of high-quality CAS

training. In addition, Army transformation dramatically accelerates the requirement for Air Force JTACs.

With those factors in mind, JAGOG and ACC are investigating the possibility of establishing an additional JTAC-producing school at Fort Sill. This proposal would enhance Army-Air Force relations on a number of fronts. New JTACs would receive their formal training near Fort Sill's JFO schoolhouse and benefit from the many synergies of collocating the two programs.

Establishing an additional Air Force JTAC training capability at Fort Sill would free up resources at Nellis AFB to establish an advanced JTAC instructor course. The air-ground community has asked for such a course, and Fort Sill holds promise as part of the solution to bring this course to fruition.

This move also would help establish a possible ASOC formal training course at Nellis AFB (or other possible locations). Similar to the Army's desire to establish formal training for BCD members, the Air Force wants to formalize training for the Airmen assigned to support the Army in this key command and control node at the senior Army maneuver echelon in combat.

The overall goal is to provide larger numbers of better trained Airmen to support Army transformation. While still in the "thinking-out-loud" phase, the joint momentum currently at Fort Sill helps make these discussions possible. Fort Sill is on track to emerge as a "CAS CoE" that aggressively works joint CAS issues with key Air Force, Navy, Marine and Special Operations Command agencies.

The emergence of a CAS CoE conveniently located in the south-central US has far-reaching implications to the Air Force and highlights our increasing joint interdependence. Fort Sill has established a solid training relationship with the Tulsa F-16 squadron and the Barksdale AFB, Louisiana, B-52 units.

Fort Sill's joint fires training is creating new training opportunities for fighter and bomber units at Whiteman AFB, Missouri; Dyess AFB, Texas; Naval Air Station Fort Worth Joint Reserve Base, Texas; and Fort Smith, Arkansas; as well as training aircraft at Sheppard AFB, Texas; and Vance AFB, Oklahoma. In recent weeks, AC-130 units also have begun training with JTACs and JFOs at Fort Sill.

The proximity of local flying units and the ability to leverage their training requirements to support JTAC training present unique opportunities for Airmen to support Army requirements with minimal additional resources. Combining service resources for CAS training brings a clear "return on investment" and increased joint cooperation and combat effectiveness.

A lone B-52H Stratofortress bomber pulls into a refueling position over Afghanistan during a CAS mission for Coalition Forces troops-in-contact with enemy forces. The aircraft is carrying GBU-31 Joint Direct-Attack Munitions (JDAM). The bomber crew from the 20th Expeditionary Bomb Squadron, 2nd Bomb Wing, Barksdale Air Force Base, Louisiana, trained for similar missions at Fort Sill. (Photo by MSgt Lance Cheung, USAF)

The Fort Sill aircraft approach control, which historically provides thousands of instrument approaches annually for Air Force pilot training programs, now finds itself as a key enabling agency for joint training in the central US. The Army radar approach control (ARAC) provides vital support for fighter and bomber aircraft working with Air Force JTACs and Army JFOs to meet Army transformation requirements. Representative of our ever-increasing joint interdependence, the Air Force continues to pay 23 percent of the ARAC's annual manpower budget to maintain this critical joint training capability.

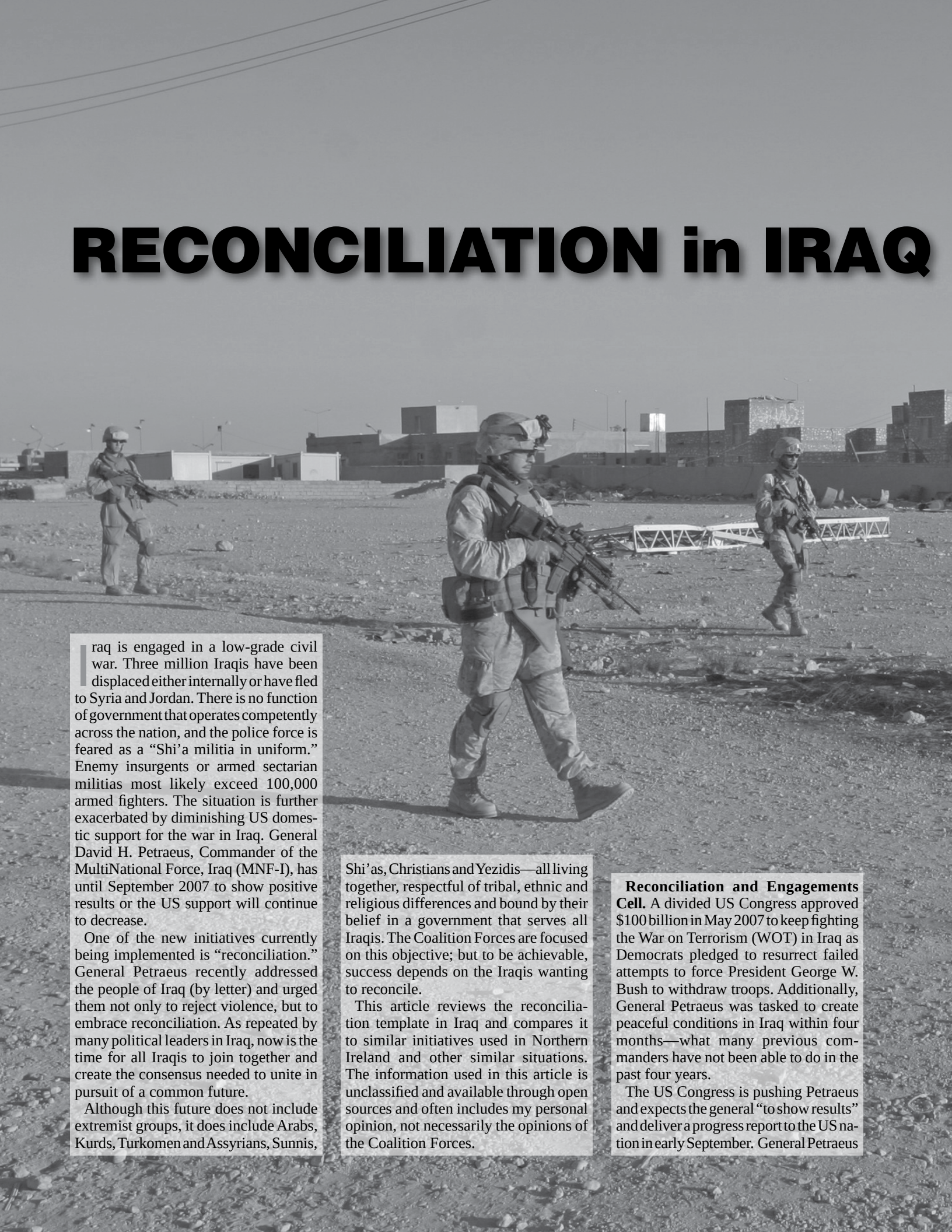
Some area flying units have expressed interest in extending Fort Sill's runway to accommodate fighter aircraft. This would allow units to load live weapons onboard—which they are not allowed to do at their home stations. It also would allow for face-to-face briefings and debriefings between pilots and JFOs/JTACs, briefings that are difficult to arrange, even in the best venues.

The joint momentum at Fort Sill is clear and attracting attention among key "blue-suiters." Fighter and bomber aircrews and senior Air Force leaders are becoming more and more aware of what our JTACs and ALOs probably have known for many years: in the air-ground business, Fort Sill matters because it touches and influences almost every aspect of our profession.

Lieutenant Colonel Neil E. "Deuce" Roghair, USAF, was the Commander of Detachment 1, 6th Combat Training Squadron, Oklahoma Air National Guard, Fort Sill, Oklahoma. His previous assignments include serving as the Director of the Air Support Operations Center (ASOC) for the MultiNational Corps in Iraq with III Corps in 2004. He orchestrated air support for the Battle of An-Najaf and was a key planner for the Battle of Fallujah II. He holds an MA in Military History with a specialization in Land Warfare from the American Military University at Manassas, Virginia. Among other assignments, he served two years with the French Air Force as an instructor pilot in the Mirage 2000, which included several missions in Operation Southern Watch in Southwest Asia, and was a battalion Air Liaison Officer in the 7th Infantry Division, Fort Ord, California. He is a command pilot with more than 2,300 hours of military flight time and 3,000 hours as a commercial airline pilot. He will retire with more than 24 years of service in September 2007.

The opinions expressed in this article are those of the author and do not necessarily reflect the official views of the US Air Force or Army.

RECONCILIATION in IRAQ



Iraq is engaged in a low-grade civil war. Three million Iraqis have been displaced either internally or have fled to Syria and Jordan. There is no function of government that operates competently across the nation, and the police force is feared as a "Shi'a militia in uniform." Enemy insurgents or armed sectarian militias most likely exceed 100,000 armed fighters. The situation is further exacerbated by diminishing US domestic support for the war in Iraq. General David H. Petraeus, Commander of the MultiNational Force, Iraq (MNF-I), has until September 2007 to show positive results or the US support will continue to decrease.

One of the new initiatives currently being implemented is "reconciliation." General Petraeus recently addressed the people of Iraq (by letter) and urged them not only to reject violence, but to embrace reconciliation. As repeated by many political leaders in Iraq, now is the time for all Iraqis to join together and create the consensus needed to unite in pursuit of a common future.

Although this future does not include extremist groups, it does include Arabs, Kurds, Turkomen and Assyrians, Sunnis, Shi'as, Christians and Yezidis—all living together, respectful of tribal, ethnic and religious differences and bound by their belief in a government that serves all Iraqis. The Coalition Forces are focused on this objective; but to be achievable, success depends on the Iraqis wanting to reconcile.

This article reviews the reconciliation template in Iraq and compares it to similar initiatives used in Northern Ireland and other similar situations. The information used in this article is unclassified and available through open sources and often includes my personal opinion, not necessarily the opinions of the Coalition Forces.

Reconciliation and Engagements Cell. A divided US Congress approved $100 billion in May 2007 to keep fighting the War on Terrorism (WOT) in Iraq as Democrats pledged to resurrect failed attempts to force President George W. Bush to withdraw troops. Additionally, General Petraeus was tasked to create peaceful conditions in Iraq within four months—what many previous commanders have not been able to do in the past four years.

The US Congress is pushing Petraeus and expects the general "to show results" and deliver a progress report to the US nation in early September. General Petraeus

Marines from the 4th Squad, 1st Platoon, A Battery, 1st Battalion, 12th Marines, who are part of Task Force Military Police, conduct a foot patrol through west Waleed, Iraq. The Marines provide security for the town on the Iraqi-Syrian border. (Photo by CPL Thomas Lew, Joint Combat Camera Center)

—Is It Achievable?

By Major Jackson A. Docherty, RA

was left pondering how to "scratch that itch" within a 90-day window.

In a preemptive strike, the Multi-National Corps, Iraq (MNC-I) Effects Coordinator (ECOORD) tasked the joint fires and effects targeting and engagements cell with synchronizing and optimizing reconciliation efforts across the echelons. In a few weeks, the plan evolved, as did the "reconciliation and engagements cell," an organization that was mirrored at the higher echelons and, to a lesser degree, within subordinate units.

Two definitions need to be addressed up front. The following definitions broadly describe the approach that the MNC-I reconciliation and engagements cell used to guide operations.

Reconciliation.[1] Ideally, reconciliation prevents using the past as the seed of renewed conflict. It consolidates peace, breaks the cycle of violence and strengthens newly established or reintroduced democratic institutions.

As a backward-looking operation, reconciliation brings about the personal healing of survivors, the reparation of past injustices, the building or rebuilding of nonviolent relationships between individuals and communities, and the acceptance of a common vision and understanding of the past by the formerly conflicting parties. In its forward-looking dimension, reconciliation means enabling victims and perpetrators to get on with life and, at society's level, establishing a civilized political dialogue and an adequate sharing of power.

In practice, such all-encompassing reconciliation is not easy to realize. The experience of a brutal past makes the search for peaceful coexistence a delicate and intricate operation. Reconciliation is not an isolated act but a constant readiness to leave the tyranny of violence and fear behind.

It is not an event but a process and, as such, usually a difficult, long and unpredictable one, involving various steps and stages. Each move demands changes in attitudes and conduct (such as tolerance instead of revenge) and in the institutional environment (such as integrating the war veterans of both sides into one national army instead of keeping ex-combatants in quasi-private militias). Above all, the approach must ensure that every step counts, every effort has value and even a small improvement is significant progress.

There is a certain danger in talking about reconciliation in terms of strict sequences. The process is not a linear one. At each stage, a relapse into more violent means of dealing with conflicts is always a real possibility, as demonstrated during the Northern Ireland peace process on many occasions. And the stages do not always follow logically one after another in any set order. Nonetheless, the stages remain essential passages for lasting reconciliation.

Engagements.[2] Engagements can be defined as "affecting reciprocally two nations or parties; to arrange or bring about through conference, discussion and compromise." Under this definition, engagements happen from the squad leader to the general officer levels. Each leader interacts, meets and coordinates with foreign partners on a regular basis. Each engagement requires an intelligence preparation of the battlefield (IPB) or "preparation of the bilateral" to reach the intended outcome. Deliberate preparation by both the leader and staff officer, focused toward an intended outcome, provides the pathway to success. While prior preparation is vital to reach success, the post-engagement effort provides the rewards of that success by synchronizing the follow-up actions to seal the agreement or further press the effort.

In Sun-Tzu's *Art of War,* he states, "One who does not know the plans of the feudal lords cannot forge preparatory alliances. One who does not know the topography of mountains and forests, ravines and defiles, wetlands and marshes cannot maneuver the army. One who does not employ local guides will not secure advantages of terrain. One who does not know one of these four or five cannot [command] the army of a hegemony or a true king."

Sunni and Shi'a sheiks from Bassam, Aqar Qaf, Salamiyat and Fira Shia, Iraq, discuss creating volunteer neighborhood watch programs in their villages during a 16 July reconciliation meeting facilitated by 1st Battalion, 37th Field Artillery (1-37 FA). The battalion is part of the 3rd Stryker Brigade Combat Team (SBCT), 2nd Infantry Division, at Camp Taji, Iraq. (Photo by SSG Jon Cupp, 1st BCT, 1st Cavalry Division Public Affairs)

In today's operating environment, to "know the plans of the feudal lords" may be referred to as IPB. While coalition partners, local mayors and public administrators today have replaced feudal lords, the premise of solid intelligence driving operations continues to serve the Army. Reconciliation and engagement operations now are integrated fully into the IPB and serve as a trigger for directed full-spectrum operations.

Political Solution. The vehicle to reconciliation must include a political solution. In Northern Ireland, the Provisional Irish Republican Army (PIRA) was able to sustain its campaign of violence through financial aid from external players coupled with a steady flow of volunteers willing to fight for the "cause." The PIRA's "Long War" was boosted by large donations of arms from Libya in 1986 due to Gaddafi's fury at the British government for aiding the US bombing of Tripoli, which killed one of Gaddafi's children.

It was only in the latter years of this campaign that the terrorist's resources began to dwindle and, hence, a political solution became the only viable option. The other belligerents in Northern Ireland, namely the loyalist paramilitary organizations, were in a similar situation that made the efforts toward a political settlement easier for the organizations to accept.

Al Qaeda in Iraq and its affiliates in the Mujahadeen Shura Council consist of both foreigners and Iraqis motivated by an extremist Sunni-Islamist ideology, which rejects the West, attacks moderate Islam and seeks to establish an Islamic Caliphate in Iraq. Not many would argue that reconciliation would work with such factions.

The other belligerents, Sunni and Shi'a extremists—particularly rogue Jaish al-Mahdi elements—however, are interlocked in retaliatory violence and are contesting control of ethnically mixed areas to expand their areas of influence. Rogue Jaish al-Mahdi members continue a campaign of overt executions and mass kidnappings of Sunni civilians.

At the same time, Sunni extremists, in particular the 1920s Brigade, continue to respond by carrying out large scale and mass-casualty bombings of Shi'a gatherings and culturally significant sites.

The Sunni extremists have a logistical chain stretching back to Syria while Jaish al-Mahdi has a reach-back capability to Iran, so a purely militaristic approach to conflict resolution would not yield results in the short term.

So unlike Northern Ireland, the various factions still believe they have a lot to gain by continuing violence. A political option will not be viable until at least after the next election and support from the external players has ceased or at least diminished.

Timing. The timing of implementing a reconciliation policy is critical to achieving success. The belligerents in Northern Ireland realized that continuing the war was futile and the best option was to seek a political solution. Hence, the *Sinn Fein* entered negotiations with the British government. It was not long before the remaining terrorist organizations followed suit. In this example, the catalyst for reconciliation was diminishing public

support and exhaustion, both on the parts of the terrorists and the indigenous population.

The current situation in Iraq does not have similar conditions as in Northern Ireland, not yet, anyway. The Iraqi government is considered weak, and the various factions are jockeying for position to fill the power vacuum if the prime minister steps down or is overthrown. The local populace will support the organization that is capable of fulfilling their basic needs, whether it is the Iraqi government or the militia. Not until these needs are met, or offered, will the populace be ready for reconciliation.

In the political arena, the Iraqi government needs to reach out to the Sunnis and Kurds as well as the disgruntled Shi'a factions and incorporate them in the political process—or risk losing any potential support from the populace to militia.

Truces. Core grievances need to be addressed to achieve a truly long-term solution. During the Northern Ireland Peace Talks, the British government took time to address key issues from the republican and loyalist political organizations. These talks were drawn out for almost 10 years as each side raised its concerns and negotiated new terms for reconciliation. The major issues concerning both sides were political power sharing and their representation in parliamentary proceedings.

In Iraq, the issues of oil revenues, federal-regional relations and minority rights are examples of some of the potential "show stoppers" for reconciliation. The Sunni population most certainly will abstain from any form of truce until oil revenue distributions are addressed—although in return, they may well have to concede on some level of regional autonomy. A strategy of reaching out to current members of the Sunni-Arab insurgencies would be grounded in an acceptance that the insurgency is not monolithic and that political deals, truces or reductions in violence still can be achieved.

A similar approach could be applied to the other main threat to stability in Iraq—the Sadr movement led by Muqtada al-Sadr and his military wing Jaish al-Mahdi. Muqtada has substantial popular support and, therefore, political legitimacy, giving him the power to invoke a truce.

Security. One initiative to increase security in Iraq is the local recruiting of police support units that will deploy only within their local areas. In general, this concept will provide immediate and focused security and align individuals with the Iraqi government. However, the real danger is what these forces do after the defeat of the common enemy, al Qaeda.

The Ulster Defense Regiment (UDR) was a locally recruited, part-time unit of the British Army that was intended for security duties in Northern Ireland. While the UDR killed only eight people during "The Troubles" and often carried out security duties professionally, many of its members were found to have been involved with loyalist paramilitary groups and in a number of killings of Catholic nationalists. For this reason, the nationalists also viewed the UDR as a partisan force. To remove the corruptness and enhance the image of the UDR, the organization was amalgamated with the Royal Irish Rangers in 1992 to form the Royal Irish Regiment.

In Iraq, unfortunately, corruptness resides in the main stream Iraqi security forces (ISF), eliminating the option of absorbing them into a less corrupt organization.

The Long Haul. The hunger strike of 1981 by the republican prisoners in Northern Ireland had important and far-reaching consequences and proved to be one of the key turning points of The Troubles. The republican movement had achieved a huge propaganda victory over the British government and obtained a lot of international sympathy. Active and tacit support for the Irish Republican Army (IRA) increased in nationalist areas, putting pressure on the government to react.

Unfortunately for the IRA, it was facing a new British Prime Minister, Margaret Thatcher, otherwise known as the "Iron Lady," who would not bow to such tactics. She came with a new attitude—once you declare a policy, you stick to it—no "U-turns," no compromise. Amidst intense international media attention, the British government stood strong in its commitment to defeat terrorism. Faced with few alternatives, members of the political wing of the IRA started to "fast track" their political aspirations in exchange for terrorism, causing the terrorist campaign to last another 25 years. The campaign of terrorism in Iraq still is gaining momentum, and a political compromise is a mere aspiration by optimistic leaders desperate to find a "quick-fix" solution.

In counterinsurgency (COIN) warfare, the local people are the key to success. They will choose sides depending on whom they can trust or from whom they stand to gain more. If they are not convinced that the Coalition Forces are there for the long haul and prepared to see the campaign through to a peaceful settlement, then they will put their own interests before national interests. There is no faith that the current Iraqi government is capable of delivering stability without Coalition Forces support. US politicians constantly are calling for the redeployment of troops which manifests as submission at the local level. Why should locals cooperate with Coalition Forces if they are going to be left to deal with al Qaeda after a troop withdrawal?

The bottom line is that the people of Iraq must have confidence that the international community is there for the "long haul," and we will not "cut and run."

External Support. The UN was successful in stabilizing El Salvador after an exceptionally bloody civil war, in large part by involving neighboring states that were desperate to keep the conflict from spilling over El Salvador's borders onto their soil.

A family in Northern Ireland walks past British Soldiers providing security while on patrol during "The Troubles." (Photo courtesy of John Conroy and the Alicia Patterson Foundation)

In contrast, some of Iraq's neighboring countries are fueling the war and need to be stopped politically and (or) militarily. Sanctions and strategic bombings are some options available; however, these generally tend to exacerbate the situation. Political dialogue is the key to compromise.

Iraq will never reach an acceptable level of "normalcy" until the borders are controlled. Too many external organizations have a vested interest in causing chaos in Iraq and, therefore, need to be kept out. This only can be achieved through cooperation with Iraq's neighboring countries or a massive surge in troop deployments along the borders.

