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Editor's Note: The units described in the photo on Page 2 of the October-December 2008 were switched inadvertently. The Soldiers of C/3-321 FA are shown on the left side, while A/4-319 FA Regiment Soldiers are shown on the right side.

Front Cover: The *Ironhorse Battalion*, 6th Battalion, 52nd ADA Brigade (6-52 ADA), fires a Patriot during a live fire exercise held 13 April 2007, at White Sands Missile Range, New Mexico. Five Patriot missiles were fired; all five were successful. After three years at Fort Sill, the 6-52 ADA is moving to South Korea, where it will be stationed at Suwan and Osan Air Bases.

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PURPOSE: Founded in 2007, *Fires* serves as a forum for the professional discussions of US Army and Marine Field Artillery (RA) 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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Fires MURICE

Looking Back— Moving Forward

By MG Howard B. Bromberg, Chief of ADA

he Air Defense Artillery (ADA) Soldiers of past and present have plotted the course of ADA—from the Cold War to watching the skies over Korea and to keeping our troops safe on the battlefields of the Middle East. Your efforts have saved lives and made our world a safer place.

It is a great time to serve as an ADA Soldier, and I am honored to have the privilege of serving as the Chief and Commandant of such an illustrious Branch. I am very proud of what our Branch accomplished during the last year and is preparing to accomplish throughout the current year. Your contributions are enormously important as we continue to provide our Army

and your families have accomplished. Air Defenders always have been flexible, comfortable with decentralized execution and possessed with tremendous initiative. These attributes serve our Army and our Branch very well today and will continue to serve the Army well into the future.

The Move. Final preparations for the move of the US Army Air Defense Artillery School (USAADASCH) from Fort Bliss, Texas, to Fort Sill, Oklahoma, seemed to take center stage in 2008. In short, preparations are complete, and we are ready for execution. Although ADA will leave part of our 40-year legacy at Fort Bliss, plans for moving

courses, instructors, students and equipment are complete and have been rehearsed. Thousands of museum memorabilia pieces are catalogued, packaged and ready to

go. Our "Torch Party" and advanced echelon from USAADASCH has begun the move to Fort Sill and is assimilating into an integral part of the Fires Center of Excellence (CoE). By the summer of 2009, the main body will follow and relocate to Oklahoma.

The CSM and I can report, if you are going to Fort Sill, you are going to be very impressed with what you find there. The local area around Fort Sill is growing quickly, and it will be an excellent location for ADA's new home. The community outside the gates, Lawton, is the third largest city in Oklahoma and is growing while maintaining the country charm of small town living—where your new neighbors soon become your best friends. There is a lot to do, it is a beautiful area, and the community has excellent schools, job opportunities



and an affordable cost of living. I am confidant you will find it a great place to call home and a wonderful place to bring your family.

The facilities under construction for USAADASCH are second to none. Thanks to the hard work and diligence of the Fort Sill leadership, our new buildings and facilities are on track and look magnificent. The Air Defense School will occupy the most modern and stateof-the-art training facilities. The three general instruction facilities will offer the most modern classrooms in Army history. We will be able to conduct training in ways we have never been able to do at Fort Bliss. For example, all classrooms will be networked, allowing instructors to present instruction or command information simultaneously to all classrooms. However, all of the facility improvements are only a small part of the changes and improvements that our Branch is about to undergo.

Transition. We are preparing to field three, potentially four weapons systems within the next four to seven years, beginning a new era of unprecedented fires capabilities. We never have fielded three weapon systems simultaneously in the Branch, nor do I believe has any branch in the Army. If you consider the depth of development, testing and training each system requires, this fielding is unbelievably fast. And our innovation is tied into what we learn from Air Defenders on the ground. Your lessons learned are *key* to

Reuniting the Artillery Branches—not as one, but rather geographically, so we can train side by side—will increase our effectiveness to the force. Establishing the Fires CoE will bring greater synergy to the Branches.

and nation with the best air and missile defense (AMD) capabilities.

ADA is on the verge of dramatic change not seen since the early 1940s when the US Army introduced missiles and radars to the anti-aircraft mission. Undertaking change of this magnitude would be a tremendous accomplishment by itself, but doing it while we continue to support the War on Terrorism (WOT) and execute missile defense missions around the globe, is unprecedented.

Command Sergeant Major (CSM) Robert S. Rodgers and I have travelled to almost every ADA unit this past year, and we continue to hear nothing but accolades about ADA accomplishments from senior Army leaders. We are tremendously proud of our Soldiers, NCOs and officers. On behalf of every senior leader in ADA—thank you for what you



Soldiers from Launcher Platoon, C Battery, 6th Battalion, 52nd Air Defense Artillery (C/6-52 ADA), run down range after hearing the horn signaling the start of a drill during a mission rehearsal exercise on 10 February, Fort Sill, Oklahoma. (Photo by SGT Scott E. Smith, 6-52 ADA)

developing superior fires capabilities and are essential to establishing the Fires CoE at Fort Sill.

Of course, there are some growing pains inherent to the transition, but we are moving on to better times. Reuniting the Artillery Branches—not as one, but rather geographically, so we can train side by side—will increase our effectiveness to the force. Establishing the Fires CoE will bring greater synergy to the Branches. Together, they will attain better airspace management and do an even better job of defending our forces and going on the offensive. We must align our defensive and offensive fires so we can continue to defeat all adversaries.

One challenge we see approaching is the need for cultural change within the Branches, and the leaders of ADA and Field Artillery (FA) are coordinating very closely to find better ways of working together. We have to overcome these challenges by learning about the missions, capabilities and limitations of both Branches. We need to explore ways we can work together to capitalize on our strengths and do it in an atmosphere of respect for each other's contributions.

I know Air Defenders can adapt to those cultural changes because in our 40 years as a branch we already have had to adapt to meet the changing threat. As a branch, we are moving fast, bringing technologies to the battlefield far sooner than initially planned.