Northern Ireland once had a million Protestants and half a million Catholics; today, it's fast approaching a 50-50 mix. Thirty years of striving toward equal education and employment opportunities have "evened the playing field." In fact, you could argue that the biggest contributor to the peace process in recent years has been the opportunity for both communities to earn a decent living, leading to a somewhat "natural" reconciliation. After all, that's what many such struggles come down to in the end: a competition for resources. As Northern Ireland continues to reap the benefits of prosperity, memories of Ireland's troubles are becoming a thing of the past.

A similar Northern Ireland reconciliation template cannot be implemented and executed within a 90-day time frame in Iraq.

Conclusion. Currently a lot of initiatives are occurring throughout Iraq to meet the near-term goal of appeasing the US Congress. Because of the 90-day pressure, these initiatives are being implemented without a full appreciation of their long-term effect.

The short-term goal needs to be security, both for the Coalition Forces and the Iraqi people, followed by the long-term goal of reconciliation, which leads to economic growth and prosperity.

Any illusions of reconciling Sunnis and Shiites within a short time should be dismissed. The Truth and Reconciliation Committee is still ongoing in Sierra Leone six years after the end of hostilities in the region. It took 37 years for Dr. Ian Paisley, leader of the Loyalist Democratic Unionist Party, and Gerry Adams, leader of the Republican *Sinn Fein*, to reconcile. It took more than 150 years for the Australians to begin reconciling with the Aboriginal and Torres Strait peoples.

I repeat: the Coalition Forces' short-term goal should be security. Security buys time for reconciliation on different levels. First, it gives the local population confidence that the elected government can deliver peace and prosperity. Second, the government can engage the warring factions to either defeat them or negotiate a compromise. In conjunction with engaging key leaders within Iraq, the government also needs to address other external regional actors to secure the borders. Finally, security allows the local populace to experience life without the concern of terrorist activity, which is an incentive for further reconciliation.

The "itch that needs scratching" is security. What form it takes is the subject of another article. Security may involve arming militias to fight al Qaeda or reinforcing existing security forces. Either way, if security is not provided the people of Iraq, other "itches" will appear requiring an entirely new type of "ointment."

Our short-term goal to success in reconciling Iraq should be establishing security.

Endnotes:

1. Luc Huyse, et al, *Reconciliation after Violent Conflict* (Stockholm, Sweden, International Institute for Democracy and Electoral Assistance, 2003), available online at http://www.idea.int/publications/reconciliation.
2. P. Steven Heidecker, "Bilateral Negotiations: The Best Offense is…" *Army* (Arlington, VA: Association of the US Army, July 2001).

Major Jackson A. Docherty, Royal Artillery (RA), is the Commander of the 7th Commando Battery *(Sphinx)* in Arbroath, Scotland. He has been the British Liaison Officer to the Fires Center of Excellence (CoE) at Fort Sill, Oklahoma; a Targeting and Engagement Officer with Headquarters, III Corps in Iraq; and a Small Group Instructor at the Field Artillery School at Fort Sill. He also served as the Regimental Policy Staff Officer for the Director of Royal Artillery at Larkhill, England; a Gunnery Instructor at the Royal School of Artillery, also at Larkhill; an Intelligence Officer for the International Military Training and Advisory Team deployed to Sierra Leone; the G3 Operations Officer for the 3rd Infantry Brigade based in Northern Ireland for two years; Forward Observation Officer for the 4th Regiment Royal Artillery in Osnabruck, Germany; an Infantry Commander in the 45th Commando Royal Marines, with which he deployed to Northern Ireland, and a Reconnaissance Officer for the 29th Commando Regiment, Plymouth, England. He holds an MA in Management and Leadership from Webster University, St. Louis, Missouri.

FA Reset Training

The Field Artillery (FA) School, Fort Sill, Oklahoma, is offering training assistance to units returning from deployments during which they conducted non-standard missions.

Reset Mobile Training Teams (MTTs). The FA School will form a team based on unit needs and send instructors/subject matter experts (SMEs) to the unit's location.

Reachback Server. More than 1,000 hours of interactive training is available on the Fires Knowledge Network (FKN) at "FA Reachback/Refresher Training" with a single Army Knowledge Online (AKO) sign in.

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AMD COMPOSITE BATTALION:

RESET, TRAIN, READY AND DEPLOY

By Lieutenant Colonel Russell E. Bodine, ADA

Many of us who joined the Army in the last decade of the Cold War often are impressed by the extraordinary accomplishments of our young Soldiers and junior officers in today's Army. Soldiers joining the Army in time of war or proudly reenlisting after multiple tours in Iraq or Afghanistan are doing much more and at a faster pace than we ever did.

As soon as a unit returns from a deployment, it begins the process all over again in the "Reset Phase" of the Army Force Generation (ARFORGEN)-like model. This is also the phase in which the bulk of the Army's transformation takes place while the friction of the War on Terrorism (WOT) continues to loom.

This article discusses how the 5th Battalion, 52nd Air Defense Artillery (5-52 ADA), 11th ADA Brigade, Fort Bliss, Texas, is working through these challenges and began the "process of deploying" on the first day of Reset.

Fieldings and Training. In November 2006, 5-52 ADA was a Patriot Capabilities (PAC)-3 pure battalion that rotated four batteries to the Korean theater of operations and, within 30 days, had received four returning batteries. The battalion entered the Reset Phase after it was designated the ADA test battalion and directed to convert into a composite air and missile defense (AMD) battalion (two Patriot batteries and one Avenger battery) with the battalion scheduled to deploy to the Central Command (CENTCOM) theater in early 2008.

The battalion had several key tasks to accomplish within its Reset Phase. These tasks include fielding the predeployment version of Deployment Build-6 (PDB-6) software and equipment upgrades; supporting PDB-6.5 software testing; completing new equipment training (NET); standing up an Avenger battery and AMD support capabilities in the headquarters and maintenance unit; certifying ADA crews and executing gunnery; completing all Forces Command (FORSCOM) annual training requirements; and deploying to Yuma Proving Ground, Arizona, to participate in a capstone joint exercise to validate lessons learned sponsored by the Marine Air Weapons and Tactics Squadron in Yuma. Once these key tasks are accomplished, the battalion will be a well-trained AMD unit and ready for deployment.

5-52 ADA's training plan would keep any good unit busy for a year in peacetime. However, for 5-52 ADA, like all Army units in Reset, the challenges are exacerbated by the fact that the Army is supporting WOT.

Resourcing Challenges. The resource challenges of war impact resetting units on at least three important levels. First, there are some general Army-wide resource challenges that greatly affect a resetting unit's ability to train and sustain. For example, ADA units, mostly manned by Soldiers in the ADA's Career Management Field 14 (CMF 14) Military Occupational Specialties (MOS), require support from repairmen in CMF 94 and generator

Two Soldiers from A Battery, 5th Battalion, 52nd Air Defense Artillery (A/5-52 ADA), uncover the Patriot Main Array Radar during crew drill training.

mechanics in CMF 63 to maintain their equipment in a mission-capable status. Soldiers in these low-density MOS are in high demand and are assigned Armywide based on deployment fielding categories.

This friction also gives rise to equipment shortages for high-demand items, such as .50 cal machine guns that have been pulled from resetting units to support the training of deploying Soldiers and units.

Second, as deployed and deploying units are a higher priority for resources, there is friction generated by the requirement of a unit in Reset to sustain like units. Specifically for 5-52 ADA, this means supporting the deploying or already deployed Patriot units by providing crews, individual experts and trainers, as required. In return, there is a migration of non-deployable Soldiers to a battalion in Reset from those units preparing to deploy.

And third, requirements to sustain the community within which resetting units operate also generate friction. Like all units in Reset across all Army's installations, 5-52 ADA inherits a portion of its deployed sister battalions' details, such as Fort Bliss Red Cycle taskings. These include tasks such as supporting the NCO Academy or meeting the branch's testing requirements. Some additional details are intense because we are at war, details such as casualty notification and assistance. 5-52 ADA also provides limited administrative functions to support a separate transportation company and a signal company and serves as the rear detachment for the 4th Squadron, 1st Cavalry (4-1 Cav) and a sister Patriot battalion.

Accomplishing these taskings and meeting resourcing challenges while simultaneously building combat power is a resetting unit's temporary "lot in life." But during Reset, it is essential that a unit start preparing for deployment *immediately*.

Meeting the Challenges. The 5-52 ADA's first order of business was to reconstruct its ADA crews with new personnel. There was a temptation to keep some experienced crews together so the unit status report looked somewhat acceptable in the short term. But the Soldiers and officers on those crews were the easiest to certify and most often were the ones with the least longevity in the unit.

From the start of Reset, the battalion received 25 percent fewer Soldiers back from Korea than it deployed, many within months of ending their terms of service. This shortage was compounded by the fact that most of the returning lieutenants on the ADA crews would soon make captain and attend their career courses. It was important to focus the limited time and training resources to assemble, train, and certify crews that have Soldiers and officers with the most longevity—in this case, the youngest and most inexperienced.

At the same time, we manned four Patriot batteries in a sequential priority from A Battery through D Battery. The Soldiers with the most longevity were weighted towards A Battery, with experience being used as the secondary criterion, (18-months longevity was most important, followed closely by experience). However, even in A Battery, no crew remained intact from Korea.

D Battery's crews were initially incomplete and had the greatest concentration of Soldiers and officers assigned directly from initial military training. As new officers and Soldiers right out of the officer basic course (OBC) or advanced individual training (AIT) began to report in the months following the Korean rotation, those Soldiers filled the remaining crews in the lower priority batteries.

Manning the batteries in this manner allowed 5-52 ADA to use training resources on one battery at a time. For the most part, A Battery was exempt from post Red Cycle tasks for the first several weeks and provided the resources necessary for the battalion to certify crews and complete gunnery.

In contrast, D Battery initially supported daily funeral details, as many as 61 funerals in the first month of Red Cycle. D Battery was also responsible for running more than its "fair share" of battalion weapons qualification ranges.

As crews qualified, 5-52 ADA lifted and shifted resources sequentially through the Patriot batteries. The battalion's strategy paid immediate dividends as the battalion was able to complete individual weapons qualifications and certify its launcher crews and a few of its fire control crews before all the Patriot equipment was dedicated to the PDB-6 upgrades that began in April.

5-52 ADA completed PDB-6 fielding in June. The battalion's enhanced capabilities improve its command and control and effectiveness in the "joint kill chain" in which it will operate. These capabilities include enhanced line-of-sight and beyond-line-of-sight communications, more robust friendly protect functions and reduced spurious signals.

With some of its equipment unavailable during this fielding, 5-52 ADA continued to pursue ADA crew training requirements by volunteering to test a new Patriot Fire Control simulator. This contributed to the unit's ability to certify additional crews immediately upon

receiving their equipment and completing NET. By late June, A Battery had 100 percent of its crews certified and the remaining 5-52 ADA batteries had all of their launchers and at least their primary fire control crews certified. The battalion will certify many of its remaining fire control crews in August with all crews certified by October.

Instead of watching qualified crews break apart in the summer as Soldiers leave the service and lieutenants are promoted and sent-off to their follow-on career courses, every crew that 5-52 ADA certifies is expected to remain in the unit until its deployment. Obviously, crews will need to recertify every six months until the deployment, but recertification just before deploying will be far easier than building new crews. The mission readiness exercise (MRE) should be easy with crews having completed gunnery multiple times.

This expectation would not have been possible had the battalion been overly concerned about an anemic unit status report for the first six months of Reset. This is how ARFORGEN is intended to work.

As the Patriot batteries set out to grow their combat power, the battalion simultaneously began executing its transformation. In November 2006, 5-52 ADA began not only resetting its Patriot units, but also transforming into an AMD battalion. A new Avenger battery stood up the same week all Patriot battery commanders assumed command.

A less obvious change was the growth in the maintenance company and headquarters battery that will support commanding and controlling the additional capabilities. Even this process is different than what many Soldiers of previous decades experienced. In the 1990s when ADA fielded Avengers to divisional ADA units, the respective project managers "packaged" new systems with all the support equipment for delivery to the units. The equipment was laid-out for the purpose of inventory. At one time, all in the chain of command—from the commander down to the user—inventoried and signed for equipment in the presence of a project manager, establishing an accurate and unquestionable chain of custody, a hand receipt holder's "dream."

This is not the case with the stand-up of 5-52 ADA's Avenger battery. Equipment continues arriving from all over the Army, and the Soldiers report in small batches. The Avenger systems were the first to arrive. But having been moved from one post to another, basic issue items were not included in the shipment, either from loss or incomplete shipping. Some items have trickled into the battery, such as individual weapons. The battery still does not know when other items, such as trucks, will arrive because the battalion is in Reset Phase and a low-priority fill among Army units.

The battery also must procure common table of allowance items not fielded with the Avengers, such as arms racks, holsters and command posts. And because the arrival of Soldiers to the unit was not synchronized with the arrival of equipment, more time was required initially to complete inventories and hand receipt procedures as property passed through more individuals before settling in the hands of the end user.

Despite the challenges, the battalion's battery commanders and other leaders adapt and "attack" missions and training requirements based on the people and equipment on hand. When weapons systems arrive at the Avenger battery, Soldiers begin qualifying on them. When vehicles arrive, Soldiers perform technical inspections and order the required parts.

The Soldiers continually adjust as their situation evolves. For example, the NET for the Forward Area Air Defense (FAAD) was postponed from May until November. This was because the key communications equipment, the battalion's fire coordination center, and 50 percent of its MOS 14J (ADA Command, Control, Communications, Computers and Intelligence [C^4I] Enhanced Operators/Maintainers) would not be present until fall.

The battalion's maintenance company and headquarters battery Soldiers have the greatest dwell time and endure the brunt of the Soldier migration to brigade combat teams (BCTs) and directly to theater. For these units, the battalion takes special measures. Soldiers from line units trained to operate Patriot launchers temporarily serve on field maintenance teams. Officers and senior NCOs seamlessly "play musical chairs" with additional duties as officers are assigned external missions.

5-52 ADA is on track for a successful rotation to weapons training instruction (WTI) at Yuma Proving Ground and subsequent PDB-6.5 software testing at the end of the year.

5-52 ADA will be prepared to deploy and fight not only because its Soldiers will be trained fully to employ the latest generation of AMD technology, but also because our Soldiers are flexible enough to handle anything our enemies can throw at them. Young leaders accomplish ever-changing missions in a far less predictable environment, plugging along with equipment and personnel shortages as necessary. They are a living testament to our collective assertion that "This Army will bend, but *never* break."

Lieutenant Colonel Russell E. Bodine, Air Defense Artillery (ADA), is the Commander of the 5th Battalion, 52nd ADA (5-52 ADA), 11th ADA Brigade, at Fort Bliss, Texas. In his previous position he was the Speechwriter for the Vice Chief of Staff of the Army at the Pentagon. During Operation Iraqi Freedom (OIF) I, he served as the Operations Officer for Task Force Iron Fist as part of the 32nd Air and Missile Defense Command. He commanded C Battery, 3-4 ADA, 82nd Airborne Division, at Fort Bragg, North Carolina. He holds two master's degrees, including a Master in National Security and Strategic Studies from the Naval War College in Newport, Rhode Island.

SPCs Eric Long (left) and Kevin Albers (center) with SGT Michael P. Bishop, all of A/5-52 ADA, set up the Patriot antenna mast group (AMG) during crew drill training.

Fires Center of Excellence in 2011

By James H. Wollman and Lieutenant Colonel (Retired) David S. Henderson, FA

Congress established the Base Realignment and Closure (BRAC) Commission to create cost-effective and efficient improvements to military installations. In September 2005, the BRAC Commission's final report recommended realigning the Air Defense Artillery (ADA) School at Fort Bliss, Texas, with the Field Artillery (FA) School in the Fires Center of Excellence (CoE) at Fort Sill, Oklahoma. The Army is implementing that recommendation with the ADA projected to close on Fort Sill not later than 2011.

With this move, the FA and ADA Schools will collocate and consolidate some functions, gaining efficiencies while maintaining the quality personnel development, training, standardization and systems development both schools are known for. Simultaneously, the Army will be able to reduce the number of military occupational specialty (MOS) training locations and support Army transformation by collocating institutional training. There are no plans to merge the two branches.

Along with moving the ADA School, the BRAC Commission recommended relocating ADA units to Fort Sill and relocating the 1st Armored Division and various echelons-above-division units from Germany and Korea to Fort Bliss. The 212th FA Brigade at Fort Sill inactivated and will reactivate as the 212th Fires Brigade at Fort Bliss. Also, Fort Sill's 17th Fires Brigade relocated to Fort Lewis, Washington. The 6th ADA Brigade, which is in the ADA School, and the 31st ADA Brigade, a Forces Command (FORSCOM) unit, are moving to Fort Sill.

Fires CoE Plan. Leaders from Forts Sill and Bliss developed a concept plan in 2005 to collocate the two schools, which, for the most part, is reflected in the 2007 command-centric design in Figure 1. The design merges some functions and organizations within the schools to meet the manpower savings required by BRAC or other Army agencies; however, branch-specific functions will remain separate.

The design creates a center-level staff of G1, G2, G3, G4, G6/Command Information Officer (CIO)/Knowledge Management (KM), G8, Strategic Communications (STRATCOM) and Quality Assurance Office (QAO). It also consolidates the branches' combat development functions under one organization, called the Capabilities Development and Integration Directorate (CDID), including the respective Training and Doctrine Command (TRADOC) capabilities managers (TCMs). This organization integrates the development of capabilities horizontally, vertically, across and within the FA and ADA.

The design brings the training and doctrine development functions of both FA and ADA into one organization: the Directorate of Training and Doctrine (DOTD). The new Directorate of Training Support (DOTS) will oversee FA and ADA common training support and other functions.

A key principle of the plan is to maintain both the FA and ADA Schools as

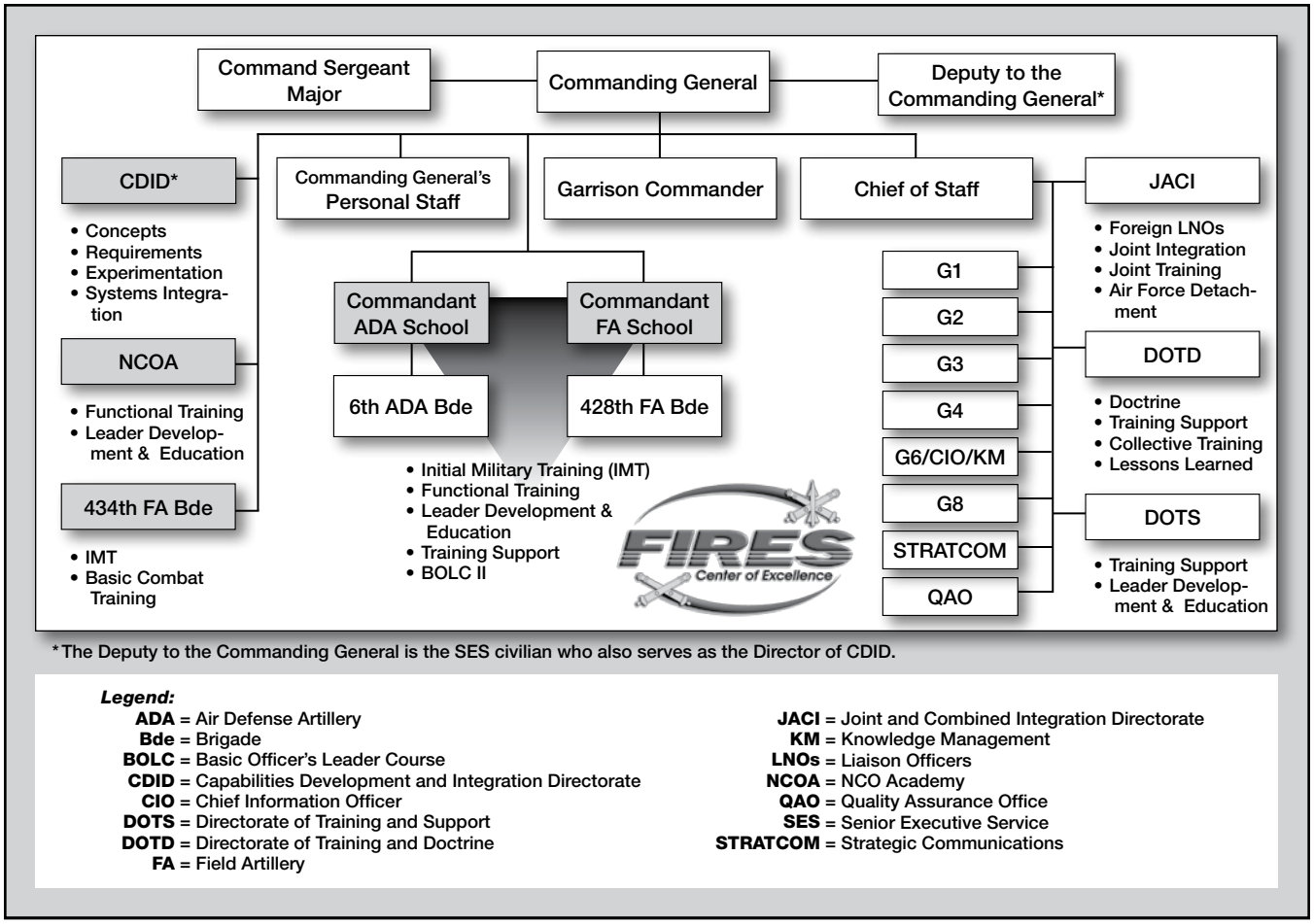


Figure 1: 2011 Fires Center of Excellence (CoE) Model, Fort Sill, Oklahoma

separate entities and retain an Army training center on Fort Sill to provide Soldiers their initial military training in basic combat skills.

One of the first official steps in creating the Fires CoE was the creation of the Virtual Fires CoE on 1 June 2006 with combined functions developed and coordinated online. This included creating the Fires CoE on the Fires Knowledge Network (FKN) website that is maintained on Army Knowledge Online (AKO).

Another manifestation of the merging of the ADA and FA Schools was combining the two branch professional bulletins into one: this *Fires* Bulletin. *Fires* is developed electronically in a collaborative effort between the FA and ADA magazine staffs at Forts Sill and Bliss. The first *Fires* was published as the May-June edition. The magazine is assigned to Fort Sill's Office of the Chief of Staff.

The FA and ADA Schools each will have a brigade: the 428th FA Brigade and the 6th ADA Brigade, respectively. The 428th FA Brigade will be responsible for all FA advanced individual training (AIT) courses, FA warrant officer (WO) courses, the FA Basic Officer Leader's Course (BOLC) III and the FA Captain's Career Course (FACCC). The 6th ADA Brigade will be responsible for the ADA AIT courses and the ADA WO basic courses. The ADA Leadership and Education Directorate (LED) under the ADA Commandant will be responsible for the ADA WO Intermediate Course, a combined WO and officer career course, ADA BOLC III and several functional courses. Each school will have a brigadier general who serves as the school commandant and proponent for his branch-specific functions.

The 434th Field Artillery Brigade, the Army Training Center on Fort Sill, will continue to conduct all basic combat training.

The Army BOLC II instruction, recently established at Fort Sill and cur-

New Construction for the Fires CoE Campus

On 27 August, dignitaries from the Field Artillery (FA), Air Defense Artillery (ADA) and other agencies participated in a ground-breaking ceremony for the new ADA Advanced Individual Training (AIT) facilities on the Fires Center of Excellence (CoE) campus at Fort Sill. The AIT facilities will be just off of Fort Sill Boulevard across from the airfield.

This is Phase I of $218 million in new construction and renovations for the campus, $138 million of which was funded in FY07. The rest of the funding will follow in FY08.

The photograph to the left shows the dignitaries in the ground-breaking ceremony. From left to right: COL(P) Rich Longo, the new FA Assistant Commandant (AC); COL Heidi Brown, ADA AC; COL Anthony Funkhouser, Commander of the Tulsa District of the Corps of Engineers; Randy Butler, Director of the Fires CoE Public Works; Kirby Brown, the new Senior Executive Service (SES) Deputy to the Commanding General; CSM William High, FA CSM; MG David Ralston, Chief of FA and Commanding General; John Purcell, Mayor of Lawton, Oklahoma; and COL Robert Bridgford, Fires CoE Garrison Commander. (Photo by Jerry Bryza, Jr., *Fires* Art Director)

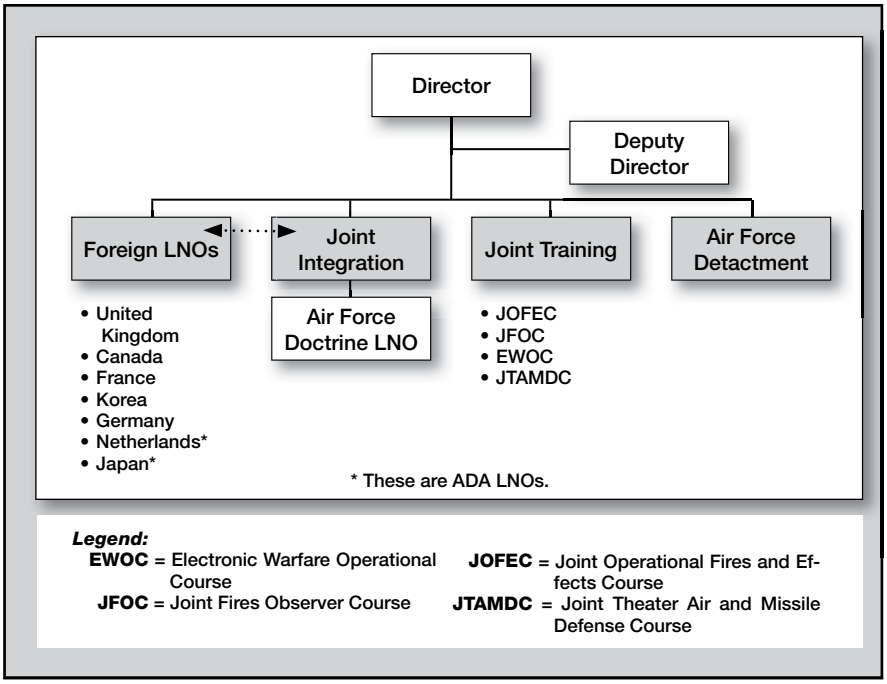


Figure 2: Joint and Combined Integration Directorate (JACI)

rently under the 428th FA Brigade, will transfer to the 6th ADA Brigade when the brigade closes on Fort Sill.

The headquarters and proponent offices for the two schools will be housed in Snow Hall, which also will become the home of both the FA and ADA CCCs and the majority of the two branches' BOLC III instruction. The new Fires CoE center-level directorates (CDID, DOTD and DOTS) will be located in Knox Hall after renovations are complete. This will add valuable synergy to large organizations currently housed in multiple locations on Fort Sill.

The FA and ADA NCO Academies (NCOAs) will consolidate into one center-level academy. The two branches in the combined NCOA will share common support and administrative functions and teach a consolidated Warrior Leaders Course (WLC) while each continues to teach branch-specific NCO courses.

A Closer Look at Selected New Organizations. Because of their uniqueness or their consolidation of ADA and FA functions, four organizations call for a closer look.

Joint and Combined Integration Directorate (JACI). A one-of-a-kind, JACI will remain in Snow Hall. It will teach joint courses, as shown in Figure 2, and work joint fires issues on behalf of the Fires CoE, which is the Army's CoE for Joint Fires. JACI currently works closely with the personnel of the Air Force Detachment on Fort Sill to provide joint fires instruction and oversees all foreign liaison officers (LNOs). By 2011, these will include LNOs from Japan and the Netherlands who now are assigned to Fort Bliss.

DOTS. This new directorate, as shown in Figure 3, will provide direct support for training in both schools and be responsible for scheduling and managing training, executing leadership training, overseeing the blended ADA and FA technical library and the FA and ADA museums, training instructors and supporting international students.

The FA museum broke ground recently for new construction on Fort Sill south of the Historic Landmark Museum (Old Post). TRADOC is projecting the ADA museum will break ground adjacent to the FA museum in about 2010.

DOTD. With its organization shown in Figure 4, DOTD is responsible for all training requirements, doctrine, lessons learned, course curricula and doctrine development, and tactics training during the fielding of new equipment. FA and ADA personnel in DOTD execute their respective branch-specific training and doctrine responsibilities.

CDID. This directorate will replace the current Futures Development and Integration Center (FDIC) at Fort Sill and the ADA Combat Developments Directorate (DCD) at Fort Bliss, a portion of which already has moved to Fort Sill. CDID's organizational chart is shown in Figure 5 on Page 20. The Director of CDID is a Senior Executive Service (SES) civilian who also serves as the Deputy to the Command-

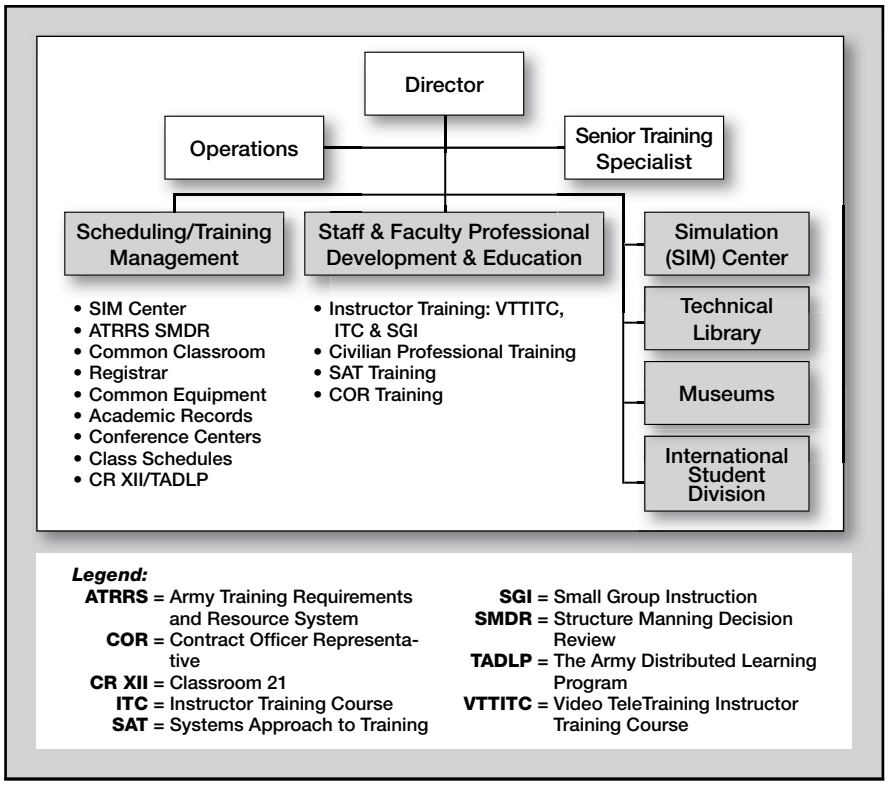


Figure 3: Directorate of Training Support (DOTS)

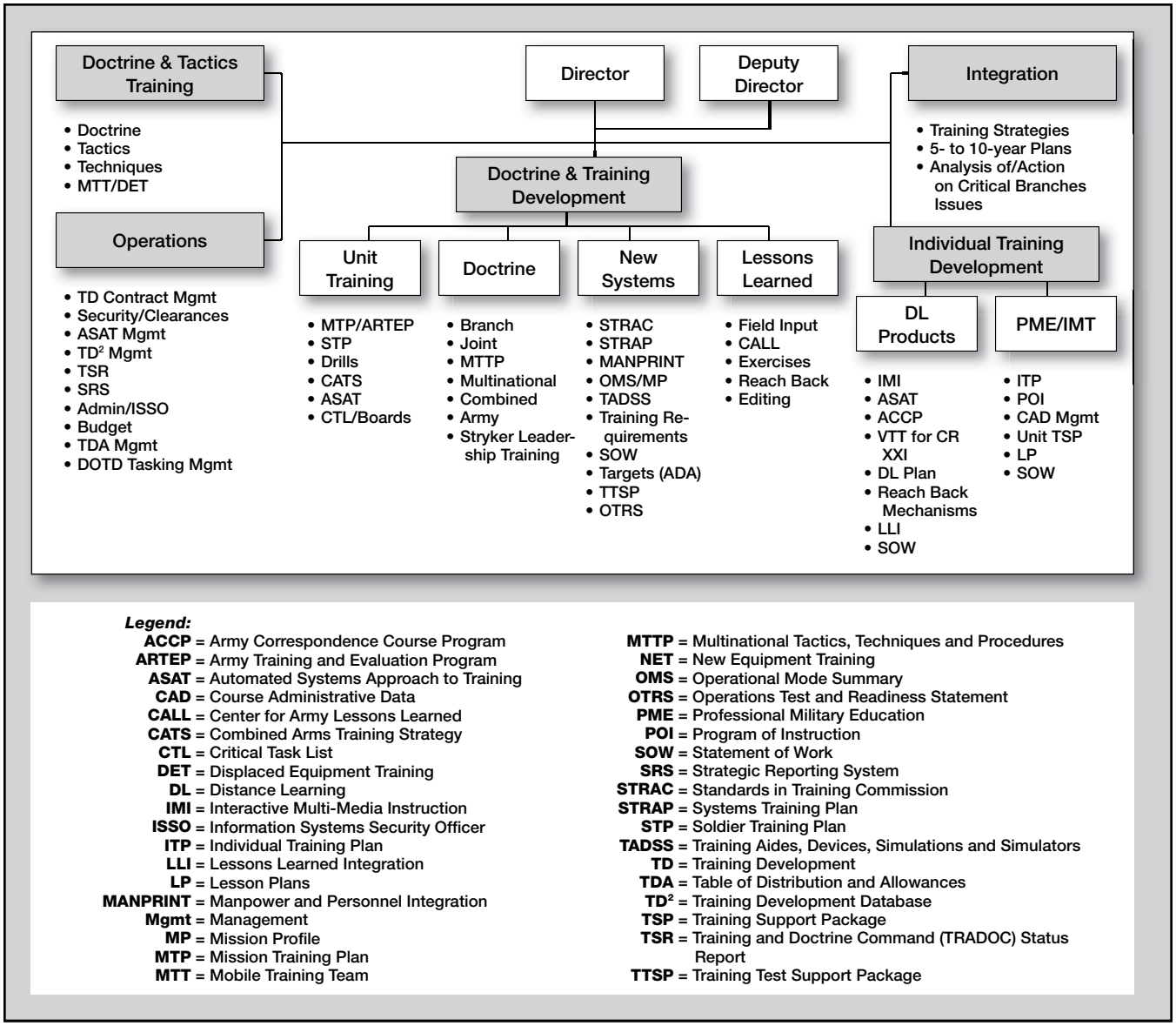


Figure 4: Directorate of Training and Doctrine (DOTD)

ing General.

CDID's primary mission will be to develop CoE-related concepts and requirements and conduct experiments to validate doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF)-integrated combined arms capabilities that complement joint, interagency and multinational capabilities. FA and ADA staff officers and TCMs will continue to provide expertise when required for branch-specific projects.

Housing the ADA. The new Fires CoE "campus" on Fort Sill will consist of $218 million in new military construction and renovations. New construction and facilities renovations are projected to be completed and ADA School instruction initiated by the end of 2009. The Fires CoE should be fully operational not later than 2011 with all BRAC-affected ADA units and organizations operating on Fort Sill.

Under BRAC, FORSCOM is stationing the 31st ADA Brigade at Fort Sill. The brigade is comprised of three battalions: two Patriot pure battalions and one composite battalion (one Avenger battery and four Patriot batteries).

The 6th Battalion, 52nd ADA (6-52 ADA), the first battalion from this brigade, arrived at Fort Sill from Germany in June 2006. The other two battalions have not been determined. Two of the battalions will reside at Fort Sill, and one will be in a rotational status. The 31st ADA Brigade will be located just west of the current National Guard facility on South Boundary Road.

The collocation of the branch schools at Fort Sill will establish an environment that continues the FA's and ADA's long history of excellence. The new Fires CoE will be an institution that fosters consistency, standardization and training proficiencies; supports Army modularity, transformation and the any war in which the nation is engaged; and allows the Army to gain efficiencies by consolidating training locations.

While consolidating some functions yet remaining separate branches, the FA and ADA Schools will continue to serve the Army by producing the highest quality Soldiers, Marines and leaders for the operational force, developing critical future concepts and material, and maturing joint fires and effects for the entire spectrum of conflict.

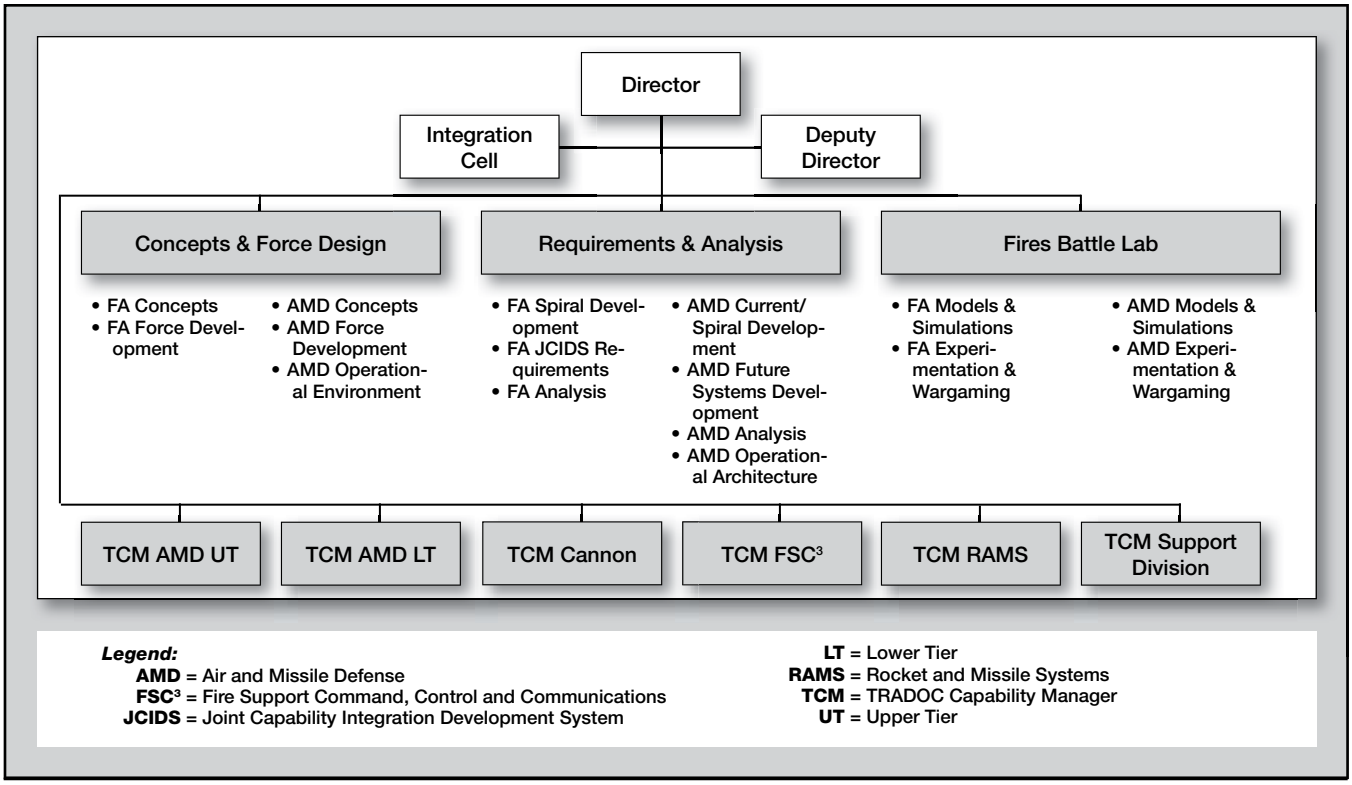


Figure 5: Capabilities and Development Integration Directorate (CDID)

James H. Wollman is the Field Artillery (FA) Planner in the Directorate of Training and Doctrine (DOTD) Fires Integration Cell at Fort Sill, Oklahoma. The cell coordinates the Air Defense Artillery (ADA) School's move from Fort Bliss, Texas, to Fort Sill. His previous job was as the Assistant S3 of the 1st Armored Division Artillery (Div Arty) in Germany. He also served as the 1st Armored Div Arty Liaison Officer during Operation Iraqi Freedom (OIF) I and was extended in theater into OIF II. He holds a MA in Database Management from Webster University, St. Louis, Missouri.

Lieutenant Colonel (Retired) David S. Henderson, Field Artillery, is the Deputy Director of DOTD in the FA School at Fort Sill. He also served as the Deputy Director of the Gunnery Department in the FA School. While on active duty, he commanded 1st Battalion, 17th Field Artillery (1-17 FA), 75th FA Brigade, III Corps Artillery, and later served as the Chief of Staff of III Corps Artillery at Fort Sill. He was the Executive Officer for 4-82 FA, part of the 3rd Armored Division, deploying to the Gulf for Operations Desert Shield and Storm. He commanded B/3-34 FA, part of the 9th Infantry Division, at Fort Lewis, Washington.

35th ADA Brigade Sharpens Skills During RSOI 2007

During the Reception, Staging, Onward Movement and Integration (RSOI) 2007 Command Post Exercise (CPX) at Osan Air Base, Korea, Soldiers of the 35th Air Defense Artillery (ADA) Brigade and 94th Army Air and Missile Defense Command (AAMDC) honed their warfighting skills and increased their units' readiness and interoperability. They practiced the joint and combined integration of theater air and missile defense (TAMD) with both US and Korean Air Forces. The purpose of the CPX was to exercise, evaluate and improve crisis action measures and procedures for the combined fight.

Additionally, the exercise gave the 35th ADA Brigade, headquartered at Osan, an opportunity to exercise its planning and execution processes with the 94th AAMDC.

The 94th AAMDC is headquartered at Fort Shafter, Hawaii. It provides command and control for Army ADA units in the Pacific Command (PACOM) theatre of operations. It also helps to plan TAMD.