Your hard work, dedication and your efforts in theater are helping to build a stronger ADA Branch and are guiding our Branch into the future. It is an extremely exciting, pivotal time for ADA. We are in the midst of transforming our weapons systems, our training and our organization so we can remain an integral and relevant part of the current and future force.

New Technologies. The Army is strongly and firmly committed to providing our nation with a robust AMD capability and has invested billions of dollars into the missile defense mission area (spread over the next several years). This includes developing new weapon systems, new technologies and new capabilities. Starting in 2009 and continuing during the next three years, our Branch will field tremendous new capabilities.

This August, we will begin testing Surface-Launched Advanced Medium-Range Air-to-Air Missile (SLAM-RAAM) and will field the first unit in fiscal year 2011 (FY11). Our engagement range against targets with small radar cross sections will increase by more than 400 percent. At the same time, we are developing a comprehensive training strategy that will provide our Soldiers with 21st century training devices.

After all the projected transformations are implemented, ADA forces will have cutting-edge shooters like Medium Extended Air Defense System (MEADS), SLAMRAAM and Terminal High-Altitude Area Defense (THAAD)

system. Lessons learned from WOT are being integrated into every piece of our new systems and sensors, like the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS), Multi-Mission Radar (MR), Forward Based X-Band-Transportable (FBX-T) radar system and battle command. We are heading toward having the firing capabilities of 16 active Army composite battalions, one SLAMRAAM battalion and six Army National Guard SLAMRAAM battalions.

The THAAD modified table of organization and equipment has been approved, and Soldiers already are being assigned to A Battery, 4th ADA Regiment (A/4 ADA), 11th ADA Brigade, 32nd Army Air and Missile Defense Command (AAMDC). Our second THAAD battery, A/2 ADA, 11th ADA Brigade, 32nd AAMDC, will activate in FY10.

Accomplishments. Our congratulations go out to you great men and women who are cementing the already outstanding reputation of ADA for the future. Everywhere you look ADA Soldiers are accomplishing amazing feats, such as the following contributions accomplished during 2008.

In the Pacific, the 94th AAMDC is leading the way by building our current and future AMD capabilities. The command has moved forward with building stronger coalitions and joint capabilities throughout the region.

The 35th ADA Brigade continues its



superb partnership with the Republic of Korea, as our allies begin to procure and field its first Patriot units. Members of the brigade participated in two major joint/combined training exercises (Ulchi Freedom Guardian and Key Resolve), conducting kill-chain operations using fiber optics that enable centralized command and control. They also conducted relief in place/transfer of authority from 1-7 ADA to 3-2 ADA in May and from 1-44 ADA to 4-5 ADA in October, while sustaining a transparent, seamless 24/7 theater missile defense capability to the US Forces, Korea commander.

At Fort Bliss, the 32nd AAMDC continues to support multiple combatant commanders, meeting both planning and current operational needs in the European Command and Central Command (CENTCOM) areas of responsibility. Also, as the senior AMD command in the US Army Forces Command, 32nd AAMDC is the driver for all Army Force Generation actions.

The 11th ADA Brigade continues to support CENTCOM with Counter -Rocket, -Artillery and -Mortar (C-RAM) sense and warn capabilities and Patriot forces deployed in support of Operations Iraqi Freedom (OIF) and Enduring Freedom (OEF). This continual presence ensures our historic mission of providing a credible deterrent. Supporting the division and brigade combat team commanders' sense and warning needs solidifies ADA's reputation across the Army. The 11th ADA Brigade deployed three battalions and almost 2,000 Soldiers and Sailors to six different CENTCOM countries in support of OIF and OEF. Their mission set includes Patriot missile defense, C-RAM, airspace management and combat patrols. The brigade also redeployed three Patriot battalions and helped in the relocation of one battalion to Fort Hood, Texas, and one to Fort Sill.

Outstanding leadership is proven once again, as the 108th ADA Brigade manned, trained, equipped, validated and deployed two battalions in support of OIF. Currently, 2-44 ADA is executing a 12-month C-RAM and Security Escort/Detainee Holding Operations mission, and 3-4 ADA (battalion minus) is executing a 15-month nonstandard mission for Detainee Operations. The brigade executed both 1-7 ADA's (Tactical Control System) redeployment from Korea to Fort Bliss and immediately restationed the battalion (equipment and people) from Fort Bliss to Fort Bragg, North Carolina, completing its reception

and integration in late summer.

The 69th ADA Brigade, after completing its historic relocation to Fort Hood from Germany, builds AMD combat forces and supports rotating forces both in the Pacific and CENTCOM areas of responsibility.

The 6th ADA Brigade, "the heart of the Branch," continues to deliver the best trained Advanced Individual Training graduates in our Army—no easy task in the midst of conducting the Base Realignment and Closure (BRAC) move to Fort Sill, while supporting our Army at war.

The 31st ADA Brigade has completed its BRAC move from Fort Bliss to Fort Sill. The great 31st team is paving the way for the arrival of other ADA Soldiers to Fort Sill with high standards and superb team work with our FA brothers.

The 357th AMD Task Force continues to participate in exercises with NATO members and other partners. Most recently it supported combat skills training as part of Joint Task Force East in Novo Selo, Bulgaria.

In the midst of a busy year of deployments, redeployments and intense training missions, you—ADA Soldiers—accomplished the standard ADA missions and took on missions beyond your core skills in support of the WOT. Air Defenders led Infantry, Armor and Scout elements; patrolled alongside infantrymen; worked with military police; supported detainee and convoy operations; improved our own weapon systems; promoted greater capabilities; exhibited unmatched fires power; and introduced airspace awareness technology to the battlefield.

People. There is no question ADA has a strong team and a great reputation. The best part of my job is having the opportunity to get out and meet the Soldiers who make up our Branch and our great Army. Occasionally, I even get to meet the spouses and other family members who support you through it all. Deployments are never easy, and your generation of Soldiers has been asked to carry the burden of seven years of war; and you have done it with honor and at great personal sacrifice.

NCOs. In "The Year of the NCO," it is enormously important that we recognize the importance of our NCOs—their mission, their ability to lead and their direct impact on Soldiers.