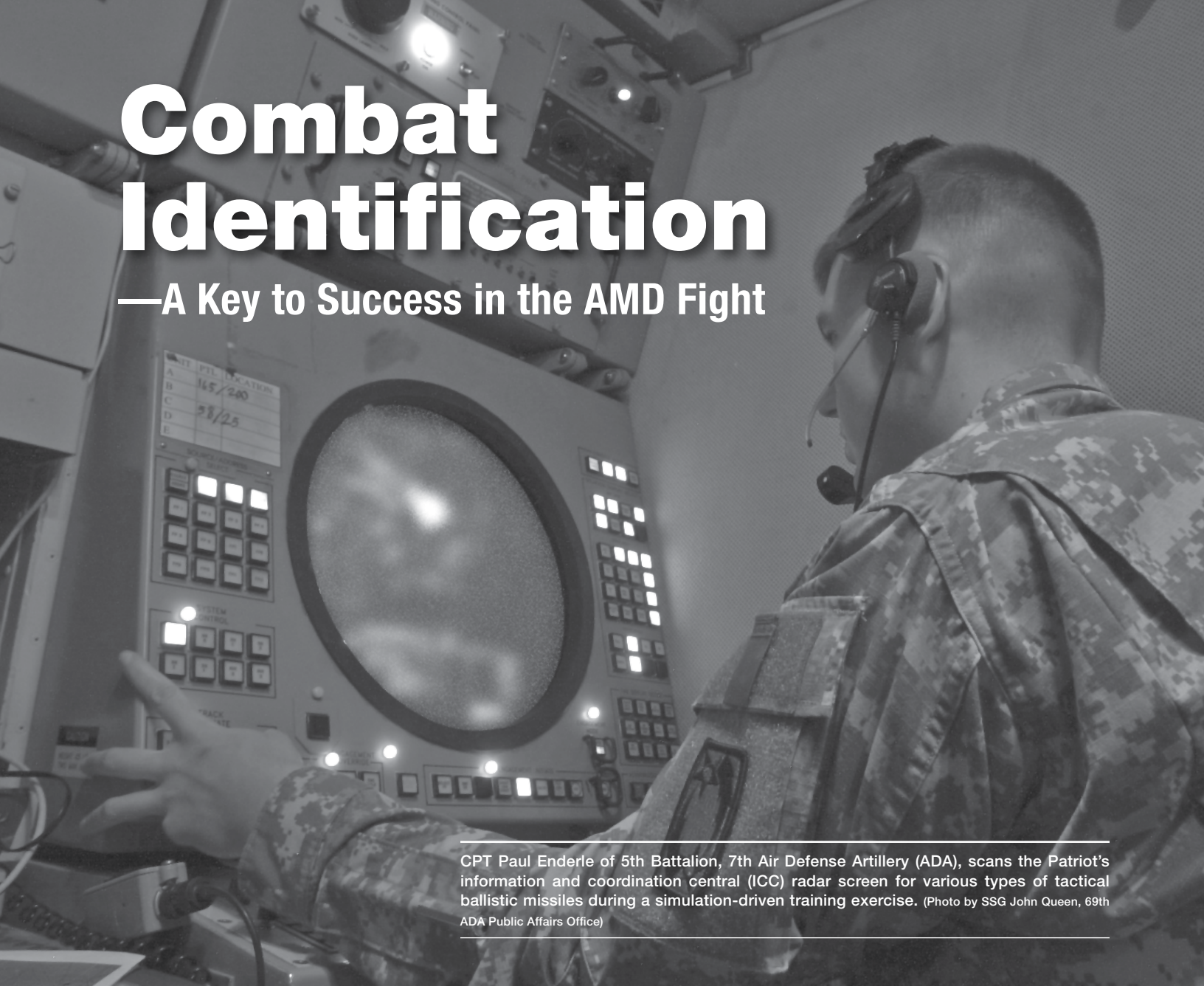
In addition to the CPX, the 35th ADA Brigade used the first week of RSOI for a brigade-level field training exercise (FTX). The FTX allowed all of the brigade's 14 units to train in convoy movement procedures as well as concentrate on weapons training and basic warrior skills.

CPT David C. Marlow, ADA
35th ADA Brigade PAO, Osan Air Base, Korea

Soldiers in the 35th ADA Brigade carry a rolled up camouflage net to storage after an FTX. The FTX was held in conjunction with the RSOI CPX in March. (Photo by PFC Gretchen N. Goodrich, 35th ADA Brigade PAO)

Combat Identification

—A Key to Success in the AMD Fight



CPT Paul Enderle of 5th Battalion, 7th Air Defense Artillery (ADA), scans the Patriot's information and coordination central (ICC) radar screen for various types of tactical ballistic missiles during a simulation-driven training exercise. (Photo by SSG John Queen, 69th ADA Public Affairs Office)

By Lieutenant Colonel (Retired) Casey E. Bain, ADA

Accurate and timely combat identification (CID) always has been an important component on the battlefield. However, today it has become an even more crucial requirement with the accuracy, range and lethality of modern weapons systems.

This article examines the importance of CID from a surface-to-air perspective based on lessons learned during Operation Iraqi Freedom (OIF). The goal is to reinforce the importance of CID in today's war fight and explain why CID is not "good enough" unless it meets positive identification (PID) criteria.

During the early phases of OIF, we experienced two surface-to-air friendly fire incidents resulting in two friendly warplanes (British Royal Air Force Tornado and US Navy F/A-18 Hornet) being shot down by US Army Air Defense Artillery (ADA) (Patriot) units. Of course, many issues were involved that led up to the unfortunate engagement and eventual destruction of these two aircraft.

Although these incidents occurred at different times and places on the battlefield and involved two different types of aircraft and two different Patriot units, they did share one thing in common that potentially could have prevented these incidents: the Patriot missile system lacked a PID capability. Specifically, Patriot needs a non-cooperative PID system or capability to help Air Defense units make split-second, accurate decisions during the stress of war.

At "first blush," the PID makes sense and appears to be a fairly simple concept. However, PID is, indeed, very complex.

PID. *Joint Publication (JP) 3-01, Joint Doctrine for Countering Air and Missile Threats* defines PID as "a high-confidence identification derived from visual observation, radar observation of point of origin (POO) and (or) electronic identification systems."

Visual observation is a difficult task, one that takes time and training. The major limitation of visual identification is that our weapons systems have advanced to ranges that far exceed the human eye's capabilities. Some weapons systems can perform visual observations—Airborne Warning and Control System (AWACS) and Rivet Joint.

Radar observation of a POO is a difficult task, even by our most sophisticated intelligence, surveillance and

reconnaissance (ISR) platforms. If not done correctly, a misidentification can lead to fratricide, as evidenced in previous conflicts.

The remainder of this discussion centers on the various techniques of electronic identification systems, to include non-cooperative PID and cooperative methods of both onboard and off board systems for the shooter.

Non-Cooperative Identification (PID). Non-cooperative electronic PID systems are defined by JP 3-01 as "technology-based identification systems that exploit the physical or electronic characteristics of a target—for example, non-cooperative target recognition (NCTR), signal intelligence (SIGINT) and electronic support measures (ESM)."

Non-cooperative technology-based electronic identification systems can locate and identify hostile as well as friendly airborne, land and surface targets. Non-cooperative PID systems can be active or passive, but the key to their accuracy and effectiveness is they rely on little to no cooperation by the target to complete the identification process, a significant advantage in today's ever-changing and challenging operational environment.

Cooperative Identification (Not PID). Cooperative identification systems are sometimes referred to as "reply and response" systems that send an active signal to the target and then wait for a response. An example is the Mark XII Identification, Friend or Foe (IFF) system. This includes the selective identification feature (SIF) with Modes 1, 2, 3 and 4 (secure mode).

Cooperative identification systems are technology-based and require the target to cooperate to complete the identification process. In this instance, friendly vehicles must have the correct equipment installed, properly maintained, turned on and keyed to avoid being identified as a valid target by a cooperative identification system.

Although the system is called IFF, it really does not identify "foes." A non-response of a target to a cooperative identification system's active signal does not necessarily imply the target is a foe because the friendly vehicle targeted simply may not be "cooperating."

Procedural Identification (Not PID). Procedural identification is a method that relies on a combination of previously agreed upon airspace control measures (ACMs). It separates airspace users by geography, altitude and time. Procedural identification can be advantageous for some missions and scenarios, normally in limited airspace areas.

Procedural identification is an extremely cooperative identification method—that is, the target must know, understand and be capable of following the agreed-upon procedures to be identified as "friendly." For example using procedural identification, a friendly aircraft not following the proper flight path for mechanical reasons could be identified erroneously as an unknown target. Potentially, the aircraft could be fired upon in accordance with established rules of engagement (ROE) or self-defense criteria—even though it was never positively identified as hostile. Procedural identification complicates the identification and engagement decision-making process.

As stated in JP 3-01, "Positive identification of tracks is normally the preferred method of operation. [Tracks are objects in the battlespace that appear on a Patriot radar that require the operator or system to identify them.] In the absence of positive identification, procedural identification is used, which employs previously established and promulgated airspace control measures. Generally, some combination of positive and procedural identification will be used. When available, positive identification is used because it provides the most rapid, reliable and transferable means of identification."

Important Findings. Current CID systems that are located off-board "the shooter" are not accurate or reliable enough. They cannot identify and (or) supply the counterair shooter with the information on objects in the operational environment that allows the shooter to employ weapons in a timely manner and with confidence the object is a foe.

The Joint Fires Integration and Interoperability Team (JFIIT) at Eglin Air Force Base, Florida, (formerly known as the Joint Combat Identification and Evaluation Team, or JCIET) defines this as the "identification gap." The consequence of the identification gap is it forces ground shooters into self-defense situations, and forces airborne platforms to perform defensive maneuvers and provide ground shooters visual identification. All of these moves increase the potential of fratricide due to a lack of PID.

JFIIT's results show that weapons systems with onboard non-cooperative PID capabilities can fill the identification gap. These PID can improve combat effectiveness against hostile forces significantly and reduce the risk of "friendly fire."

In addition, shooters with a PID are less likely to engage in a self-defense role. This is very important because many shooters rapidly engage targets in self-defense without PID, increasing the potential for fratricide.

These findings are the result of many JFIIT exercises and studies on the topic.

Until technology supports our warfighters with off-board high-confidence PID, every shooter should be able to identify targets positively using a "combination" of onboard cooperative and non-cooperative technologies. At the shooter level, this would help optimize his employing weapons within the integrated Air Defense system (IADS).

This article has focused on the CID for surface-to-air weapons and the importance of PID's preventing fratricide. However, the concept applies to all warfighters and systems, regardless of their type or location on the joint battlefield. PID would not only minimize friendly fire incidents, especially on an asymmetrical battlefield, but also improve the defense of friendly forces, enhance offensive operations and increase overall combat effectiveness.

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A Battalion Commander's **Reflections on OIF** Pre-Deployment Training

By Lieutenant Colonel Kevin W. Milton, FA

The *Tomahawk Battalion*, 4th Battalion, 320th Field Artillery (4-320 FA), Fort Campbell, Kentucky, recently completed a one-year deployment with the 506th Regimental Combat Team (RCT) or *Currahee* team, both in the 101st Airborne Division (Air Assault). The *Tomahawks* and *Currahee* team were part of MultiNational Division–Baghdad (MND-B) supporting Operation Iraqi Freedom (OIF) 05-07.

During this tour, the *Tomahawks* operated as a maneuver battalion owning non-contiguous battlespace surrounding our forward operating base (FOB) and in the lower Karrada district of Baghdad. Additionally, the *Tomahawks* were responsible for our FOB, providing force protection (including for the quick-reaction force or QRF), fielding and logistically supporting a military transition team (MiTT) that was under the operational control (OPCON) of the RCT and providing "hot-gun" support for the RCT.

The *Tomahawks* and our *Currahee* team are life-cycle managed units that were activated in September 2004. When activated, we knew we were deploying in support of OIF in November 2005. We began training the same as any other FA battalion would have, with section certifications, and made the decision to progress no further than FA Table XII live fires.

The Imperatives. We began training in December 2004 with the concept of training platoons to be lethal. The main focus was gunnery with a mixture of maneuver-focused training between certifications and artillery live fires.

Physical Fitness. Physical training (PT) is the basic building block for all training. It is guaranteed, dedicated daily training that improves Soldiers' fitness and simultaneously builds teams and trains junior NCOs to lead. Like all 101st Airborne *Screaming Eagles*, the *Tomahawks* conducted rigorous PT daily from 0630 to 0800. The *Tomahawks* adhered to the guidelines listed in the figure on page 24 to plan and execute this training.

Combatives. Our combatives training started off very basic but matured as we gained certified instructors. The *Currahee* team allowed us to train our trainers by having them attend first a level -one course and eventually training three NCOs as level-three instructors. Most units, including our forward support company, G/801st Brigade Support Battalion (BSB), conducted this training during PT hours but, occasionally, during the duty day.

Because we only had three level-three instructors, our units had to coordinate with each other to share instructors—building teamwork at the first sergeant level. Most units also conducted a two-week combatives training course to certify a large number of Soldiers as Level-One Combatives. Nothing turns a Soldier into a warrior like routine combatives training.

Marksmanship. Soldiers love to shoot and blow things up. We fired our

- Conduct PT with Soldiers *and* leaders.
- Conduct PT outside (mentally toughens Soldiers).
- Plan and execute PT using the 8-Step Training Model:
  1. Plan the training.
  2. Training and certify leaders.
  3. Reconnoiter the training site.
  4. Issue the plan.
  5. Rehearse and conduct pre-execution checks.
  6. Execute the training.
  7. Conduct and after-action review (AAR).
  8. Re-train to standard.
- Conduct at least one session of combat-focused PT weekly (road marches, guerilla drills, grass drills, litter carries, etc.).
- Conduct a minimum of one hour of combatives training weekly (not required to be conducted during PT hours).
- Conduct a battery- or company-level run on the last duty day of every week (the ultimate team-building event).

The *Tomahawks* Physical Training (PT) Guidelines

weapons at every opportunity. Qualifications were conducted on every weapon system, including shotguns, M14 rifles, grenades, M136 AT4 4-mm anti-armor weapons and claymores—in addition to our normal arsenal of M4 rifles, M9 pistols, M249 squad automatic weapons (SAWs), M240B 7.62-mm machine guns and M2 .50-caliber machine guns.

As in all training, the key is to have trainers who know what they are doing. We appointed small arms master gunners at the battery or company level as trainers and gave the battalion master gunner this responsibility as well. These NCOs became our marksmanship experts. To ensure all of our marksmanship training events were conducted to standard, the officer-in-charge (OIC) had to back brief me after every event.

From the beginning, we incorporated reflexive firing and stress shooting into our training program. Reflexive firing teaches basic motor skills, trigger finger awareness, mechanical safety fundamentals and muzzle control. Stress shooting (firing from multiple positions while out of breath) teaches Soldiers how to control breathing and accurately engage targets from multiple positions.

Combat Lifesaver Training. Our regimental commander set a goal to qualify 90 percent of our Soldiers as combat lifesavers before deploying. The *Tomahawks* exceeded this goal, thanks to the medical platoon's hard work and the battalion leadership's emphasis. Every Soldier must be able to provide life-saving medical treatment at the point of injury—this was necessary many times during our deployment, and combat-lifesaver-trained Soldiers saved countless lives.

Key Training Events. As I reflect on our pre-deployment training, three key events made the difference for us. The first was our convoy live-fire training; then our section movement-to-contact (MTC) live-fire training; and, finally, our close-quarters battle, shoot-house live-fire training. These three training events made all the difference during our deployment.

Convoy Live Fire. We conducted our convoy live-fire training in March 2005. Fort Campbell has a range known as the "Artillery Road Live-Fire Range." This range has approximately three kilometers of road, two small villages and an extensive target array complete with simulators for improvised explosive devices (IEDs), rocket-propelled grenades (RPGs) and pneumatic guns. Like most ranges of this type, it has some restrictions on weapon usage, only allowing certain types of weapons to be used at specific points within the range limits.

We began with the first platoon using the entire range complex. But, after watching the first blank-fire iteration, we quickly realized the real benefit of this training event would be to have each platoon respond offensively to a complex attack initiated by an IED in the vicinity of the two small villages. So we cut out the first half of the range, which required each platoon to fire at target arrays while on the move, and focused exclusively on the second half of the range. Each platoon had to assault the villages after an IED attack on its convoy.

It was amazing to watch the platoon leaders and platoon sergeants progress from dry fire to live fire on this modified range. My S3 and I walked each platoon through the basics of fire and maneuver, taking each platoon through a live-fire iteration.

Learning across the board was tremendous, but the real benefit was at the platoon leader and platoon sergeant levels. By the end of this training, each of my platoon leaders understood how to control fires and maneuver his platoon during a fire fight. This paid huge dividends during our deployment.

Section MTC. We conducted our section MTC live fire in June 2005. The range complex allowed for a one-kilometer dismounted movement during which each section had to assault through three

The *Tomahawks*, 4th Battalion, 320th Field Artillery (4-320 FA), Fort Campbell, Kentucky, participate in reflexive fire training before deploying to Iraq.

enemy positions to reach its objective. Each enemy position had a series of targets representing three to five enemy personnel, two or three fighting positions and a pneumatic gun.

As my S3 and battery and company commanders walked each section from dry fire to blank fire to live fire, you could see the Soldiers' confidence and competence grow. The section sergeants learned how to task-organize their sections into teams, assign team leaders, control movement and control fires. The team leaders learned how to control movement and control fires. The Soldiers learned how to fire and maneuver and gained confidence in their section leadership.

Training live fires at this level built depth in the leadership of the battalion. Each platoon leader and platoon sergeant had to walk the lane with his section to ensure the Soldiers learned from this training along with their section sergeant.

Close-Quarters Battle, Shoot-House Live Fire. We conducted our close-quarters battle, shoot-house live-fire training in October 2005. It was the last significant training event before deploying. We built the range so each team would complete reflexive fire and "glass-house" training before starting its iteration in the shoot house. The glass-house is an engineer taped replication of the shoot house that allows leaders to watch the Soldiers' actions in each room from the ground level.

The glass-house training replicated what the teams eventually would see in the shoot house. Two of our platoon leaders, who previously had served in our sister Infantry battalions, were the primary instructors for both the glass-house and the shoot-house training.

From the catwalk on top of the shoot house, my platoon leader (primary trainer), S3 and I watched our teams become confident, competent and lethal inside a room and building. Each team quickly mastered the techniques for entering a room, eliminating a threat, clearing a room and moving to the next room. Every team in the battalion progressed from dry fire to blank fire to live fire and left the range confident in its team's ability to conduct lethal operations inside a building.

The Critical Turning Point. In September 2005, we task-organized into our maneuver set. After our transformation, each firing battery had four platoons, each with 20 Soldiers. Our platoon leaders were given gunnery sergeants for platoon sergeants, and our fire direction officers (FDOs) became platoon leaders with "Smokes" (Chiefs of Firing Battery) for platoon sergeants.

The 4-320 FA *Tomahawks* conduct the hands-on portion of their Combat Lifesaver Training.

My headquarters battery stood up a platoon of 20 Soldiers using the target acquisition (TA) platoon leader as the leader and the battalion master gunner as the platoon sergeant. My forward support company stood up two platoons of 20 Soldiers using the maintenance control officer and distribution platoon leader and our Class III and water section chief and a maintenance support team motor sergeant as their platoon sergeants. This task organization created 11 maneuver platoons for the battalion.

These platoons immediately began conducting all training as platoons. The simple act of conducting daily PT together began the team-building process that "carried the day" many times in the year to come. For the next year, these platoons fought as cohesive units with distinction. The decision to task-organize two months before deploying may have been the best decision made at that point in my command.

Hind-Sight Training. If I had it to do over again, I would have found a way to task-organize as a maneuver unit much earlier. Several of our critical training events (convoy live-fire exercise and section MTC) were executed in our modified table of equipment (MTOE) configuration. I could have created our maneuver task organization as a shadow task organization during our train up.

We mixed maneuver training in with our FA training so our transformation could not have occurred much earlier. Having the shadow task organization in effect for critical maneuver training events would have been beneficial.

Before deploying, we never executed battery-level cordon and search training—which definitely would have been beneficial. Fortunately, I have outstanding battery commanders who were able to conduct these operations during our deployment.

Every unit faces its own set of circumstances that impact its pre-deployment training. These reflections are intended to help commanders as they build their training plans in support of the War on Terrorism (WOT).