Secretary of the Army Preston M. "Pete" Geren said this about NCOs, "At the front of every Army mission in the United States or overseas, you'll find a

noncommissioned officer. They know their mission, they know their equipment, but most importantly, they know their Soldiers. If you want to see what right looks like, ask an NCO. Or better yet, watch an NCO. They are the keepers of our standards."

There is no doubt about it—I have seen the power of ADA NCOs everywhere—you represent the very best. It is exciting to see NCOs being acknowledged for what you do and recognized for the tremendous amount of responsibility you take on for the welfare of your/our Soldiers. You are leading at a time of enormous change and multiple demands, both within the Army and in ADA. We stand proud with you and look to your individual unit Web sites to read about your accomplishments.

Soldiers and Families. You, as Air Defenders, make a difference in keeping ADA a vital part of the force. During the past year, you made significant strides with smooth restationings from one part of the world to another—from Germany to Fort Hood and Fort Sill; from Fort Bliss to Fort Bragg and Fort Sill; numerous deployments to Southeast and Southwest Asia; as well as support of OIF and OEF.

As hard as a deployment is on a Soldier, it is just as hard or harder for the families who are waiting at home, acting as both mom and dad for the kids, waiting for the phones to ring and praying for their Soldier's safety every day. The unwavering support and strength you give to our troops keeps them focused and battle ready.

In ADA, we talk a lot about weapons systems and fires capabilities, but we all know that the Branch is not great because of missiles, launchers or radars—it is our people who make us great. Hard working, dedicated people who never fail to fulfill the mission, take on new challenges. Many people have devoted their life's work to ADA—Soldiers, families, volunteers, civilians and contractors—and it took all of them to make ADA great. They are selfless servants of our nation and Army, and we are indebted to them for the proud history and the bright future of our Branch.

The CSM and I are confident that as we move forward into the next chapter, our Branch will remain the pinnacle of the world's Air Defense forces. Keep up the great work. You make ADA a vital part of the force. We are "Air Defense Artillery Strong," and that makes us *Army Strong*.

First to Fire!

Fires MUDICE

Senior Enlisted Leaders' Training Conference

By CSM Robert S. Rodgers, CSM of ADA

n 14 October 2008, senior enlisted leaders from the Air Defense Artillery (ADA) community converged on Fort Bliss, Texas, for the three-day Senior Enlisted Leaders' Training Conference (SELTC). This important conference will be held annually.

It should not go unnoticed that every ADA brigade command sergeant major (CSM) and all but three ADA battalion CSMs, came ready to roll up their sleeves and get to work. The three battalions not represented were either deployed or in the midst of preparing for deployment.

On the second full day of the conference, Major General Howard B. Bromberg, Chief of ADA, gave his opening remarks, followed by the first screening of the new "ADANCO" video. Members from key agencies spoke on several topics including new skill sets for the Space and Missile Defense Command (SMDC), Future Combat Systems and policies and procedures for the Army Wounded Warrior Program (see figure for full list of topics covered).

In addition, working groups met to discuss leadership challenges of the Patriot Master Gunner Course, operational force training requirements from the training base and the Senior Leader's Course critical tasks.

Patriot Master Gunner Course. The US Patriot force performed heroically during the advance on Baghdad in 2003, intercepting and destroying every Iraqi ballistic missile that threatened friendly forces. But the complex and highly fluid Operation Iraqi Freedom (OIF) battlefield, with its crowded airspace and high risk of ground-to-air fratricide, illuminated the requirement for increased Patriot system and tactical expertise as well as greater situational awareness. The ADA School responded by creating the Patriot Master Gunner Course. (For related Patriot information, see "Patriot Vigilance Project—Training and Leader Development for the Future Force," on Page 36 of this edition.)

The Patriot Master Gunner Course Leadership Challenges Working Group was organized to address selection, pretraining and use of unit master gunners.

During the working group's discussion phase, data based on attrition information revealed that trends

show a significant number of NCOs attending the course did not have the benefit of any pre-training before attending this challenging course. The group also discovered that some NCOs were not assigned to master gunner posi-

tions upon graduation.
The group concluded that not only was the successful graduation rate jeopardized, but also graduates were not employed in positions where ADA would recoup a "bigger bang for the buck." The unanimous



conclusion was that ADA needs unit leadership involved in the selection, training and employment of these high-caliber NCOs. The 3rd Battalion, 6th ADA (3-6 ADA), is expected to provide further data to implement changes to the current process. The point of contact (POC) for further information and resolution of this topic is CSM Thomas L. Eagan at (915) 568-1887/0796 or DSN 978-1887.

Senior Leader Course (SLC). The SLC Working Group was organized to help the Commandant of the Fort Bliss NCO Academy (NCOA) and the Directorate of Training-Leader Development of the US Army Sergeants Major Academy to identify what lessons from the First Sergeants (1SG) Course would be beneficial to have incorporated into the SLC. The 1SG Course, as we know it today, dissolves when the new tiered NCOES is implemented. Insufficient information resulted in the lack of a definite plan being formulated and put into place. More data is expected from NCOA. The POC for further information and resolution of this topic is CSM Gary L. Hall at (915) 568-2440/5538 or DSN 978-2440.

Sergeant First Class (SFC) Promotion Concept Working Group. The SFC Promotion Concept Working Group was organized to determine whether the current military occupational specialty



(MOS) base that designates MOS 14Z Air Defense Artillery Senior Sergeant, at the E8 and E9 levels, is adequate or if it is more feasible to designate MOS 14Z at the E7 level. After much discussion and research, the decision was made to maintain MOS 14Z at its current grade level because not all ADA SFC positions include platoon sergeant duties and responsibilities. The lack of platoon sergeant experience could hinder an NCO's ability to grow into Master Sergeant (MSG) and SGM if the cultural requirement of "you need platoon sergeant time" remains.

The current data shows that of all 119 MOS 14E Patriot Fire Control Enhanced Operator Maintainer SFC positions, only 54 are platoon sergeants. Of the 154 MOS 14J Air Defense Command, Control, Communications, Computer and Intelligence Tactical Operations Center Enhanced Operator Maintainer positions, none are platoon sergeant coded. Of the 113 MOS 14S Avenger Missile Crewmember SFC positions, only 40 are platoon sergeants; and of the 115 MOS 14T Patriot Launching Station Enhanced Operator Maintainer SFC positions, only 53 are coded as platoon sergeant slots.

Therefore, it is highly possible that a great SFC, who performs flawlessly everyday, may never attain the grade of MSG because of the cultural bias placed on the importance of having served as

- The Joint Fight
- New Skill Sets for Space and Missile Defense Command (SMDC)
- Attrition Trends and Effects
- Force Transformation
- The Army Wounded Warrior Program Policies and Procedures
- Future ADA Formation
- Current Promotion Board Procedures and Plans for Future Centralized Senior Enlisted Promotion Boards
- Defense Integrated Military Human Resources System (DIMHRS) Soldier Support Services
- NCO Education System Course Changes Due to the ADA School's Impending Move from Fort Bliss to Fort Sill, Oklahoma
- Future Combat Systems, Including the Joint Land-Attack Cruise Missile Defense Elevated-Netted Sensor System (JLENS); Counter-Rocket,
 -Artillery and -Mortar (C-RAM) System; Surface-Launched Advanced
 Medium-Range Air-to-Air Missile (SLAMRAAM) System; and Terminal
 High-Altitude Area Defense (THAAD) System

Topics that were covered at the Senior Enlisted Leaders' Training Conference, Fort Bliss, Texas, 14 to 17 October 2008

a platoon sergeant. The working group agreed that ADA needs a cultural change in how we look at the importance of specific positions. Why create all those other positions if they aren't important? Furthermore, why hold an NCO back if he does not have the opportunity to add those experiences to his resume through

no fault of his own—he is performing duties he was assigned. The NCO Evaluation Report with the total Soldier concept is the underlying theme when selecting NCOs for upward mobility. The POC for further information and resolution of this topic is SGM Scott R. Wilmot at (915) 568-1577/3752 or DSN 978-1577. (See Page 9 for more on this topic.)

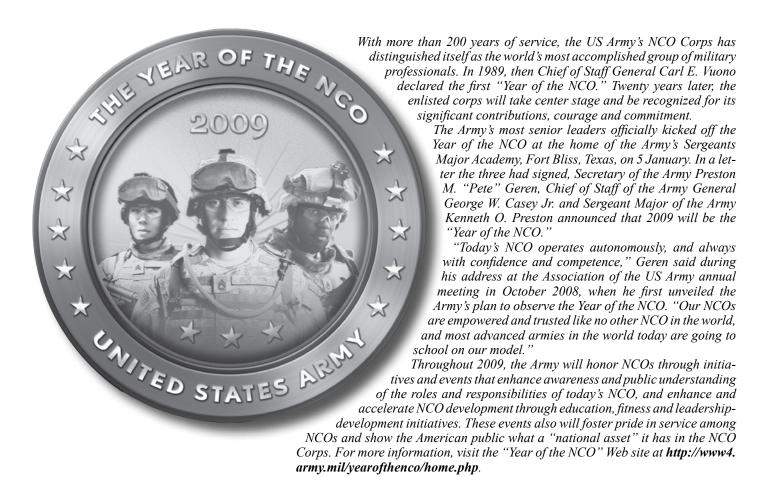
The conference culminated with a "Boots on the Ground" situational report from deployed units that touched on lessons learned from OIF.

Senior NCOs are encouraged to use the network contacts cultivated during this training conference. Keep the lines of communication open because you never know where the answer to your particular dilemma will come from. Continue to share ideas, raise topics and resolve issues, but most importantly, take what you have learned here and use it to ensure that those entrusted to your care and tutelage receive the best you have to offer. They will benefit greatly from what you learn at these types of training conferences.

Widen your scope of knowledge by using others' experiences as well as your own and passing that knowledge along. Keep your notebooks open and jot down those things you deem worthy of discussion at the next Senior Enlisted Leaders' Training Conference.



Command Sergeant Major (CSM) Robert S. Rodgers, left, and other CSMs attend the Senior Enlisted Leaders' Training Conference from 14 to 17 October 2008, at Fort Bliss, Texas. (Photo by Wes Elliott, Office of the Chief of Air Defense Artillery Branch Marketing Division)



Year of the NCO:

Pride in our Corps as the Backbone of the Army

he Merriam-Webster Dictionary defines pride as, "delight or elation arising from some act, possession or relationship." The Cambridge Advanced Learner's Dictionary defines pride as, "a feeling of pleasure and satisfaction that you get because you or people connected with you have done or possess something good." Today, it is very easy to take pride in being a member of one of the most elite group of individuals to walk the face of the earth—the US Army Corps of NCOs, the "Backbone of the Army."

In 1989, then Chief of Staff General Carl E. Vuono declared it the "Year of the NCO." Once again, my chest swells with pride as 2009 has been declared "The Year of the NCO" by Secretary of the Army Preston M. "Pete" Geren.

I never will forget that day in 1987, when I was laterally appointed to corpo-

By CSM Dean J. Keveles, FA

ral while serving as a forward observer with the 5th Battalion, 20th Infantry (5-20 IN), in the Republic of Korea. I vividly recall standing in front of the mirror, staring at my new "stripes" and feeling such a sense of pride, now a member of the NCO Corps. The moment's realization was most evident when my team chief handed me a copy of the "Creed of the Noncommissioned Officer" (or NCO Creed) and told me to not only read and memorize it, but understand what every single sentence means.

Our Creed. The NCO Creed can be traced back to 1973, to the fourth floor of building number four at Fort Benning, Georgia. With a plain white sheet of

paper and the three letters "NCO," the first all-enlisted subcommittee at the US Army Infantry School, headed by Master Sergeant John Cato, Sergeant First Class (SFC) Jimmie Jakes and SFC Earle Brigham, is credited with producing the NCO Creed. Since its beginnings, it has been memorized and recited by thousands of NCOs during graduations, induction ceremonies and promotion ceremonies.