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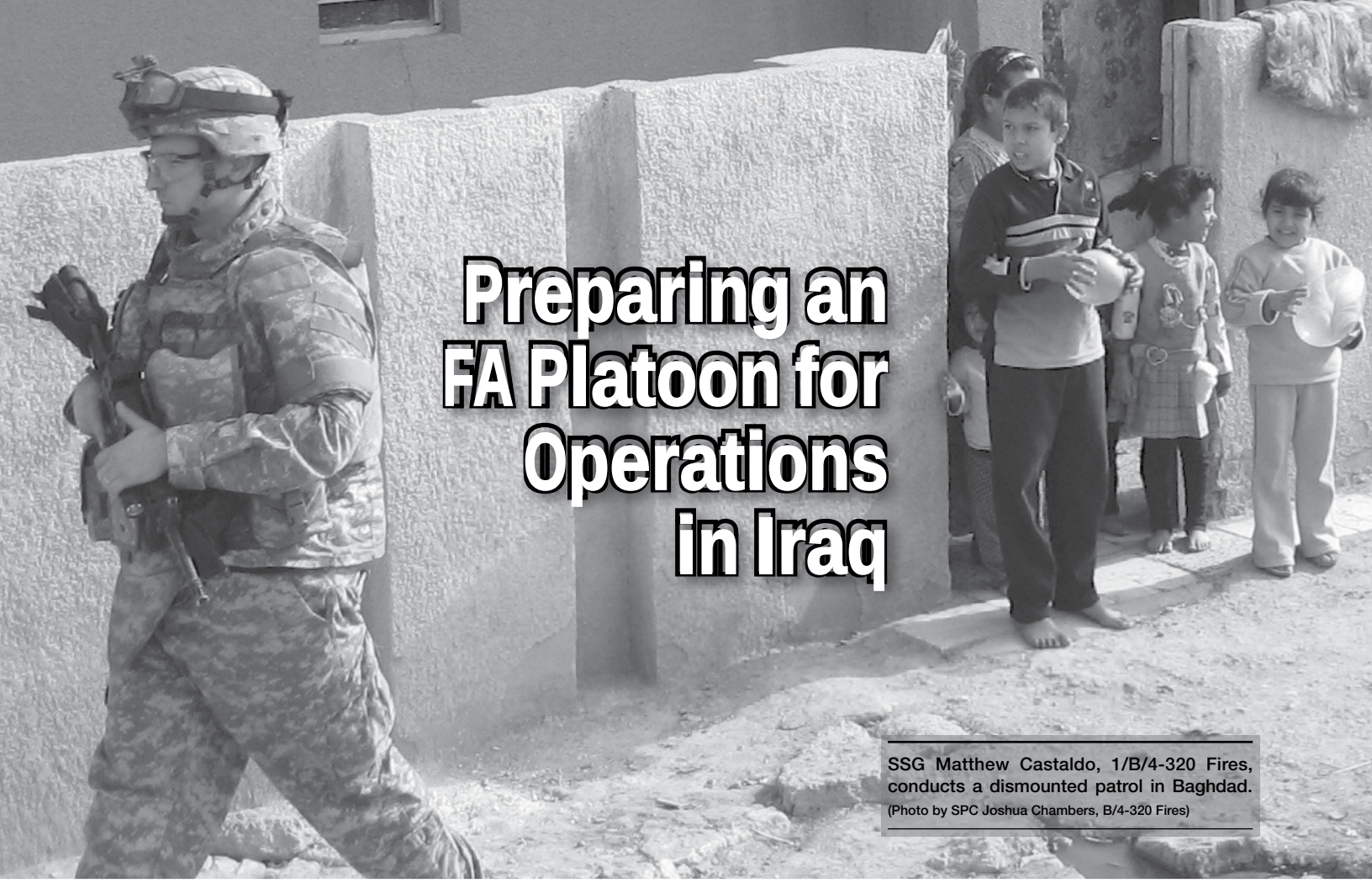


Preparing an FA Platoon for Operations in Iraq

SSG Matthew Castaldo, 1/B/4-320 Fires, conducts a dismounted patrol in Baghdad.
(Photo by SPC Joshua Chambers, B/4-320 Fires)

By Captain Clenn M. Frost, FA

The Soldiers of the 1st Platoon, B Battery, 4th Battalion, 320th Fires (1/B/4-320 Fires) conducted more than 225 maneuver combat patrols in Iraq—a reality for many Artillery units deployed in support of Operation Iraqi Freedom (OIF). 4-320 Fires *Tomahawks,* part of the 506th Regimental Combat Team, 101st Airborne Division (Air Assault), were stationed in east Baghdad and responsible for providing security and training Iraqi security forces (ISF) in our area of operations (AO). As Artillerymen, we always had to be prepared to deliver indirect fires, but we found ourselves fighting as infantrymen in high-stakes situations where inexperience and a lack of training were no excuse for failure.

This article addresses lessons learned for organizing, equipping and training Artillery Soldiers at the tactical level to accomplish a maneuver mission while maintaining proficiency at Artillery skills. It does not provide a "cookie cutter" approach but discusses what did and did *not* work in 1/B/4-320 Fires' preparation for deployment and provides recommendations to prepare Soldiers at the battery and platoon levels for a maneuver mission.

Organization. The traditional Artillery battalion organization is not conducive to a maneuver mission due to its limited manpower and inadequate number of available combat elements. B Battery was a firing battery with two platoons of approximately 45 men each. Two platoons did not give the battery commander many options when assigning tasks and conducting missions. With only two firing batteries, the battalion had four Artillery platoons.

The *Tomahawks* had 360 Soldiers in Iraq, whereas the sister infantry battalions each had from 600 to 800 Soldiers. Each unit executed similar missions.

When assigned a maneuver mission in theater, the Artillery battalion should maximize its capabilities by reevaluating its organization and conducting a detailed troops-to-task analysis. 4-320 Fires divided each firing battery into four maneuver platoons and created one platoon from headquarters and headquarters battery (HHB) and two platoons from forward support company (FSC).

The battery's organization works well for this structure because it has a relatively large number of leaders to cover the platoons. Fire direction officers (FDOs) became platoon leaders, and gunnery sergeants became platoon sergeants.

We reorganized this way three months before deploying. This allowed us to train as a maneuver unit during the last phase of preparations for combat operations. With this organization, the battery commander had flexibility in rotating Soldiers through conducting patrols and missions, performing maintenance and getting rest.

The firing batteries were assigned sectors in the battalion AO while the HHB and FSC platoons rotated through quick-reaction force (QRF) assignments.

The battalion had 11 platoons to meet changing threats in the AO. Commanders had options for planning battery and battalion operations and maximizing manning capabilities.

Not all Artillery batteries have enough Soldiers to divide into four platoons. The battery that relieved us in Baghdad had fewer Soldiers than we did. Instead, it organized into three platoons per battery with one of the FDOs becoming a full-time executive officer (XO).

Units will have different tasks and manpower considerations that will affect how they organize to accomplish

their missions. However, leaders should make the organizational change as soon as possible so Soldiers and leaders can train the way they will operate in theater before deploying.

The reorganization creates a need for administrative modifications. Soldiers have to be able to clearly identify their new chains of command, which can be accomplished by changing the rating schemes. For example, a traditional gunner may serve as a maneuver team leader and work for squad and platoon leaders who were not originally in his rating scheme. I rated some Soldiers who were in other platoons and did not rate some Soldiers in my platoon. Our battery struggled with this throughout the deployment.

It is best to conduct a change-of-rater NCO evaluation report (NCOER) when a unit reorganizes for maneuver operations. The new rating scheme is important to maintain clear order and provide effective counseling and evaluations.

Equipment. Units should avoid modified table of organization and equipment (MTOE) limitations when equipping maneuver platoons and conducting training for maneuver missions. An example of this is the number of crew-served weapons in my battery. My battery relieved a heavy Artillery battery that had several M240B 7.62-mm and M2 .50-caliber machine guns. As a light firing battery, we arrived in theater with M249 5.56-mm and M240B machine guns, but we had no .50 calibers. We tried to sign for some of the .50-caliber machine guns from the unit we relieved but could not because of our MTOE authorizations. We only had three in the battery at the beginning of the deployment.

Some of our gun-trucks had to use M249s as their crew-served weapons. While an M249 provides a high volume of fire, it does not have the firepower necessary in an urban environment where a relatively small number of American Soldiers may face a well-equipped, numerically superior enemy. Every gun-truck that goes out on patrol should have at least one M240B.

A unit with MTOE limitations should communicate with the unit it will relieve to establish what equipment is being used in the AO. The unit then should coordinate to transfer equipment and apply for exemptions to the MTOE. During the deployment, my platoon eventually received .50-caliber machine guns.

Training. Based on the MTOE, the weapons assigned to the battery guided who trained on those systems, which was inadequate for a maneuver mission. Each howitzer section had one M240B with M249s assigned to the fire directions centers (FDCs) and headquarters section.

Although all Soldiers received basic familiarization on each crew-served weapon, only two gunners per section had the opportunity to fire rounds and qualify on their respective weapon system. As a result, we had few Soldiers qualified on crew-served weapons, which became an issue in Iraq where we needed well-trained gunners.

Each Soldier should have live-fire familiarization with at least the M249, M240B and the .50-caliber machine gun. In Iraq, Soldiers will rotate through positions constantly due to environmental leave, injuries, an attempt to forestall complacency and a host of other factors. To rotate gunners and maintain the same level of lethality, all Soldiers should know how to operate these weapons and have live-fired them—at the minimum, to build the Soldiers' confidence. Soldiers' confidence in their skills is extremely important when "rolling out of the gate."

Maneuver. The only way for Soldiers to prepare for their combat duties is to conduct realistic, intensive training. The first step is ensure Artillery Soldiers learn proper maneuver tactics, techniques and procedures (TTPs). The best way to achieve this goal is to partner with the brigade's maneuver units to observe their training, learn their TTPs and seek advice.

My battalion adopted 1-506 IN's close-quarters battle standing operating procedures (SOP). The battalion implemented this SOP, trained based on it and then conducted a live-fire evaluation after we transitioned into our deployment organization.

The evaluations of our close-quarters battle shoot-house live fire were instrumental in our preparations because they demonstrated team-level proficiency and built Soldiers' confidence. In my platoon, Soldiers were willing to accept their roles as infantrymen and eager to close with the enemy, but they also were skeptical about their abilities to do so with limited training. The live-fire was a turning point that resulted in the no-Soldier-is-better-than-I-am attitude.

Reflexive-fire and stress-shoot ranges also should be scheduled frequently during deployment training. These ranges allow Soldiers to fire many rounds from their individual weapons in several different positions and situations.

While we worked well with our brigade infantry units, I could have done more to develop my skills and those of the leaders in my platoon. Although I continued to seek infantry advice, I stopped observing infantry exercises once I became a platoon leader in 4-320 Fires, five months before deployment.

In hindsight, I should have tried to coordinate with a maneuver company for my team leaders and above to be able to

Soldiers from B/4-320 FA conduct close-quarters battle training at Fort Campbell, Kentucky, before deploying to Iraq. (Photo by 1LT Clenn Frost, B/4-320 Fires)

watch its training and develop lessons learned to bring back to the battery. It also would have been beneficial to have had infantry NCOs train my leaders and me on TTPs—train the trainers.

Soldiers need to practice with the equipment they will use during the deployment to create realistic training. My battery only had troop carrier High-Mobility, Multipurpose Wheeled Vehicles (HMMWVs) (another MTOE limitation). That meant we had difficulty training as a gun-truck team in the positions we would occupy during combat.

To create a more realistic training experience, my battalion coordinated with 1-61 Cav to borrow "turtle-back" HMMWVs that more closely replicated an up-armored model. We then conducted a day-long training event that included virtual convoy training followed by platoon react-to-contact lanes. This was resourceful planning and coordination that resulted in valuable training.

Our virtual training was useful because we had up-armored HMMWV replicas along with Iraq scenarios. This helped develop platoon communications skills as well as internal truck-crew drills, but it was not the same as actually being in the trucks conducting movements.

Based on our success while training with the turtle-back HMMWVs, our mounted training would have been more constructive if we had coordinated for them for several training periods. The virtual convoy trainer could be used to maintain and refine the skills developed from the hands-on training or if the turtle-back HMMWVs were not available.

Patrolling. Units should develop realistic training for every aspect of their future mission. For example, Soldiers should conduct crew-served weapons training on ranges for both mounted and dismounted operations.

My battery conducted all of our weapons training dismounted because of our role as a light unit and because we did not have HMMWVs with turrets. Soldiers still carry M249 and M240B machine guns on dismounted patrols, but training should include a convoy live-fire lane where the gunners can engage targets from a turret while maneuvering.

Soldiers also should conduct mounted land navigation and movement training in an urban area with a Blue Force Tracker (BFT) and map while scanning for improvised explosive devices (IEDs). This is a skill that requires practice. The platoon must maneuver through congested urban areas while scanning the roads and buildings looking for possible threats. Training for mounted land navigation in a rural area with only a map is easier to coordinate and execute, but it doesn't develop all the skills Soldiers will need in Iraq.

While deployed, my platoon usually was dismounted because this gave the platoon the best security and awareness while allowing us to communicate with local nationals. But dismounted TTPs are more difficult for Artillery Soldiers to learn.

My Soldiers quickly mastered mounted movement after we had the proper equipment because they trained for that in traditional Artillery operations. Dismounted movement techniques were more difficult to perfect.

Training should develop these skills sequentially through the individual, team, squad and platoon levels. A Soldier on the ground who is ready to engage the enemy is much more valuable than a Soldier sitting in the back seat of a HMMWV, moving from Point A to Point B. Dismounted patrols minimize the enemy's strengths while enhancing Soldiers' capabilities.

Versatility. Soldiers and leaders in Iraq face a diverse set of tasks on almost every mission. Units will depart the forward operating base (FOB) with a task and purpose that often change during patrols due to events in and around the AO. Soldiers are expected to be warriors who can conduct direct-action operations; but on any given patrol, they also may find themselves serving as diplomats, investigators, police, engineers, medics, advisors or trainers of the ISF. Counter-insurgency (COIN) is a difficult fight that requires well-rounded Soldiers.

Members of 1/B/4-320 Fires meet with neighborhood council members, Iraqi Security Force commanders, local sheikhs and Iraqi citizens to help improve the security plan in a volatile district of Baghdad. (Photo by SPC Pridgen, 92nd Combat Camera Company)

Training on culture and COIN techniques before deployment is important to prepare Soldiers for the many tasks they will need to perform. This training will help Soldiers build relationships with the local nationals to win the battle for military intelligence.

The most difficult part of COIN was determining who the insurgents were and where they were located. Building relationships with the locals can ensure their neutrality and, many times, win their support, including their providing intelligence on insurgents.

Leaders need to know the current events and the relationships among religious, political and ethnic groups in their AOs

to understand the complexities of events "on the ground."

An attack in Mosul may create a change in activity among militias in Baghdad, and it is important for a patrol leader to understand the impact of one event on another. This helps a leader evaluate the enemy threat during tactical planning, so a unit can accomplish its mission while mitigating risk.

The 22 February 2006 bombing of the al Askariya shrine in Samarra illustrates the critical connection between current events and cultural awareness. The shrine, also known as the Golden Mosque, is a significant spiritual and cultural icon to the Shi'a. The attack on the holy shrine triggered the Shi'a's emotional outrage throughout the country.

Eastern Baghdad is predominantly Shi'a and has a strong militia presence. As a result, revenge killings against Sunni local nationals and attacks against American convoys rose dramatically in the area we patrolled after the mosque was bombed. An event more than 60 miles away from Baghdad created an unstable environment in my AO and had a distinct impact on my platoon's operations.

Communications. The ability to communicate with and question local nationals is a skill that should be developed while at home station. Basic Arabic language skills can be taught to all Soldiers, enabling them to communicate directly with the populace rather than just through the interpreter.

A local national often approaches a Soldier who is providing security—a Soldier with no interpreter close by. The Soldier's ability to understand the basic message the local is trying to convey will help him differentiate between an Iraqi who is just curious from one who has pertinent information. Language skills also are important for crowd control at gatherings of emotional Iraqis where Soldiers must maintain security and create calm.

This does not mean Soldiers have to speak fluent Arabic. Phrases that are commonly used as well as numbers, greetings, words that indicate violence, words that help identify a location and words that provide directions for security are important to learn. Soldiers can learn these in a classroom and then practice them during training exercises.

On several missions, I had a tactical human intelligence (HUMINT) specialist attached to my platoon to question local nationals for specific information. This specialist was an outstanding asset, not only because of his expertise in the field, but also because if I had had to conduct the questioning, then I would not have been supervising my platoon's operation.

HUMINT specialists usually are not available; therefore, it would be beneficial to train team leaders and above on tactical questioning techniques. This provides the patrol leader the flexibility to have a trained NCO conduct the questioning while the patrol leader maintains command and control of the other mounted and dismounted elements he is responsible for.

Balancing Artillery and Infantry Training. A major limiting factor in a unit's preparation for deployment is time—the time available to train before receiving the mission and the time available to train and prepare for a unique mission after it is assigned. The limited time was further complicated by the fact that 4-320 Fires was activated and became part of the 4th Brigade Combat Team in the 101st Division approximately 14 months before it deployed to Iraq.

Many battalions have short periods between deployments to recover, train and deploy again. There simply is not enough time to train on all aspects of Artillery and infantry skills. This places a great deal of responsibility on leaders to prioritize training.

As a platoon leader, I did not know my mission until a few months before we deployed—did not know if my mission would focus on providing indirect fires or patrolling. As a Field Artilleryman, I knew we were a brigade indirect fire asset; but as a leader, I did not want to deploy knowing my Soldiers and I were not ready to fight as infantrymen. It is unrealistic to expect a unit to have trained to a state of perfection on all skills.

Establishing priorities for training is the key to success in preparing Artillery Soldiers for a diverse set of responsibilities while deployed. The priorities will be different for each battery and battalion, depending on time available, the Soldiers' experience and resources.

While deployed, we sometimes had to provide a counterfire "hot gun" for six to 12 hours a day. In this role, we laid the primary and secondary howitzers and set up the FDC at a designated point. Once verified, the howitzers and FDC were on a standby status for a fire mission during predetermined time periods.

In this situation, the firing unit's key to success is to have the shortest possible time between receiving the mission and "rounds complete." Crew drills that concentrate on this part of the mission need to be the training priority. Units often have competitions between sections and platoons and take pride in how quickly they can occupy positions and march order. While those competitions do motivate Soldiers, the bottom line is that movement was not a factor for us when firing artillery.

I recommend Soldiers focus on mission-receipt to mission-complete skills so they have enough time to train on other drills and skills they will need to perform in combat, including for maneuver missions.

The time that a unit receives its mission—or at least a strong indication of what it may be—is an important point to transition training. Most training can be accomplished before this time, which will be a majority of time the unit has to prepare for deployment. After that point, units can concentrate on the mission skills that may not have been an emphasis before.

Leaders should train Artillery and basic maneuver skills at the individual and team levels before receiving the mission. By being trained to this level, batteries with maneuver missions assigned for their deployment can focus on maneuver training for their squads and platoons the last few months.

For example, Soldiers should not be receiving a week-long combat life saver course two months before deploying for a maneuver mission. Combat lifesaver training can be trained in advance, reserving the unit's time to conduct collective maneuver training. If the battalion receives an Artillery mission, the battery then can concentrate on occupation and march order training that may not have been mastered in the period before receiving the mission.

My battery transitioned to our maneuver organization once we had a clear understanding of our mission, but we were behind in team-level training. We then had to train on individual- and team-level skills in preparation for our close-quarters battle live-fire evaluation. As a result, we did not have much time to conduct squad and platoon training with our new organization.

A better training event two months before deployment would be a platoon cordon and search in an urban environment. Because teams already would be trained on room clearing, the focus of the event would be on squad leaders and

platoon leaders who have to maneuver multiple elements.

Tactics. Leaders should be flexible in their approach to developing TTPs. Leaders should train and prepare their units based on doctrine and the experience of Soldiers returning from deployment, but not be limited by them.

Threat-based analysis and the ability to continually change tactics is the most effective way to achieve success. TTPs for a platoon operating in eastern Baghdad may look very different from those of a platoon in western Baghdad, let alone Ramadi. The way my platoon operated changed continually throughout my deployment due to the enemy's changing TTPs, current events and technological advancements.

Tactical leaders need to be creative and conduct demanding pre-deployment preparations. Artillerymen must maintain Artillery skills yet be prepared to transition to and train as a maneuver organization once assigned the mission.

For the *Tomahawks*, the situation in our AO in Iraq was extremely complex and demanded intelligent and adaptive Soldiers who had the will to accomplish any mission.

Captain Clenn M. Frost, Field Artillery (FA), is the Battalion Fire Direction Officer (FDO) for 4th Battalion, 320th Fires (4-320 Fires), 506th Regimental Combat Team, 101st Airborne Division (Air Assault), at Fort Campbell, Kentucky. His previous assignment was as the Plans Officer for 4-320 Fires. He served as the Platoon Leader for 1/B/4-320 Fires, deploying for Operation Iraqi Freedom 05-07, and as the Fire Support Officer (FSO) for A/1-506 IN, also at Fort Campbell. He is a graduate of the US Military Academy and a Distinguished Honor Graduate of the Field Artillery Officer Basic Course 06-04.

New Deputy to the CG and AC at Fort Sill

Kirby R. Brown, Senior Executive Service (SES), became the Deputy to the Commanding General and the Director of the Capabilities Development and Integration Directorate (CDID); and Colonel (Promotable) Richard C. Longo became the Assistant Commandant (AC) of the Field Artillery (FA) School, both in the Fires Center of Excellence, Fort Sill, Oklahoma. The changes occurred during a ceremony on 27 August at McNair Hall. The outgoing AC, Colonel Albert Johnson, Jr., had served in that position since 25 September 2006.

Kirby Brown's previous assignment was as the Director of the Space and Missile Defense Command Battle Lab at Colorado Springs, Colorado. His responsibilities included the development of future operational concepts and experiments involving space and missile defense technology and the integration of these technologies into worldwide Army joint and combined experiments and exercises.

While in the active Army, he was assigned to the 1st Infantry, 2nd Infantry and 3rd Armored Divisions. He also served in the Army Space Command (ARSPACE) in Colorado Springs; the Training and Doctrine Command (TRADOC) at Fort Monroe, Virginia; and the Office of the Chief of Staff of the Army at the Pentagon, among other assignments.

He is certified at Level Three for Systems Planning, Research, Development and Engineering and Level One for Program Management in the Acquisition Corps.

Colonel Johnson, the outgoing AC, retires from the Army on 1 January 2008 after more than 28 years of service. His next job will be as the Vice President for University Advancement at Cameron University in Lawton, Oklahoma.