However, too many NCOs are comfortable with just memorizing the creed. But how many actually take the time to understand what each and every sentence in the creed means? The word *creed* means a system of beliefs and guiding principals. The NCO Creed guides us in our daily activities and gives us the moral code to follow as leaders of Soldiers. However, there are those NCOs that go beyond just following the creed.



Acts of Selfless Service. Some NCOs perform acts of such selfless service in combat that immediate recognition is warranted. On 11 September 2006, as a junior NCO, Sergeant (SGT) Christopher M. Ferretti took charge of a patrol from Task Force (TF) 3-29 Field Artillery (FA) and two patrols from TF 1-167 (Reconnaissance, Surveillance and Target Acquisition), leading to 11 anti-Iraqi Force (AIF) personnel being detained. These AIF were determined to inflict casualties to Coalition Forces and damage to Coalition equipment by emplacing an improvised explosive device (IED). Ferretti detained one AIF on a motorcycle, four in a civilian car and four in an Iraqi Army vehicle, while maintaining integrity of evidence.

After discovering that one of the AIF was injured severely from the initial engagement, in accordance with established rules of engagement, he called in a 9-line medical evacuation, thus saving the man's life. This allowed the AIF to appear before an Iraqi Criminal Court for trial. Ferretti maintained his composure, calmly communicated all actions and took directions from the TF 3-29 FA tactical operations center over a very congested communications net. He continued to maintain direct communications and coordination with an air weapons team for security. SGT Ferretti was awarded an Army Commendation Medal.1

Sergeant (SGT) Christopher Ferretti is shown after recovering a downed Shadow unmanned aerial vehicle (UAV) from the Tigris River on 23 February 2006. (Photo by SGT Kenneth Sergent)

SGT Leigh Ann Hester, a military police officer in the Kentucky Army National Guard (KYARNG), became the first female Soldier awarded the Silver Star since World War II for her role in thwarting an Iraqi insurgent ambush in March 2005. In a 90-minute firefight, Hester and a handful of other ARNG Soldiers fought off more than 30 insurgents armed with assault rifles. machine guns and rocket-propelled grenades after the insurgents attacked a supply convoy southeast of Baghdad. The Americans killed 27 and wounded or captured seven others. Hester and seven other members of her unit, the 617th Military Police Company, received medals.

SFC Paul Ray Smith, the first recipient of the Medal of Honor in Iraq in 2003, made the ultimate sacrifice. He distinguished himself by acts of gallantry and intrepidity above and beyond the call of duty in action with an armed enemy near Baghdad International Airport, Baghdad, Iraq on 4 April 2003. On that day, Smith was engaged in the construction of a prisoner of war holding area when his TF was attacked by a company-sized enemy force.

Realizing the vulnerability of more than 100 fellow Soldiers, Smith organized a hasty defense consisting of two platoons of Soldiers, one Bradley Fighting Vehicle and three armored personnel carriers. As the fight developed, he braved hostile enemy fire to engage the enemy personally with hand grenades and antitank weapons, and organized the evacuation of three wounded Soldiers from an armored personnel carrier struck by a rocket-propelled grenade and a 60-milimeter mortar round.

Fearing the enemy would overrun their defenses, Smith, under withering enemy fire, moved to man a .50 caliber machine gun mounted on a damaged armored personnel carrier. In total disregard for his own life, he maintained his exposed position to engage the attacking enemy force. During this action, he was mortally wounded. His courageous actions helped defeat the enemy attack, resulted in as many as 50 enemy soldiers killed and allowed the safe withdrawal of numerous wounded Soldiers.

These are just a few examples of the selfless acts of service that NCOs are making everyday. We can take pride in being members of such an elite corps of individuals who perform such acts in the interest of the mission and for their comrades.

Self-development. NCOs accomplish self-improvement through developing and increasing their knowledge. Competition among peers and oneself are a form of self-development that improves one's knowledge and demonstrates the highest qualities of leadership and professionalism.

Participating in competitions (such as Sergeant Audie Murphy and Sergeant Morales Boards or NCO of the month, quarter and/or year) causes a "fever pitch" of studying to have the confidence of knowledge to win or be selected. Every time an NCO appears before such boards, he brings his knowledge to another level. Being declared the winner of a board or being inducted into the prestigious Sergeant Audie Murphy or Sergeant Morales clubs gives an NCO pride, gives pride to his unit and significantly contributes to the development of a professional NCO Corps. Studying for such boards better educates and improves NCOs.

Education. Today, more and more NCOs are seeking, or have obtained, their civilian associate, bachelor's and/ or master's degrees, making them more agile, adaptive and creative leaders. It



after receiving the Silver Star at an awards ceremony at Camp Liberty, Iraq. (Photo by SPC Jeremy D. Crisp)



Sergeant First Class Paul R. Smith is photographed during the opening days of Operation Iraqi Freedom.

is *knowledge* that builds confidence in oneself, and it is confidence that exudes power. Life-long learning is continuous, and there is great pride to be had with the knowledge one gains in a center of higher learning. Opportunities are available through formal classroom learning, online college classes and even correspondence courses.

NCOs who seek to educate themselves in the NCO Education System, as well as functional courses and troop schools, bring better capabilities back to our units. The US Sergeants Major Academy was established on 1 July 1972, at Fort Bliss, Texas, and it became responsible for leadership education. One year later, on 1 July 1973, our Army went to an all-volunteer force—thus began the requirement for a more professional NCO Corps to lead a force of volunteers vice draftees. The successful completion of each level of our professional military education further develops a greater sense of pride in membership of the NCO Corps.

Professional Publications. Increasing knowledge through reading professional military publications is a part of the lifelong learning process. One of the first publications that officially established the structure of the NCO Corps within the American Army was written by the Prussian Baron Friedrich von Steuben. During the 1777-1778 winter at Valley Forge, he laid the groundwork for the NCO Corps as it exists today with the writing of the Regulations for the Order and Discipline of the Troops of the United States, commonly known as the "Blue Book." The Blue Book set down duties and responsibilities for corporals, sergeants, first sergeants, quartermaster sergeants and sergeants major, effectively encompassing the NCO ranks of that day. The book also established the qualities a Soldier must have to serve in these demanding positions. For 30 years, the Blue Book served as the American Army's regulatory bible.