Colonel Longo's previous assignment was as the Chief of Staff of the US Army Pacific (USAPAC) at Fort Shafter, Hawaii. Before that, he was the Executive Officer (XO) to the Deputy Commanding General, US Army Europe (USAREUR) in Germany.

He commanded the 1st Infantry Division Artillery (Div Arty) in Germany, deploying the Div Arty in support of Operation Iraqi Freedom (OIF) II. He also has served as the Chief of Task Force XXI, working Field Artillery transformation issues, and as the G3 for III Corps Artillery, both at Fort Sill.

He commanded 1st Battalion, 14th Field Artillery (1-14 FA) (Multiple-Launch Rocket System), 214th FA Brigade, III Corps Artillery, Fort Sill, and served as XO for 2-82 FA and as the Deputy Fire Support and Deep Battle Coordinator in the 1st Cavalry Division at Fort Hood, Texas.

He also commanded C Battery, 1-333 FA, 42nd FA Brigade, V Corps Artillery, Germany. He holds an MA in Economics from the University of Oklahoma.

At the 27 August ceremony (from the left), COL Rich Longo, incoming Assistant Commandant (AC); Kirby Brown, SES and Deputy to the Commanding General; MG Dave Ralston, Commanding General of Fort Sill; and COL Albert Johnson, outgoing AC. (Photo by Linda Young, Fort Sill Training Service Center)

Fire Support is Commanders' Business

During the 2007 Fires Seminar [at Fort Sill, Oklahoma], Lieutenant General Thomas F. Metz, Deputy Commanding General of the Training and Doctrine Command, provided the closing remarks. During those remarks, he made a point that was not lost on the seminar participants: "Fire support is commanders' business."

In fact, my Boss, Colonel Burdett K. Thompson, Commander of the 1st SBCT [1st Stryker Brigade Combat Brigade], 25th Infantry Division [Fort Wainwright, Alaska], had designated me, the new commander of his organic fires battalion, as his Fire Support Coordinator (FSCOORD). The modular force structure of the SBCT calls for the Deputy Effects Coordinator (DECOORD), a major, to be in the SBCT headquarters as part of the staff. But Colonel Thompson also believes fire support is commanders' business—his and my business.

LTC Matthew R. Anderson
Commander, 2-8 FA
1st SBCT, 25th Infantry Division
Fort Wainwright, Alaska

By Colonel Burdett K. Thompson, IN

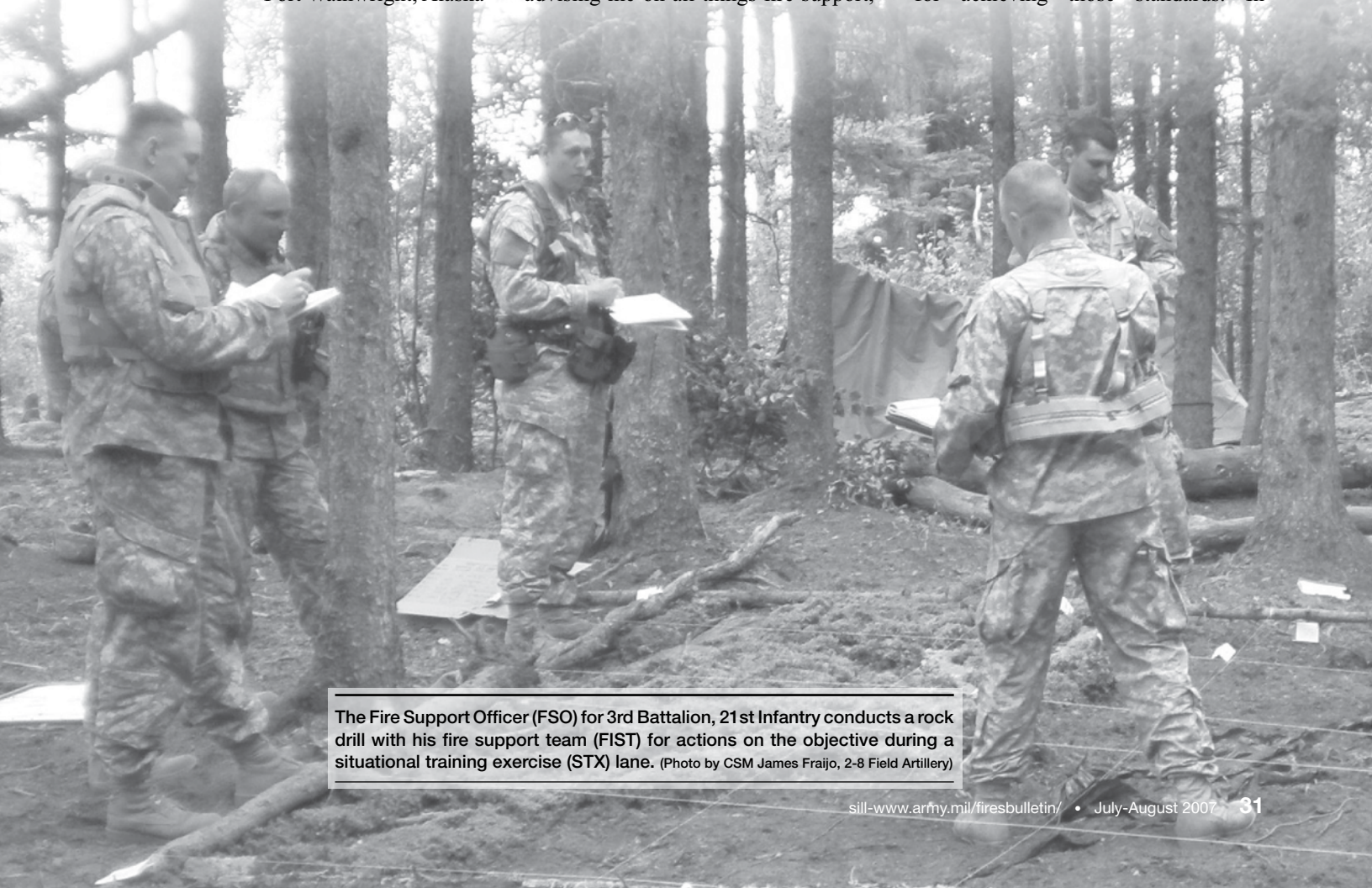
Following a 16-month deployment to Iraq, the 1st SBCT finished Reset operations of the Army Force Generation (ARFORGEN) model and received a global reaction force (GRF) mission while in the ARFORGEN Ready Pool. We anticipate a deployment order that will move us into the Availability Pool with a counterinsurgency (COIN) mission.

Because of our GRF mission involving full-spectrum operations, it clearly was important to retrain the basics of fire support to be able to receive responsive, accurate lethal fires from all types of platforms. The best way to ensure fire support proficiency is to use the tools the brigades have used for the last 20 years: certifications, leader professional development (LPD) sessions and fire planning exercises (FPXs)—in short, go back to the basics.

The new fires battalion commander, Matt Anderson, and I agreed that he was to be the brigade's FSCOORD, advising me on all things fire support, and responsible for training, resourcing and oversight (TRO) of the brigade's fire support teams (FISTs). We further agreed that he could best accomplish FIST TRO by partnering with his peers to maintain fire support proficiency. These are the maneuver commanders who "own" the Military Occupational Specialty (MOS) 13F Fire Support Specialist Soldiers assigned to their battalions and squadron.

The basis of the partnership between the fires and maneuver battalions and squadron resulted from a staffing document with recommendations for assigning, training and certifying Career Management Field (CMF) 13 Soldiers in maneuver units. This memorandum outlines the career management of 13A fire support officers (FSOs) and the career development, training and oversight support for all 13F Soldiers in the brigade.

While my fires battalion commander develops and recommends fire support personnel standards, I endorse them as brigade-wide standards and hold the maneuver commanders responsible for achieving those standards. In



The Fire Support Officer (FSO) for 3rd Battalion, 21st Infantry conducts a rock drill with his fire support team (FIST) for actions on the objective during a situational training exercise (STX) lane. (Photo by CSM James Fraijo, 2-8 Field Artillery)

1. The fires battalion commander is the fire support coordinator (FSCOORD) for the 1st SBCT.
2. He partners with the maneuver battalion/squadron commanders for the professional development of the SBCT's fire support teams (FISTs) and fire support officers (FSOs).
3. The 1st SBCT's certification programs include certifying FIST and mortar crews and maintaining the qualifications of our joint fires observers (JFOs).
4. The 1st SBCT's fire support leader professional development (LPD) sessions include:
   a. Fire support brown-bag lunches to facilitate discussions among fire support leaders in the company, covering these topics:
      (1) Fire Support's Role during Cordon and Knocks, Raids, Searches, and Fixed-Site Security Operations
      (2) Fire Support Planning and Refinement/Requirements of a Target—Purpose, Location, Observer, Trigger-Communications and Rehearsal (PLOT-CR); Minimum Safe Distances (MSDs); and Risk Estimate Distances (REDs)
      (3) High-Value Targets (HVTs) and High-Value Individuals (HVIs)
      (4) Company, Battalion and Brigade Fire Support Rehearsals
      (5) Air-to-Ground Fires Integration in Operations—Attack Aviation and Close Air Support (CAS) Aircraft
      (6) Nonlethal Engagements
      (7) Assessments in Support of the Targeting Process
      (8) Countermortar Operations
   b. Brigade commander's discussion with the "Wolf Pack" (company commanders) on a range of topics covering operations at the company level and below, including the proper use of the FIST, company-level input and output to the targeting process, crater analysis and air-ground integration.
5. Conduct fire planning exercises (FPXs) at the platoon and higher levels to improve the understanding of the complementary effects of direct and indirect fires and their integration into combat operations.

Figure 1: 1st Stryker Brigade Combat Team's (SBCT's) Strategy to Ensure the Effectiveness of Fire Support

conjunction with the FSCOORD and DECOORD on the brigade staff, I developed five points as the basis for making fire support commanders' business, as shown in Figure 1.

Fire Support Certifications. Knowing the brigade soon would be back in the Central Command (CENTCOM) theater, I wanted to ensure my 13F and mortar Soldiers learn the basics within the short time remaining.

The fires and effects coordination cell (FECC) on the brigade staff produced draft versions of the FIST and mortar certification programs for the fires battalion commander to review. I approved the refined version, and brigade units received them within a month of returning from block leave after the recent deployment.

These programs require semi-annual execution. If the average unit has one year of dwell time before returning to the CENTCOM area of responsibility (AOR), it executes the certifications at least twice before returning to theater.

The certification programs as outlined in Figure 2 are not new but refined by our Operations Iraqi Freedom (OIF) and Enduring Freedom (OEF) experiences.

The brigade's experiences in Mosul and Baghdad taught us we needed more close air support (CAS) controllers. Through an Army-Air Force memorandum of agreement, the Army's 13Fs and others receive training as joint fires observers (JFOs), training that teaches them to work closely with a joint terminal attack controller (JTAC) to control CAS. In an emergency, the JFO can control the terminal attack of a CAS aircraft directly.

Our JFO training is intended for 1st SBCT personnel assigned or selected for duty as a platoon forward observer (FO) or members of a reconnaissance/scout organization. Once certified, a JFO must maintain his qualifications.

Soldiers enrolled in the JFO program are my "go-to-war" Soldiers. Once trained and certified, they won't rotate to another position until the brigade redeploys. The brigade's 3rd Air Support Operations Squadron (ASOS) provides sorties to maintain the qualifications of our JFOs during their pilots' routine CAS training.

Due to the shortage of FA captains to fill battalion FSO positions, the fires battalion has its battery commanders mentor the lieutenants filling the company FSO positions. The skills and experience of the fire support sergeants at the company and battalion levels maintain fire support continuity for the maneuver units until the are manned with battalion FSOs.

To help develop the 13F NCO leaders and company FSOs, the brigade initiated brown-bag lunch LPDs. Staff sergeants and above attend a monthly discussion on both lethal and nonlethal fire support operations. The fires battalion commander chairs these discussions that cover topics such as fire support actions at each step of the troop-leading procedures (TLP); company, battalion and brigade fire support rehearsals; planning factors for minimum safe distances (MSDs) and risk estimate distances (REDs); planning, coordination and execution of CAS; attack aviation air-ground integration; high-value individual (HVI) targeting; nonlethal engagements; and assessing the effects of the lethal and nonlethal targeting process.

Fire Planning Exercise—Integrated Training. The purpose of the FPX is to teach company and troop commanders and their respective combined arms teams to integrate direct and indirect fires and nonlethal effects into full-spectrum operations, including COIN

FIST Certification
- Written Skill Level Exam
- 17 Calls-for-Fire (Based on Skill Level)
- Observation Post Occupation (Dismounted and Mounted in the Stryker Fire Support Vehicle)
- Land Navigation
- Vehicle Identification

Mortar Crew Certification
- Written Skill Level Exam
- Ammunition Handling Exam
- Gunner's Exam
- Fire Direction Center (FDC) Certification
- Use of the M2 Aiming Circle
- Range Control Exam
- Safety Checklists
- Powder Burning Procedures
- Ammunition Handling Procedures
- Firing Incident Checklist

Figure 2: 1st SBCT's Semi-Annual Fire Support Crew Certification

operations. The combined arms team includes platoon leaders, platoon sergeants plus company mortar personnel and FISTers (FOs and the JTAC).

The brigade executes this FPX in four phases. Phase I Fires Integration Fundamentals classes and test are for platoon leaders and covers indirect fire, rotary and fixed wing, and nonlethal assets; how to call for and adjust fires; MSDs and REDs; and the handover between indirect and direct fires. Phase II is the Call-for-Fire Trainer (CFFT) classes and test for platoon leaders. Phase III Maneuver Fire Support Planning/Assessment allows the company, battery or troop commander to conduct TLP in preparation for Phase IV. Phase IV Execution is situational training lanes with fire markers or, preferred, rock drills integrating all assets. The battalion and company mortar crews, JTAC, battalion and battery fire direction center (FDC) personnel and FOs attend Phases III and IV. The fires and maneuver battalion/squadron commanders serve as observer/controllers (O/Cs) for Phase IV.

The fires battalion commander oversees the progression of the training by conducting weekly meetings with the brigade DECOORD. This meeting serves as an "azimuth check" for the FSCOORD, so he can ensure the training is meeting my intent. Each maneuver commander reports his FIST and mortar crew certifications during brigade training meetings and quarterly training briefings (QTBs).

The strategy outlined in this article sets the conditions for successfully integrating the brigade's lethal fires and nonlethal effects at the company level and below for operations across the spectrum of conflict. It ensures fire supporters are trained for combat operations and maneuver leaders are prepared to make the most of their fires.

The strategy also maintains the responsibility for fires firmly where it belongs: I am responsible for all brigade fires and my fires battalion commander coordinates them.

Colonel Burdett K. Thompson, Infantry (IN), has commanded the 1st Stryker Brigade Combat Team (SBCT), 25th Infantry Division, at Fort Wainwright, Alaska, since July 2006. In his previous assignment, he was a Strategic Planner in the J5 Strategic Plans Policy Division for the War on Terrorism (WOT) on the Joint Staff at the Pentagon. Among other assignments, he was the G3 of the 25th Infantry Division at Schofield Barracks, Hawaii; commanded the 2nd Battalion, 35th Infantry (2-35 IN), also in the 25th Division in Hawaii; commanded A Company (Anti-Tank), 1-504 Parachute Infantry Regiment (PIR), 82d Airborne Division, deploying his company to the Gulf for Operation Desert Storm (ODS); and commanded D Company, 1-504 PIR, deploying his company to Panama for Operation Just Cause. He holds two master's degrees, including a Master of Military Arts and Science (MMAS) from the School of Advanced Military Studies (SAMS) at Fort Leavenworth, Kansas.

The author wishes to thank Lieutenant Colonel Matthew R. Anderson, 1st Stryker Brigade Combat Team's (SBCT's) 2nd Battalion, 8th Field Artillery Regiment (2-8 FA) Commander, and Chief Warrant Officer Three Timothy A. Sheldon, 1st SBCT's Acting Deputy Effects Coordinator (DECOORD), for their contributions to this article.

Navy JMAST Team Supports Combined ADA Mission

Sailors from a US Navy Joint Mobile Ashore Support Terminal (JMAST) assigned to Naval Air Station Sigonella, Italy, brought their wartime communications skills "to bat" in support of a joint task force under V Corps' 69th Air Defense Artillery (ADA) Brigade (Wurzburg, Germany) during the February Exercise Juniper Cobra 2007 in Israel.

Juniper Cobra trains Air Defense units from the US and Israel to fend off aerial threats, including missiles carrying nuclear and chemical weapons. Nearly 500 Soldiers, Sailors and Airmen from the US European Command (EUCOM) and the Israel Defense Force participated in this year's exercise.

Juniper Cobra 2007 focused on integrating the US-Israeli missile defense systems—the US Army's Patriot and the Israelis' Arrow-2 systems. Each is designed to intercept and destroy incoming tactical ballistic missiles (TBMs) at different altitudes.

This year's exercise was downsized from its usual "boots on the ground" participation to mostly computer simulations. The exercise included the simulated use of two tier-3 weapons systems, the US Navy's Aegis ballistic missile and, for the first time in Israel, the US Terminal High-Altitude Area Defense (THAAD) missile.

JMAST is designed for use in joint military operation centers as a high-tech, self-contained and mobile command and control communications system to provide commanders in the field voice and media data resources. By using satellite communications, the detachment can make secure and nonsecure internet, video teleconferencing and telephone services available to field commanders. EUCOM frequently calls upon the Navy's European JMAST to support the communications of operations or training exercises.

Unfortunately, the Navy communications system hit "rough seas" when its high-powered amplifier experienced power fluctuations and wouldn't function properly. Although the JMAST equipment did develop a malfunction during Juniper Cobra 2007, its reputation with ground commanders remains as a valuable high-tech communications asset for training exercises and real-world missions.

SSG John P. Queen, Public Affairs NCO
69th ADA Brigade, V Corps, Germany

PO1s Gregory Tremblay (seated) and Justin Deleon-Horton troubleshoot one of the Joint Mobile Ashore Support Terminal (JMAST) satellite receivers, trying to pinpoint the cause of a malfunction. (Photo by SSG John P. Queen, 69th ADA Public Affairs, February)

A Different Approach to the

By Major Louis J. Palazzo, FA, USMC

Improvised explosive devices (IEDs) are the preferred weapons employed by insurgent forces in Iraq today. This form of warfare is not easy to counter. Often techniques for countering IEDs are passive in nature, thus allowing the insurgents to have the upper hand. However, as the old saying goes, "There is more than one way 'to skin a cat.'"

Tasked with the maneuver enhancement mission for the 101st Airborne Division's area of operations (AO), the 555th Combat Support Brigade (CSB) aggressively attacked the counter-IED fight in Iraq by applying combined arms techniques to the mission. By combining engineer patrols to clear routes with brigade combat team (BCT) intelligence, surveillance and reconnaissance (ISR) and division-level lethal assets, the 555th CSB took a proactive approach to countering IEDs and forced the insurgents to react to Coalition efforts, denying the insurgents freedom of action.

The Mission. Using a relatively new concept, the 555th CSB tackled the maneuver enhancement mission by employing its Assured Mobility Section in the CSB S3 section. This section's primary mission was to keep the main supply routes (MSRs) open and secure. Falling under the control of the CSB S3, the Assured Mobility Section worked closely with the CSB S2. The section helped keep routes open by using offensive and defensive combined arms counter-IED operations, synchronizing route clearance patrols with known convoy movements, sanitizing the route and repairing craters to deny the enemy a means to emplace IEDs, and coordinating with all elements traversing the MSRs within the division's AO.

The principle staff officer in the Assured Mobility Section was a Field Artillery (FA) major with knowledge and experience in fire support. Although an Artilleryman was not part of the 555th CSB's modified table of organization and equipment (MTOE), the brigade deployed with this FA officer to support this vital mission. The CSB commander recognized the need for a fire support officer (FSO) as part of the Assured Mobility Section to synchronize and coordinate ISR and lethal fires assets, route clearance patrols and BCT operations as they pertained to the maneuver enhancement mission. The skill sets an Artilleryman brought to this style of warfare proved to be vital to 555th CSB's success in the counter-IED fight.

While conducting operations in Iraq, the 101st Division recognized the need for centralizing the counter-IED fight under one section. Because the 555th CSB was tasked with maneuver enhancement, the CSB became responsible for synchronizing and coordinating the application of lethal and nonlethal assets in support of the counter-IED fight within the division's AO. In conjunction with the division's fires and effects coordination cell (FECC), the Assured Mobility Section worked with units in the division as well as units that habitually transited the 101st Division's operational environment to achieve synergy in the counter-IED fight (for example, 3rd Corps Support Command or COSCOM).

This was not done easily. It was not the Assured Mobility Section's intent to tell any AO "owner" how to fight his fight. The intent was for the section FSO to be the focal point for synchronizing and coordinating all division sensor and shooter assets dedicated to the counter-IED fight.

A biweekly meeting with the division chief of staff provided guidance that was translated into a two-week support matrix concentrating along targeted areas of interest (TAIs) within the division's AO. Continuously reviewing these TAIs justified the application of ISR assets and combat power to defeat IED insurgents working in the AO. All units involved in working in the TAIs had input into the TAIs. The 555th CSB S2 and section FSO reviewed the TAI input and presented it to the division chief of staff for approval and imple-

Counter-IED Fight in Iraq

mentation.