The NCO Journal, a quarterly publication that made its first debut in 1991, is a professional development tool designed to provide a forum for the open exchange of ideas and information, support training, education and development of NCOs and to foster a closer bond among its members.

Branch publications of professional reading, such as *Fires* and the *Infantry* Bulletins, to name a couple, are forums in which NCOs can gain further knowledge specific to their branches.

Field Manual 7-22.7 The Army NCO Guide is an official Department of the Army publication that states its purpose as "providing the Army's [NCOs] a guide for leading, supervising and caring for [S]oldiers." While neither all-inclusive nor intended as a stand-alone document, the guide offers NCOs a ready reference for most situations.⁴

A civilian version, titled *NCO Guide*, is in its 8th edition and has been published continuously since 1948. It is updated frequently by highly knowledgeable and experienced senior NCOs. It has grown in reputation as a key source of professional information for NCOs, who have come to rely on its accuracy and completeness.⁵

Though the World Wide Web contains a wealth of information for all NCOs, NCO Net at https://forums.bcks.army.mil is a particular online community of practice—a professional forum for NCOs by NCOs. The US Army Combined Arms Command Battle Command Knowledge System team at Fort Leavenworth, Kansas, developed and facilitates NCO Net as a virtual community where NCOs engage in professional conversations and the sharing of knowledge which becomes embedded in their professional lives. The proponent for NCO Net is the US Army Sergeants Major Academy.

Traditions and Heritage. Maintaining our traditions and heritage not only gives pride to our corps, but honors those deserving NCOs of past generations. We keep our traditions and heritage alive with such events as the NCO induction ceremony. The NCO induction ceremony is a celebration of the newly promoted corporals and sergeants joining the ranks of a professional NCO Corps. It emphasizes and builds on the pride we all

share as members of such an elite corps. The ceremony also serves to honor the memory of those men and women of the NCO Corps who served with pride and distinction. It is a rite of passage and allows fellow NCOs of a unit to build and develop a cohesive bond.⁶

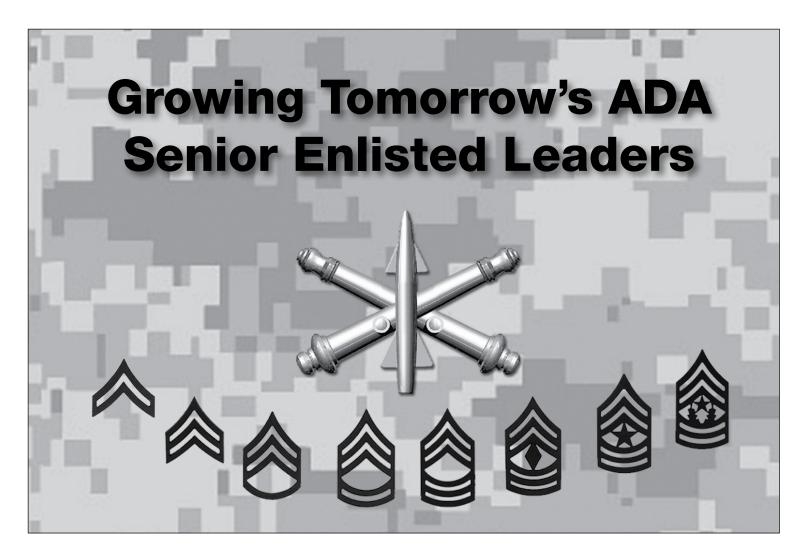
Since 2004, the NCO Academy at Fort Sill, Oklahoma, has hosted an annual NCO Backbone Ball. Each spring it continues to be well-regarded in honoring the contributions of the NCO to our Army. The event culminates with a "Backbone Ceremony" in which the chevrons and meaning behind each rank in the NCO structure is proudly displayed and revered in a six-foot tall vertebrae.

Understanding the commander's intent, it is the sergeants and staff sergeants who are getting the job done in combat in Iraq and Afghanistan. As long as our NCO Corps continues to be empowered by our commissioned officers and commanders, we will remain the best NCO Corps in the world; a corps in which so many other countries attempt to emulate. Our NCO Corps is educated, prideful and exudes a power unlike any other in this world. We can be proud of such deep heritage as the "Backbone of the Army" and take great pride in being members of the same corps as SFC Paul Ray Smith and SGTs Leigh Ann Hester and Christopher Ferretti.

Endnotes:

- Department of the Army Form 638 (Army Commendation), by Command Sergeant Major (CSM)
 Dean J. Keyeles, 11 Sentember 2006
- 2. Excerpt from Citation for the Medal of Honor, available at http://www.army.mil/medalofhonor/smith/citation/index.html.
- Erick Schmitt, "Female M.P. Wins Silver Star for Bravery in Iraq Firefight," New York Times, 17 June 2005.
 Field Manual 7-22.7 The Army NCO Guide (Washington DC: Department of the Army), 23 December 2002.
- CSM(R) Robert Sterling Rush, NCO Guide (Mechanicsburg, PA: Stackpole Books), 2006.
 Opcit. FM 7-22.7.

Command Sergeant Major (CSM) Dean J. Keveles, Field Artillery (FA), is the Commandant of the US Army NCO Academy. Fires Center of Excellence, at Fort Sill, Oklahoma. He served as the Battalion CSM of 1st Battalion, 22nd Field Artillery (1-22 FA), 434th FA Brigade, Fort Sill; CSM of the 3-29 FA, 3rd Brigade Combat Team, 4th Infantry Division, Fort Carson, Colorado; and also as Task Force Pacesetter CSM, deploying in support of Operation Iragi Freedom 05-07. He also has served as the School Chief/ First Sergeant (1SG) of the Advanced NCO Course, US Army NCO Academy; 1SG of Headquarters and Headquarters Battery, 212th FA Brigade; and 1SG of A Battery, 6-32 FA, all at Fort Sill.



n fiscal year 2010 (FY10), the Army will begin changing the way it uses command sergeants major (CSMs) and sergeants major (SGMs). This emerging transformation is evident already with the Select-Train-Promote system to be implemented in the Sergeants Major Course Class-60 beginning in August 2009. The transformation culminates with implementing a selection process mirroring existing command selection processes for slating CSMs/SGMs positions.