Once approved, sensor and shooter assets were assigned to the BCTs for the counter-IED fight along the TAIs in their AOs. The BCTs worked closely with the Assured Mobility Section to ensure ISR, air and route clearance assets were linked to the counter-IED plan. In effect, this allowed the BCTs to work the tactical aspects of the plan while the section synchronized and coordinated assets outside the BCTs. Although there were some "glitches" in execution, this process proved successful in countering IEDs within the division's AO at the tactical level.

Division Air Assault Packages. Another aspect of countering IEDs capitalized on the division's ability to conduct air assault operations. The Assured Mobility Section worked closely with the intelligence sections and the division's and BCTs' air assault packages to counter the IEDs.

Two operations used in countering IEDs that capitalized on the division's air mobility were Operation Eagle Watch and Operation Blue Team, both using helicopter assault packages.

Using the Pathfinder Company organic to the 101st Combat Aviation Brigade (CAB), Operation Eagle Watch was a package of two UH-60 Blackhawks that conducted an airborne raid on insurgents operating within TAIs. Tied to an ISR asset, the Eagle Watch package focused on one or two TAIs over consecutive days and was prepared to execute an assault within minutes. This package normally was used in TAIs that had a lot of IED activity and employed during the hours the IEDs historically were most active.

Operation Blue Team was a similar package except the BCTs provided the reaction force. It was the same package that sometimes also was tied to an Apache attack helicopter (minus the squad of Pathfinder Soldiers).

These two helicopter assault packages brought flexibility to the counter-IED fight by responding quickly to intelligence. They did not always apply lethal means to take down targets. Additionally, these packages could be used for other missions within a BCT's AO when not employed in countering IEDs, maximizing the efficiency of the division's assets.

Although these packages did not have the counter-IED success rates the division staff had hoped for, they were unique and caused the enemy to adjust to Coalition Force actions. If nothing else, this approach made the enemy react, taking the initiative from the enemy.

Maneuver Enhancement—A Team Effort. One key to the Assured Mobility Section's operations was its intimate relationship with the 555th CSB intelligence section. The Assured Mobility Section and intelligence section were inseparable to flow the information needed to execute the mission. Without the products the S2 Soldiers produced, the maneuver enhancement mission would have failed. The S2 section's long hours of analyzing raw data, constructing predictive analysis diagrams and refining TAIs supported the mission and Soldiers' and Iraqi citizens' traveling safely on the MSRs in the division's AO.

Another key to the success of the Assured Mobility Section was its intimate relationships with the division's FECC and S2 section as well as the staffs of the BCTs and COSCOM. The Assured Mobility Section's mission was a team effort that needed input from all units involved in the fight. Capitalizing on the strengths of each team member, the Assured Mobility Section brought the most efficient and effective combat power to bear on the problems experienced daily on the roads in Iraq.

Not everything the 555th Assured Mobility Section did was successful; different assets were used and failed to counter the IEDS, and different tactics, techniques and procedures (TTPs) were implemented and did not work. Units in theater now or coming in theater with different capabilities and enemy TTPs have adjusted this counter-IED process to be most effective in their AOs.

However, the 555th CSB took steps proactively to counter IEDs on its own terms by trying new methods and limiting the enemy's freedom of action.

Lieutenant Colonel (Select) Louis J. Palazzo, Field Artillery (FA), USMC, currently is the Commanding Officer of 3rd Battalion, 12th Marines (3/12) in Okinawa, Japan. He was the Assistant Fire Support Coordinator (AFSCOORD) in the I Corps Fire Support Element (FSE) at Fort Lewis, Washington, and was attached to the 555th Combat Support Brigade as the Fire Support Officer (FSO) during the brigade's deployment to Iraq. He also served as the Iraqi Security Force Coordinator for Task Force Olympia in I Corps Forward, deploying in support of Operation Iraqi Freedom (OIF) from August 2004 to February 2005. Other assignments include serving as an Inspector-Instructor for H/3/14, Richmond, Virginia; S4 and Battery A Commanding Officer, 1/11, at Camp Pendleton, California; FSO for the Command Element of the 13th Marine Expeditionary Unit (MEU), Special Operations Capable (SOC), Camp Pendleton, deploying to Afghanistan for Operation Enduring Freedom (OEF); and Company Executive Officer (XO) of the Marine Corps Security Force Company, Sabana Seca, Puerto Rico.

Soldiers from a brigade combat team (BCT) search the roadside areas of a main supply route (MSR) in Iraq for improvised explosive devices (IEDs). (Photo by LCpl Nicholas Lapinski, USMC)

The New BAE —Airspace C^2

By Colonel (Retired) Robert D. Carter, AV

The mission of the BAE [brigade aviation element] is to provide integration and synchronization of aviation into the BCT's [brigade combat team's] scheme of maneuver.

Training Circular (TC) 1-400 BAE Handbook, 27 April 2006

The BAE concept evolved as part of Army transformation and was a solution identified by the Aviation Task Force (TF). This TF was convened in 2003 as part of the Chief of Staff, Army's focus groups and composed of aviation subject matter experts (SMEs) across the Army. The TF's mission was to reexamine the Army Aviation structure in terms of modularity and transformation. It reviewed lessons learned from Operations Iraqi Freedom (OIF) and Enduring Freedom (OEF) and countless combat training center (CTC) rotations. What the TF learned was that, across the board, aviation and ground maneuver continued to lack the synchronization desired by all.

Historically, Army Aviation provided liaison officers (LNOs) for short durations only. These LNOs were outstanding pilots, but they lacked the proper equipment, air-ground integration training, airspace coordination command and control (AC^2) training and, often, the right number of personnel to perform the planning.

The BAE was developed to meet the modular demands of the BCT and the combat aviation brigade (CAB). The contemporary operating environment (COE) demands well-aimed fires, synchronized ground maneuver and integrated aviation operations. The BCT and CAB have been redesigned to meet these needs, and the BAE has been established as an organic staff element within the BCT to ensure mission success.

The Army's senior leadership wanted to harness the air-ground integration synergy that existed with Special Operations Forces (SOF) where the air and ground relationship is interwoven tightly, resulting in well-planned and executed operations. Design analysis also looked at other staff organizations with proven track records. The fire support cell (FSC) in the infantry brigade had similar capabilities.

The BAE had to have all the attributes that made these other organizations successful. These attributes are listed in Figure 1.

On the BCT staff is the BAE, FSC and the Air Defense airspace management (ADAM) cell. The BAE, FSC and ADAM cell are integrated closely and, between the three, deconflict and integrate all friendly air-ground fires, maximizing the BCT's combat power.

The BAE provides an embedded 24-hour capability to plan and coordinate aviation operations, unmanned aircraft system (UAS) operations and AC^2 throughout the BCT's area of responsibility (AOR). It helps set the conditions for the BCT's success through the

The BAE–

- Has a robust, mature, mission-focused staff capable of 24-hour operations.
- Is a large enough organization to simultaneously conduct current operations and prepare future plans.
- Has a permanent presence and home station and conducts reception, staging, onward movement and integration (RSOI); combat operations; stability operations; redeployment; and regeneration.
- Provides embedded branch-specific (SMEs) capable of coordinating and deconflicting airspace laterally, with higher headquarters and joint headquarters.
- Provides Army Battle Command System (ABCS) connectivity and communications to facilitate the common operating picture (COP) and communicate with supporting units.

Figure 1: Attributes of a Brigade Aviation Element (BAE)

combined arms integration of aviation into the commander's scheme of maneuver.

BAE Organization. The BAE consists of a six-man team with a major as the officer-in-charge (OIC). A captain serves as the plans officer and second-in-charge with a chief warrant officer three (CW3) tactical operations officer. A Military Occupational Specialty (MOS) 15P Aviation Operations Specialist sergeant first class serves as the operations NCO, an MOS 15Q Air Traffic Control Operator staff sergeant is the assistant operations NCO and an MOS 15P specialist rounds out the team. These Soldiers represent the BCT's Aviation SMEs.

Staff Mission-Essential Task List (METL). The BAE staff METL is shown in Figure 2. To accomplish these tasks, the BAE must initiate planning that will be refined by the CAB or aviation battalion TF. Key to the success of the BAE is its ability to conduct conceptual planning 72 to 96 hours out while the CAB or aviation TF is conducting current operations. It cannot be overstated that what the BAE plans must be supportable by the aviation TF. The BAE accomplishes this by developing as close a relationship with the aviation TF as it has with its organic infantry battalion commanders and staffs.

At the same time, ground units must seek out the BAE and ensure they fully understand the capabilities and limitations of the aircraft and crews supporting the ground commander. The BAE and aviation organizations it supports are a partnership built on collaboration and teamwork.

The BAE must be proficient in planning those missions listed in Figure 3. Based on the wide breadth of knowledge required to plan these operations, the BAE must have officers, NCOs and Soldiers who are experienced, intelligent, fast-learning professionals who are ready for the challenge.

Training. As the BAE went from concept to reality, the Army Aviation Warfighting Center at Fort Rucker, Alabama, designed and implemented specialized training to address full-spectrum operations.

First, the school produced several references to provide a basis for the BAE's operations, including Training Circular 1-400 Brigade Aviation Element (BAE) Handbook; a BAE reference library; an Army Knowledge Online (AKO) knowledge collaboration center; and many SME points of contact. The Aviation Warfighting Center also provided mobile training teams (MTTs) to help BAEs, (as well as other AC^2 fires and maneuver planners) to execute their duties. Based on the complexity of the tasks at hand, the MTT addresses critical training tasks to aid BAEs in performing their duties.

The MTT provides immediate help to the BCT staff and the BAE and is the interim training solution until training can be infused into professional military education (PME) at the officer, warrant officer and NCO levels. The MTT provides detailed instruction in the subjects listed in Figure 4 on Page 38.

BAE and Aviation LNO. The CAB and its subordinate battalions continue to have liaison cells embedded in them. These organizations are still vital in the successful execution of aviation missions. The BAE functions don't replace those of the liaison cells. The aviation commander always will be responsible for providing liaison to the supported unit. The BAE even has a liaison from the CAB to help focus its efforts.

Once a relationship is established with a BCT, the aviation unit must develop a workable liaison plan for aviation planning and execution. Even with modularity, brigade commanders and missions may be very different based on the COE. Therefore, the expectations of aviation in the BCT must be agreed upon, so the planning meets the timely needs of the ground commander while retaining flexibility for the aviation TF commander.

The BAE focuses on the tactical scheme of maneuver, taking into consideration the aviation TF's operational tempo (OPTEMPO), crew availability and potential to build combat power. If mission planning is not collaborative, the BCT will not gain the benefits intended with the creation of the BAE.

- Plan and integrate aviation operations with the ground scheme of maneuver.
- Integrate airspace command and control (AC^2) in the brigade combat team (BCT) area of responsibility (AOR).
- Plan and request airspace control measures (ACMs).
- Coordinate and synchronize aviation operations with the combat aviation brigade (CAB) and higher headquarters.
- Coordinate and deconflict unmanned aerial systems (UAS) operations.

Figure 2: The BAE Mission-Essential Task List (METL)

- Close Combat Attacks
- Interdiction Attacks
- Joint Air Attack Team (JAAT) Operations
- Air Assault Operations
- Reconnaissance and Security Operations
- UAS Operations
- AC^2
- Routine Air Mission Requests
- Air Medical Evacuation (MEDEVAC) Operations
- Command and Control UH-60 Operations
- Special Operations Forces (SOF) Aviation Employment

Figure 3: BAE Mission Planning

Soldiers of B Company, 2nd Battalion, 504th Parachute Infantry Regiment (PIR) (B/2-504 PIR), *White Devils*, out of Kandahar Army Airfield, Afghanistan, prepare to move out and conduct searches for suspected Taliban and weapon caches in the Bahgran Valley during Operation Viper on 19 February 2003. B Company was attached to the 1st Brigade, 82nd Airborne Division. (Photo by SPC Preston Cheeks)

Equipment. To take full advantage of the BAE's potential, critical equipment is required. The BAE must be able to link into the AC^2 network for airspace planning and deconfliction and the air-ground radios for line-of-sight and beyond-line-of-sight communications. It also must have the ability to conduct automated aviation mission planning.

The Tactical Airspace Integration System (TAIS), which is part of the Army Battle Command System (ABCS), allows the BAE to affect AC^2 operations. Before transformation, TAIS only existed in the air traffic service battalions and companies as well as in some division headquarters and the Stryker BCT's (SBCT's) ADAM cells. TAIS allows the BAE to do the tasks listed in Figure 5.

Currently, the BAE and BCT's ADAM cell share tactical communications equipment, to include the Single-Channel Ground and Airborne Radio System (SINCGARS), the air and missile defense workstation (AMDWS), air defense systems integrator (ADSI) workstation and TAIS workstation. This conglomeration of systems conveniently was packaged in the TSQ-282 ADAM vehicle. Due to the rapid fielding of the BAE, this equipment sharing was necessary to allow the BAE to operate.

During our operations, we must consider the synergy that is gained by the collocation of elements that clear fires for the scheme of maneuver. In the future, additional systems are being considered for use, including the VRC-100 Automatic Link Establishment (ALE) high-frequency (HF) radio, additional SINCGARS radios, Tactical Satellite (TACSAT) 117F, GRC-240 UHF/VHF radios, and an Iridium satellite telephone.

- Air-Ground Integration
- AC^2
- Joint Airspace
- Targeting
- Full Spectrum of Aviation Missions
- Tactical Airspace Integration System (TAIS) Operator, Mission Planning and Communications Systems Instruction

Figure 4: Mobile Training Teams (MTTs) for BAEs

- Synchronize, visualize and deconflict airspace.
- Request, process and display ACMs from the airspace control order (ACO).
- Link to joint airspace management processes at the battlefield coordination detachment (BCD).
- Interface with other Army and joint battle command systems.
- Display air tracks, if appropriate feeds are available.

Figure 5: BAE TAIS Tasks

In time, the BAE's capabilities will increase as equipment becomes available. Aviation mission-planning tools also are necessary for the BAE to plan and deconflict both manned and unmanned aviation operations. To enable the BAE to accomplish these tasks, the Aviation Mission Planning System (AMPS) (part of ABCS) is being given to BAEs to facilitate their communications digitally. The planning products from the aviation TFs as well as subordinate UAS units will be processed and passed to higher AC^2 authorities via the AMPS for approval and synchronization.

To allow the BAE to move about the battlefield, the BAE will have two High-Mobility Multipurpose Wheeled Vehicles (HMMWVs); currently it has one. The two vehicles will allow elements of the BAE to operate independently for liaison, planning and tactical operations center (TOC) operations.

All of these equipment issues are part of the normal growing pains of rapidly fielded organizations. As doctrine and tactics, techniques and procedures (TTPs) mature, the BAE's equipment needs will be better defined and met to allow the BCT to exploit the BAE's capability fully.

As the Army completes transformation, BAEs will reside in every infantry BCT (IBCT) and heavy BCT (HBCT) in the Army, both active and Reserve Component. The BAEs of the 3rd Infantry Division were the first to deploy for OIF in 2005 and, like others, have since returned to the area of operations (AO). These teams represent the first of many to bring aviation expertise to the BCTs during current operations in Iraq and Afghanistan and have enabled ground commanders' operations. They also have played a critical role in the development and success of the BAE concept and will help to further refine its future on the battlefield.

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ADA Transformation and ARFORGEN —Eagles versus Ducks

By Major Alan A. Wiernicki, ADA

Ready for what? Resourced for what?" was the theme of the first Army Force Generation (ARFORGEN) briefing I attended in November of 2005. The central idea was that the Army was struggling to meet the force requirements for a protracted war while simultaneously restructuring forces for future missions and Army growth.

Therefore the Army and, further, the Air Defense Artillery (ADA) would have to "shift the paradigm" radically and abandon the decades-old goal of maintaining all units in the training and readiness "Band of Excellence," as outlined in *Field Manual (FM) 25-100 Training the Force*. Rather, units would receive training and resources prioritized by each unit's position in the "force pools" of the ARFORGEN model and the mission it was preparing to execute.

ARFORGEN is a strategy to provide a continuous flow of Army trained and ready forces for full-spectrum operations. Units move sequentially through three force pools: Reset, Ready Force and Available Force. When a unit redeploys, it becomes part of the Reset Force Pool and the ARFORGEN cycle begins again.

In ARFORGEN, instead of some units being "Eagles" (in the Band of Excellence) while others remained "Ducks" (not in the Band of Excellence), every unit rotates on the ARFORGEN "conveyor" and has its turn at being an Eagle. (The terms "Eagles" and Ducks" come from a September 2005 briefing on ARFORGEN by then Lieutenant General Dan K. McNeil when he was the Commanding General of Forces Command, or FORSCOM.)

ARFORGEN made sense for the Army's brigade combat teams (BCTs) as they take turns repeatedly deploying to and from Iraq and Afghanistan, but the model did not seem to apply to ADA's much smaller unit of modularity, the battalion. In particular, the strategically focused, low-density Patriot forces were not like the rest of the Army—so why force this model on ADA?

Only 18 months after first seeing the ARFORGEN slides, it became apparent that ARFORGEN had been forced on ADA—not by our senior leaders, but out of necessity. We have entered into a period of change, perhaps like no other in the history of the ADA, that forces a daily internal reprioritization to train, resource and deploy combat-ready forces while simultaneously transforming the branch; the Fort Bliss, Texas, installation; and our Army.

Determining Resource Priorities. Without the ARFORGEN model and its "Patch Chart" showing ADA unit rotations through the various ARFORGEN force pools and transformation events, it is difficult to imagine how so many high-priority missions could be accomplished simultaneously by so few units and Soldiers.

The 11th ADA Brigade at Fort Bliss illustrates the challenges. From September to November 2006, the 11th Brigade's three Patriot battalions—all at different strengths in the ARFORGEN Ready Force Pool—received high-priority missions that tested the initial ADA ARFORGEN model. 1st Battalion, 44th ADA (1-44 ADA) was culminating six months of fielding and testing for the Post-Deployment Build-6 (PDB-6) software modernization program. PDB-6 improves Patriot's ability to classify, discriminate and identify targets and corrects deficiencies determined in Operation Iraqi Freedom (OIF).

At the same time, 5-52 ADA had just completed a mission rehearsal exercise (MRE) and was preparing to deploy four firing batteries for a relief-in-place with units from the 35th ADA Brigade in Korea, and 3-43 ADA was preparing Soldiers and equipment to deploy to the Central Command (CENTCOM) theater of operations.

For the brigade, the question was, "Which battalion should receive priority for critical resources, to include personnel, funding and exemption from other missions and taskings?" Clearly, deploying units should have priority, but in this case, which deploying unit? And could a priority of resources be granted at the expense of, arguably, the branch's most important test since redeploying units from OIF—the PDB-6 test?

The problem was complicated by the fact that none of the battalions could afford to be a Duck. The missions at hand required all three to soar like Eagles.

As it turned out, 1-44 ADA executed the test, 5-52 ADA completed the relief-in-place in Korea and 3-43 ADA's equipment and Soldiers deployed to CENTCOM. By all accounts, the missions were successful. But success was achieved only by prioritizing and reprioritizing subordinate units' missions and resources *daily*.

This, of course, is the job of the commanders and their staffs. But the transformation of the ADA branch and Fort Bliss collided daily with the mission, training and resource demands of the ARFORGEN model in a way few, if any, leaders anticipated.

Fort Bliss Mission Demands. During that same three-month period, Fort Bliss was busy. As one of the Army's premier power generation platforms, the post successively deployed from its rail facility 1-1 ADA to Japan, 3-43 ADA to CENTCOM and the 1st Cavalry Division's 4th BCT's equipment to Fort Carson, Colorado, and Fort Hood, Texas.

The "muscle" required to execute these near-simultaneous deployments came from within Fort Bliss, and again, deployments understandably took priority over other missions. Coordinating the support to execute the three deployments required the three Forces Command (FORSCOM) ADA brigades on Fort Bliss to adjust their training calendars continuously.

We have entered into a period of change, perhaps like no other in the history of the ADA…

Meanwhile, Fort Bliss and the city of El Paso were, and still are, working to grow infrastructure for the arrival of more than 50,000 Soldiers and their families from Germany and other locations in the next several years. While the influx is a major boon for the El Paso-Fort Bliss community, Fort Bliss units must synchronize multiple near-term priorities with infrastructure developments and improvements to reach the longer term desired end state. The result is a continuous negotiation between inbound units and tenant organizations and the inevitable need for some units to become part-time transients.

The pace of units negotiating the trade of barracks, motor pools and administrative facilities would make "Wall Street floor traders" proud. But within the context of this analogy, it is our long-range predictability that is being traded against the "day's hottest stocks."

To complicate the existing challenges, several more units were notified they would deploy on timelines varying from only hours to several weeks apart. Fort Bliss units, once again, conducted mission analyses and realigned their priorities at all levels from the battery to the post.

…all ADA Soldiers and leaders [must] maintain the mindset of Eagles, not Ducks.

Air and Missile Defense (AMD) Patch Chart. This prioritization effort was led by Fort Bliss' 32nd Army AMD Command (AAMDC) at the February 2007 AMD Synchronization Conference. As the branch's senior leaders worked to align units with missions from the current fiscal year to 2009 and beyond, the AMD Patch Chart was born—a synchronization matrix and a roadmap for branch transformation. The chart simultaneously assigns missions to battalions and organizes the future "base clusters" of ADA units at Fort Bliss; Fort Bragg, North Carolina; Fort Sill, Oklahoma; and Fort Hood.