This process is intended to ensure the best-qualified Soldiers are assigned to the right positions. This requires a CSM/ SGM who has the qualities and skill sets to perform in either an operations SGM or CSM position. Once this process begins, those battalion CSMs who finish their tours in position will have three choices—retire, become a SGM again, or compete for another CSM position on an upcoming command selection. This process is almost "here-and-now" and needs to be conveyed to our junior NCOs, who ultimately will grow into this system. So, how do we prepare our NCOs for this transformation?

By SGM Scott R. Wilmot and MSG Fernando A. Crichlow, both ADA

Culture Change. Growing younger NCOs into this process begins with a culture change. Culture doesn't change overnight; it can take a generation. We must ensure our current senior enlisted leaders understand that every position in Air Defense Artillery (ADA) is important, otherwise it would not exist.

Using ADA sergeant first class (SFC) authorizations as an example, ADA already is underway in growing the CSM/SGM of tomorrow in accordance with the new utilization plan. When selecting eligible ADA staff sergeants for promotion—based on the fulfillment of key leadership positions versus those performing duties of increased responsibility and grade—the SFC Promotion Board members must consider the following facts.

Military Occupational Specialty (MOS) 14E Patriot Missile System Enhanced Operator/Maintainer has 119

SFC positions; of those, only 54 are platoon sergeant. MOS 14J Early Warning System Operator has 154 SFC positions; none are platoon sergeant. MOS 14S Avenger Crewmember has 113 SFC Positions; 40 are platoon sergeant. MOS 14T Patriot Launching Station Enhanced Operator/Maintainer has 115 SFC positions; 53 are platoon sergeant.

The remainder of these NCOs, 354 in total, may hold positions such as advanced individual training platoon sergeant, MOS career advisor/manager, senior small group leader, equal opportunity advisor, military science instructor, assistant inspector general, S3 NCO, and system evaluation NCO, detachment sergeant, operations sergeant or master gunner.

ADA has SFC positions in which the NCOs receive the training and experience to become the CSM/SGM of tomorrow. Yet, we seemingly treat positions other than platoon sergeant, first sergeant and CSM as something less important. We promote against the approved force structure that we all enjoy; but then we try to get all of those newly selected personnel into the same job (platoon

sergeant) because we worry about future upward mobility.

To achieve a culture change, three things must happen. First, our leaders and NCOs must use the Professional Development Model as a tool for managing our NCOs. Second, if an NCO is not performing well, his rater needs to look him in the eye and rate him accordingly. Finally, our leaders and NCOs must treat every position as being important while holding the NCO assigned to it accountable for the perception of that position. If these three standards are upheld, then in time the culture will change, and NCOs will be evaluated based on performance and potential instead of a particular position held.

NCOs need to be rotated properly in accordance with the Professional Development Model and subsequently screened for duty in critical, demanding positions and assignments. Only when an NCO, during the course of his career, has performed above expectation in every assigned position will he prove himself suitable for upward mobility.

Many wait for the proponent packet to be published before figuring out what to do for the upcoming board. This should not be the unit first sergeant's or battalion CSM's primary focus, because if vou wait for the memo, you are too late. For trend analysis and education on the branch, NCOs and unit leaders should use the proponent memorandum and brief as a tool to prepare for future boards.

Expectations for Promotion. The one area needing immediate change is the mentality about positions held. How do we look a SFC 14J in the eye and tell him to find platoon sergeant time when his MOS doesn't have any and then hold it against him during the MSG board? When this happens, the other authorized

or awards; does not attend training meetings and provide training input for future events; does not answer to the 1SG daily for issues; and does not juggle the boss's priorities against five other bosses' priorities. These assumptions are wrong. In addition to all these duties, the assistant operations sergeant is responsible for the brigade plans and training operations. This position carries just as much responsibility and is every bit as important and necessary as a platoon sergeant position.

CNIFD STATES ARMY Excelling at the Job. The NCOs in these types of positions can be as competitive for promotion as those who held platoon sergeant slots. First, they need to figure out what their specified duties are and be the best at those duties—better than anyone before them: this is the primary reason they were assigned to the position they have. Second, they need to go get some directed duties in their section, like property book officer, automation, physical security, etc; and fix all of it. Third, and this is most important, they must "master their implied duties."

Mastering implied duties takes time. All NCOs know to do what needs to be done without being told, and this is the basics of doing implied duties. A SFC spends 25 percent of his time doing specified duties. 15 percent doing directed duties, and 60 percent doing implied duties. This means a SFC never should make the statement, "there's nothing to do." Implied duties alone should keep him busy all day long. and this is without factoring specified and

directed duties.

If you don't know how to master your implied duties, then let me help you out a little bit. Find out what your boss's specified and direct-

ed duties are and make those your implied duties. This will get you started.

Credibility starts here, and NCOs are totally responsible for ensuring that they are ready for positions of increased responsibility. Senior leaders manage NCOs—and that is it. NCOs are responsible for the perception of the current position they hold, including the perception of the section or unit they

are assigned. Blaming predecessors or making statements such as, "this is how it has always been" is a cop-out used by the weak and lazy. If the perception is not good, then NCOs are bound by duty to fix it.