Some key criticisms of the chart are that because each mission depends on the others, the model is too inflexible—the plan is based on uncertain future decisions. For example, a significant change to only one mission (deployment tour length or shift in a force modernization schedule or base realignment event) could send the whole plan into an unrecoverable "tailspin." This would call for a complete redesign and introduce new challenges.

Despite the chart's flaws it is hard to imagine simultaneously committing to and tracking so many missions involving so much movement without it.

ADA Reorganization. ADA is undergoing its largest reorganization since the mid-1990s. This time, battalions and brigades are moving away from Fort Bliss to build the base clusters that are so critical to the success of the ADA ARFORGEN model.

To illustrate this reorganization, we can look again at the 11th Brigade over another three-month period: April to June 2007. By June, the brigade executed three successive battalion transfers of authority (TOAs). In April, 1-44 ADA was transferred from the 11th Brigade to the 31st ADA Brigade. The battalion will train for its mission in Korea, deploy in November and redeploy to Fort Hood a year later.

In May, 2-43 ADA was transferred from the 108th ADA Brigade to the 11th Brigade. That battalion will deploy to the CENTCOM theater. Meanwhile, 3-43 ADA will transfer from the 11th Brigade to the 31st Brigade at Fort Sill. In June, 13 years after leaving Fort Bliss, 1-43 ADA transferred from the 35th Brigade in Korea back to the 11th Brigade at Fort Bliss.

Executing the transformation plan isn't easy. Fort Bliss must manage space, FORSCOM units must manage readiness and Soldiers must adapt to all of it.

Our nation is at war, and the Army is growing, realigning and transforming to meet the changing mission requirements. The situation is no different for the ADA and Fort Bliss. We execute multiple missions simultaneously only using our modified table of organization and equipment (MTOE) personnel.

We only can accomplish so many missions at the same time by remaining flexible and implementing management tools, such as the ARFORGEN model and Patch Chart. However imperfect the model and chart are, they, indeed, are necessary during this critical period of war and transformation.

We undoubtedly will encounter constant turmoil, unpredictability and frustrations in the future—demanding that all ADA Soldiers and leaders maintain the mindset of Eagles, not Ducks.

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BCT FSCOORD in Iraq —Integration Operations

By Major Christopher W. Wendland, FA

Currently, I'm in east Baghdad, Iraq, as the fire support coordinator (FSCOORD) for the 2nd Infantry Brigade Combat Team (IBCT) (*Strike*), 2nd Infantry Division. With the brigade leadership's support, we've embraced the effects concept completely and have integrated effects into every mission. My brigade executive officer is the driving force behind this effort and has integrated effects successfully in our day-to-day operations.

I've been with the brigade for more than a year and was the first member in the BCT effects cell when we transformed from a heavy brigade to an IBCT. I've witnessed the integration of civil-military operations (CMO), information operations (IO) and public affairs (PA) into all IBCT operations and the evolution of effects targeting by lines of operations (LOOs).

As the IBCT FSCOORD, I oversee the traditional fire support role of the brigade; we've conducted more than 30 counterfire missions in east Baghdad and submitted many air support requests (ASRs) via our Air Force tactical air control party (TACP). But my role as the FSCOORD "straddles the fence" between the integration of lethal fires and nonlethal effects.

The "effects cell," as our IBCT commander calls it, is robust with personnel and responsibilities. We are the long-term planners for the brigade (the core elements of the effects cell deployed early as embeds with the S3 planner) and constantly define and refine the metrics we devised to determine our LOOs' success, ultimately keeping the brigade on course to achieve the commander's vision and end state.

Day-to-Day Integration. Each morning the brigade conducts an Operations, Intelligence and Effects Briefing. The briefing covers all previous and future actions for a 24-hour period.

In each operation and intelligence event, effects play a role. As the FSCOORD, I capture all the events for the day and report them at the morning briefing. I brief using the format in Figure 1 on Page 42, looking at atmospherics and open-source intelligence (OSINT) to see what impact the brigade's effects are having in our area of operations (AO). An abbreviated version of the briefing is presented each night at the tactical operations center (TOC) shift change.

The briefing keeps me aware of current operations and ensures all the effects cell personnel are synchronized not only with each other, but also with brigade operations. As one of the long-range planners for the brigade, I quickly can see if our efforts are accomplishing the intent of higher headquarters and the brigade commander's vision.

Weekly Integration. The brigade commander hosts a commanders' conference call with all military agencies operating in the AO. It does not matter if they are under the operational control (OPCON) or tactical control of the brigade—if they are operating in the *Strike* AO, they join in the semi-weekly conference calls.

SGT Anselmo Del-La-Cruz of A Battery, 2nd Battalion, 17th Field Artillery (A/2-17 FA), 2nd Infantry Brigade Combat Team, 2nd Infantry Division, pulls security during a dismounted patrol in the Zafaraniyah area of east Baghdad, Iraq, on 26 November 2006. (Photo by SPC Davis Pridgen)

As the FSCOORD, I develop the talking points geared to the LOOs for each weekly meeting. The *Strike* brigade uses four LOOs: Security, Transition, Economics/Governance and Communications. I identify one or two questions in each LOO to focus the commander's discussion. The questions identify whether or not all elements in the AO are consistent with the commander's vision.

At the conclusion of all the battalion briefings, I conduct an "effects roll-up" where I identify pending operations requiring specific help for exploitation, coordination with the division staff or special engagements with local nationals for quick resolution. This is a way to ensure battalion commanders are tracking all issues within their AOs, not just security issues.

Targeting Meeting. This meeting is conducted once each week and is the cornerstone of brigade operations. The battalions prepare slides with their top three priorities by LOO. The slides are briefed by the battalion fire support officer (FSO), and the meeting agenda is run by LOOs vice by battalions.

All security issues are heard first, and then we progress to the other LOOs. The issues derived are prioritized by the FSCOORD, S3 and S2 and disseminated by fragmentary order (FRAGO) to the battalions.

The effects cell plays a large part in this meeting because effects have a role in each of the LOOs, and the effects cell personnel ensure all targets are resourced and nested with both the commander's vision and higher headquarters. See my article "BCT FSCOORD IN OIF: Targeting by LOOs" in the March-April *Field Artillery.*

Contingency and Current Operations

- Press Releases/Public Affairs Office (PAO)
- Psychological Operations (PSYOP)
- Information Operations (IO)/Partnership Story Boards
- Iraqi Advisory Task Force (IQATF)
- Civil-Military Operations (CMO) Projects
- Claims/Condolence Payouts
- Open-Source Intelligence (OSINT)

Figure 1: Effects Daily Briefing Agenda

Mission Checklist. To ensure each mission successfully integrates all effects assets, the *Strike* brigade uses the effects checklist in Figure 2. The checklist is designed as a synchronization tool to account for IO, psychological operations (PSYOP), CMO, Combat Camera and legal and PA support. We've used the checklist now for more than 50 different missions, and, with each use, we refine it slightly for future operations.

While on patrol, a Soldier from A/2-17 FA hands out packages of basic necessities to children in east Baghdad on 24 November 2006. (Photo by SSG Bronco Suzuki)

During a recent operation involving three brigades, we used the checklist to identify each of the brigade's roles and responsibilities for the checklist items. This prevented redundancy of effort and ensured each brigade clearly understood its roles and responsibilities. We determined the roles at a premission planning conference, and after briefing the commander, we turned the checklist items into a FRAGO ready for future execution.

The three brigades in the MultiNational Division, Baghdad (MND-B) have adopted the checklist, and the checklist seems to be gaining traction elsewhere.

Consequence Management. Another effects consideration is consequence management. Units operating within the *Strike* brigade's AO routinely ask the effects cell to provide assessments of operations for consequence management. To standardize this process, we conduct deliberate assessment operations after every raid or counterfire operation within the *Strike* AO.

Immediately after the event, a subordinate unit receives a package of information identifying the location of the raid and events on the objective. We also provide the unit information on local projects in the area, PSYOP handbills and Tips-Line cards as well as claims information to help civilians who were injured or had infrastructure damage in or near the operation and (or) event.

The unit engages the locals in the area of the operation or intelligence event to assess the impact of the effects. The unit also determines second or third order consequences of the effects, both additional positive and unintended negative effects.

Monthly Events. Once a month, the effects cell consolidates data to see if targets identified in the weekly targeting meeting, issues raised during the semi-weekly commanders' conference call and all other events in the *Strike* AO are making progress in line with the commander's vision and higher headquarters' intent. After arriving in Iraq, we developed a standardized formula of simple metrics to assess success.

We evaluate each desired effect in every operation or event contributing to the LOOs and use a formula to rate whether or not the operation or event achieved its overall intent. Although the total number determined for all the effects per LOO represents just an aggregate "rating," the ratings for the effects highlight where the IBCT is achieving effects or needs to focus more to achieve the desired effects. The metrics simplify a complex assessment process.

MND-B cannot identify metrics that are workable for their entire AO. The brigade is the highest level that can define "relevant" metrics.

The effects cell reviews the metrics based on input from the battalions and

Before	During	After
IO • Talking Points to Battalions for their Spheres of Influence (SOI) • Combat Camera Involvement • PSYOP Team Involvement • Additional PSYOP Products to Battalions • Good News Storyboard Preparations • Prepared/Informed all of SOI Call Plan • Developed/Published Operations Security (OPSEC) Plan **PAO** • Unit PA Representative Involvement • Media Talking Points • Press Release Prepared • Media Embeds • Foreign Media **CMO** • Civil Affairs (CA) Unit Involvement • Additional CA Needed? • Locks on Hand; Pre-Contract in Place?* • Projects Reviewed for Possible Delay? **Legal** • Claims and Condolence Plan • Claims Cards On-hand and Distributed	**IO** • SOI of East Baghdad Fire Chief (Phone) • SOI of East Baghdad Police Chief (Phone) • SOI with Battalion-Level District Councils (Phone) • Leverage G7 IO Mass Media • IQATF Atmospherics • Tips Line Monitored for Atmospherics • Pictures/Video/Unmanned Aerial System (UAS) Video on Website **PAO** • Media Monitored for OSINT • Press Release Modified, as Required **CMO** • Embedded Provisional Reconstruction Team/Corps of Engineers Personnel Informed • Contractor On Call for Consequence Management **Daily Effects Update** • Unit Roll-Ups of Claims and Operational Summaries • Consolidated Roll-Up to All Units	**IO** • Partnership Storyboard to G7 • PSYOP Team Report • Division G7 Mass Media Leveraged • Foreign News Story Submitted • IQATF Atmospherics • Photos on Website • Tips Line Reviewed for Atmospherics • Human Intelligence (HUMINT) Reports Reviewed for Atmospherics **PAO** • Press Release and Photos Reviewed for OPSEC • Press Release Submitted to Division PAO • Embed Media Stories Retrieved by OSINT **CMO** • CA Engagement with Local Government Leaders • Consequence Management Packs (As Required) • Commander's Emergency Response Program (CERP) Clean-Up Project Submitted (As Required) **Legal** • Claims and Condolence Payments Completed **Overall** • Final Consolidated Roll-Up for the Operation • Metrics Reviewed to Determine Operation's Success

Division Coordination with
- G7 Script for Mass Media Support
- G7 for Potential Good News Storyboard
- Division PAO for Guidance and Media Talking Points Approval
- Division PAO to Identify Media Embeds in AO (None)
- Division PAO to Ensure Awareness of Continuous Operations Details for Media Questions
- Division G9 to Identify Possible Post-Event Support

Fires
- Plan Rehearsed and Understood
- Joint Terminal Attack Controller (JTAC)/Joint Fires Observer (JFO) Locations
- Coordination with Division Fires
- Indirect Fire Support: Artillery, Mortar and Guided Multiple-Launch Rocket System (GMLRS) Unitary
- Attack Aviation Support
- Close Air Support

*** Broken locks are replaced after Soldiers enter secured unoccupied garages/homes. An Iraqi contractor is on-call to replace windows/doors broken during clearance operations.**

Figure 2: Effects Checklist for Each Operation

decides if a metric needs to be refined or if a metric is obsolete. Ultimately, the metrics are easy enough to determine if all units track along the LOOs.

Our actual metrics are classified and cannot be included in this article. Units interested in the metrics can contact me via secure Internet protocol routing (SIPR) at christopher.wendland@us.army.smil, and I'll forward the metrics for consideration.

Overall, effects are now a vital entity of *Strike* brigade operations. Our Soldiers "talk" effects everyday, and our commanders have effects involved in every phase of every operation and assessment and planning briefing. Thanks to the support of leaders in the 2nd IBCT, the *Strike* brigade, no doubt, will continue to be successful during the rest of its Operation Iraqi Freedom (OIF) deployment.

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3-43 ADA Deploying: "We-Fight-Tonight" Mentality

By Lieutenant Colonel Brian P. Dunn, ADA

One of the greatest challenges of being a strategic high-demand, low-density unit is anticipating the next deployment. With a nation at war, predictability is the exception, not the norm—even with the implementation of Army Force Generation (ARFORGEN). In this environment, leaders must be flexible and proactive, maintaining a We-Fight-Tonight mentality.

This article is about the recent multiple deployments of the 3rd Battalion, 43rd Air Defense Artillery (3-43 ADA), 11th ADA Brigade, Fort Bliss, Texas, in today's dynamic contemporary operating environment (COE).

In November 2005, 3-43 ADA executed a permanent change-of-station (PCS) rotation of its four Patriot batteries from Fort Bliss to the 35th ADA Brigade in Korea. In return, the battalion received four Patriot batteries that had spent a year in Korea and began the Reset Phase of the ARFORGEN model in January 2006. Little did we know that the battalion would receive an order to deploy to the Central Command (CENTCOM) area of responsibility (AOR) in just nine months.

Resetting. At the initiation of the ARFORGEN Reset Phase, our focus was to rebuild the new Patriot batteries from Korea and conduct individual and collective training in preparation to assume the Ready Phase of ARFORGEN at an undetermined date. As is the case throughout the Army, resources for the battalion in the Reset Phase are limited, and the battalion would spend three of the next nine months in the installation support Red Cycle.

Regardless, the faster the battalion certified crews, qualified Soldiers on weapons, conducted convoy live-fire training and completed warrior task training, the more capable it would be to respond to any contingency. Training these batteries, crews and Soldiers in the most deliberate and expeditious manner ensures the battalion's readiness and builds in the flexibility needed to respond to a typical Patriot contingency deployment.

Such training was much easier to plan than to execute.

Training and Readiness Strategy. Before receiving the new units from Korea, the battalion developed a strategy with definitive training gates and exit criteria to enable the battalion to transition out of Reset in 180 days.

First, we realigned personnel throughout the battalion to ensure battle-rostered crews had longevity together and all units were balanced equally for manning and NCO leadership. This naturally caused friction as personnel were swapped from one battery to another, but it was necessary to get the crews right before initiating any training.

We then began an aggressive training regime. We held weekly Air Defense gunnery training and tactical seminars as well as individual warrior task training. This resulted in all Soldiers' certifying on their individual weapons; common task training (CTT); and chemical, biological, radiological and nuclear (CBRN) tasks within the first 45 days.

By the 90-day mark, the four Patriot batteries had certified at the Gunnery Table VIII and completed the majority of their warrior task training. At the 120-day mark, the battalion had completed a convoy live-fire exercise and certified Air Defense crews on Table XII. Included in this training plan were monthly emergency deployment readiness exercises (EDREs) and enhanced deep maintenance cycles.

The last phase of the 180-day Reset training plan included a second round of training on the weapons ranges and a brigade-level certification of our deployability and combat readiness. By the end of July 2006, the battalion was prepared to deploy.

Deploying. In September, the battalion was notified it had less than 24 hours to upload its modified table of organization and equipment (MTOE) equipment on rail cars for a deployment to Southwest Asia. With less than 11 months at Fort Bliss, the battalion was to be the first Patriot battalion deployed to the CENTCOM AOR since Operation Iraqi Freedom (OIF) began.

Key to the success of the battalion's deployment was the combat focus of the commanders, first sergeants and battalion staff. The battalion's weekly training meetings and the command and staff calls became readiness reviews similar to a detailed unit status report (USR) briefing, including USR tracking matrices, quarterly training briefing matrices and battalion deployment standing operating procedures (SOPs). Concurrently, unit commanders and first sergeants tracked personnel deployment readiness down to the individual Soldier, training readiness by crews, supply readiness by hand receipts and equipment readiness by bumper numbers.

As painful as these meetings were, they helped focus the battalion commander and staff on efforts contributing to warfighting readiness rather than on distracters. A Patriot contingency deployment typically is short-notice and, therefore, a We-Fight-Tonight mentality had to be the battalion mantra. This mentality became a reality as the battalion completed all motorpool and rail loading operations in less than 72 hours.

Once the battalion's equipment left the port, it was critical to establish a solid footprint in the AOR. This consisted of the battalion S3 and command sergeant major flying over with a small team of S1, S4, S6 and maintenance personnel to begin coordinating for housing the battalion's equipment and personnel.

The initial deployment order limited the number of personnel in the first "package" to arrive in theater. In this package, we sent only enough maintainers and Air Defense crews to provide limited theater air and missile defense (TAMD) for selected assets. These personnel conducted port operations, downloading more than 350 pieces of equipment and 30 containers, and moved the equipment out of the port within 48 hours. Immediately, we began emplacing our Patriot batteries. (A subsequent order allowed us to add 100 personnel to support our tactical operations and further develop the support base of our maintainers.)

At the same time, we had worked around the clock to establish the communications architecture to execute the "joint kill chain" and the ability to launch a Patriot Advanced Capabilities-3 (PAC-3) remotely. The battalion assumed the highest state of alert shortly after emplacing the batteries. All had been accomplished in exactly 12 months after the first group of Soldiers arrived from Korea.

Back at Fort Bliss, the executive officer (XO) and operations sergeant major integrated new Soldiers into the battalion, closed out barracks, deployed follow-on Soldiers and cleared our remaining motorpool "footprint" in support of the Base Realignment and Closure (BRAC) Commission's directives.

Finally, a third order deployed the remaining personnel in the battalion to provide TAMD in support of the Doha Asian Games, a soccer competition in Qatar, which is the second largest sporting event in the world.

Redeploying and "The Surge." In December 2006, we received an order to redeploy the majority of the battalion back to Fort Bliss while simultaneously maintaining an enduring TAMD mission in CENTCOM. By the end of December, the battalion was executing its original TAMD mission in theater with less than one-third of its force structure.

On 10 January 2007, the President gave his Surge speech that said he was increasing ground troops in Iraq and deploying Patriots to the region. The following day, the battalion received an order to deploy back into the AOR for an indefinite period.

Our next order required the battalion to split forces and command and control in two different countries. We again tailored our battle rosters to ensure we could split the headquarters and headquarters battery (HHB) and maintenance company to provide like capabilities in both countries and support the firing units. By having to replicate capabilities in two countries, we generated an operational needs statement (ONS) for another information and coordination central (ICC), tactical command system (TCS) and the ancillary equipment to build another battalion tactical operations center (TOC).

We began moving two batteries' worth of equipment plus the added slice of the headquarters and maintenance equipment by leveraging Army watercraft that routinely operated in the AOR conducting intra-theater movements. In two weeks, the battalion moved more than 119 pieces of equipment and 11 containers using Logistics Support Vehicles and Utility Landing Craft. With the arrival of the second ICC and subsequent missile upload, the battalion was prepared for operations in two countries in the CENTCOM AOR.

Once all missiles were uploaded and radar frequencies were obtained, the battalion established the rules of engagement (ROE) for Patriot within the AOR via the Air Force's special instructions (SPINS). The battalion also created sector Air Defense commands (SADCs) for the two countries.

Key leaders of the battalion worked closely with the senior Air Defense officer (SADO) in the combined air operations center (CAOC) to publish the SPINS. They also conducted daily exercises with the control and reporting center (CRC) to establish SADC for the air defense of the Arabian Gulf. The battalion maintained the highest operational readiness while providing CENTCOM a unique TAMD.

The Patriot force must be able to deploy with little or no notice, regardless of what ARFORGEN cycle the force is in. The missile threat continues to grow across the globe, and Patriot protection for both US and allied interests in is demand. Leaders must use their time and resources wisely, remain flexible to lead Soldiers and be focused on combat readiness to be relevant in such an unpredictable environment. The bottom line is the Patriot force must maintain a We-Fight-Tonight mentality.

Lieutenant Colonel Brian P. Dunn, Air Defense Artillery (ADA), commands 3rd Battalion, 43rd ADA (3-43 ADA), 11th ADA Brigade, at Fort Bliss, Texas, and is deployed to the Central Command (CENTCOM) area of responsibility (AOR). In his previous assignment, he was a Joint Education and Training Planner in the J7 of the Joint Staff at the Pentagon. He served as the S3 for the 11th ADA Brigade during Operation Iraqi Freedom (OIF) I. He also served as an ADA Force Development Officer for the Army's G3 at the Pentagon. He commanded two batteries: D Battery, 5-5 ADA in the 2nd Infantry Division in Korea and B Battery, 4-6 ADA, 6th ADA Brigade, part of the ADA School at Fort Bliss.

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1LT Joan Hollein, a fire control platoon leader with C Battery, 2nd Battalion, 43rd Air Defense Artillery (ADA), 35th ADA Brigade, from Fort Bliss, Texas, surveys the Patriot launcher coverage during exercise Joint Red Flag 2005 on the Nevada Test and Training Range, Nellis AFB. (Photo by Amn Jeffrey Hall, USAF)

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