THE VEAR OF THE NO

Sergeant Major Scott R. Wilmot is the Air Defense Artillery (ADA) Proponent Sergeant Major for Office, Chief of ADA (OCADA) at the ADA School at Fort Bliss, Texas. He graduated with honors from the US Army Sergeants Major Academy and served as the Deputy Commandant of the NCO Academy (NCOA); the Operations Sergeant Major for the 3rd Battalion, 43rd ADA (P) (3-43 ADA); and the Brigade Operations Sergeant Major for the 11th ADA Brigade, all at Fort Bliss. He was the First Sergeant of Headquarters and Headquarters Battery (HHB), 1-43 ADA, 6th Cavalry Brigade at Suwon Air Base, Korea, and the Detachment First Sergeant, Office of the Secretary of Defense (OSD)-Joint Cruise Missile Defense at Elgin Air Force Base, Florida.

Master Sergeant Fernando A. Crichlow, ADA, is the Chief of Personnel Development Division 14Z Senior Career Manager in OCADA at Fort Bliss. He served as a Military Science Instructor at Georgia Military College at Milledgeville, and as the HHB First Sergeant for 2-1 ADA, at Gwaniu Air Base, Korea, and as the Air Defense Master Evaluator for 2-1 ADA. He is a veteran of Operations Desert Storm, Iraqi Freedom and Enduring Freedom.

We must ensure our current senior enlisted leaders understand that every position in Air Defense Artillery (ADA) is important, otherwise it would not exist.

SFC 14J positions are discounted as being of lesser importance.

For example, when a 14J SFC works in a brigade S3 as an assistant operations sergeant, the "cultural mentality" automatically assumes that this SFC has no NCOs or Soldiers to lead and mentor; does not get the phone calls at 0200; does not do NCO evaluation report (NCOER) counseling, NCOERs

GRUBER AWARD

2008 Winner: SFC Fernando Pharr, 4-27 FA

ergeant First Class (SFC) Fernando Pharr, Master Gunner for the 4th Battalion, 27th Field Artillery (4-27 FA), Baumholder, Germany, is the 2008 Gruber Award Winner.

The Gruber Award was established in 2002 to recognize outstanding individual thought and innovation that results in significant contributions to or the enhancement of the FA's warfighting capabilities, morale, readiness or maintenance. It is named after Brigadier General Edmund L. Gruber, 1979-1941, who, as a first lieutenant in 1908, composed the *Caisson Song* that the Army adapted as *The Army Goes Rolling Along* in 1952. (For more information, see "Knox, Hamilton and Gruber Awards" link on http://sill-www.army.mil/awards/default.htm.)

4-27 FA began the arduous task of resetting its FA batteries in the summer of 2007. During this time and beyond, Pharr demonstrated the true value of a master gunner. He tackled tough, demanding positions, allowing the command to meet demanding readiness standards despite



SFC Fernando Pharr, Master Gunner for the 4th Battalion, 27th Field Artillery (4-27 FA), prepares to use the aiming circle to verify a Paladin's data at Combat Observation Post Carver, Iraq. (Photo courtesy of 4-27 Public Affairs Office)

key leadership shortages. Since Pharr's selection as 4-27 FA's Master Gunner, he has endeavored to reestablish the unit's Artillery skills that had diminished drastically due to multiple nonstandard missions in support of Operation Iraqi Freedom (OIF).

He simultaneously held the battalion operations sergeant and master gunner positions, leading the operations section through gunnery rotations and mission readiness exercises with outstanding results, gaining the full confidence of the command team in the process.

Reset. Pharr helped transform the unit back into an Artillery battalion capable of meeting the requirements of providing accurate and predictable fires. He ensured that all junior leaders of the battalion's gun sections, fire direction crews and forward observer teams received necessary training for their continued professional growth. He convinced the 2nd Brigade Combat Team, 1st Armored Division, and US Army Europe (USAEUR) leaderships to support a mobile training team (MTT) Basic NCO Course (BNCOC) at Baumholder, Germany, for the unit's Artillerymen. This training became the catalyst that helped the battalion meet all Artillery-related requirements necessary to go to war.

During the trainup for the pending deployment in support of OIF 07-09, he devised a training model that effectively trained, certified and qualified all 18 gun sections. He ensured that the battalion trained on the tactics, techniques and procedures (TTP) most suited to a counterinsurgency, focusing on increased accuracy; and he coached and mentored platoon sergeants and platoon leaders on the finer points of employing their weapon systems.

In counterinsurgency, FA battalions must be adaptable, provide lethal and accurate fires, and be able to maneuver and fight as motorized rifle battalions. Pharr and his team understood this reality and prepared the battalion for success. As a graduate of the USAREUR Small Arms Master Marksman Course, he introduced light Infantry TTP to the unit. This training—and his recommendation that the battalion host the Fort Sill, Oklahoma, FA Master Gunner

Department sponsored Small Arms Optics MTT—prepared the battalion for its maneuver mission.

Deployment. His technical knowledge and tactical expertise played a critical role in deploying 100 percent of the battalion from Baumholder, Germany, to Camp Buehring, Kuwait, and finally to Baghdad, Iraq. When the battalion had an officer shortage, the commander selected Pharr to fill the battle captain position—a job traditionally held by seasoned captains. He was tasked with running a maneuver task force consisting of three maneuver companies and an Artillery battery in an operational environment (OE) that previously required the commitment of three battalion task forces (TFs).

After arriving in Central Command's area of responsibility and almost immediately upon entering its OE, 4-27 FA(TF Thunder) was ordered to provide fire support in the mission that would be the undoing of al Qaeda's influence in the Diyala Province. Ordered to move from its static firing positions and into the open, hostile terrain of Iraq, Pharr spearheaded the advance-party element that set, selected and prepared the gun position serving as the firebase in support of Operation Iron Pursuit. Pharr's expertise was essential to the battalion's readiness to fire well before the operation's execution hour—four hours earlier than planned.

Pharr worked with multiple in-theater field service representatives to ensure that all of the battalion's firing systems were intact and mission capable. These efforts proved crucial when the battalion fired its first XM982 Excalibur round, destroying an enemy vehicle that served as an improvised explosive device cache. Until that time, the enemy was using this cache, severely hampering the brigade's freedom of movement along a vital route.

This mission and successful firings in hundreds of other missions in support of 2nd BCT are due in large part to the confidence, ability and professionalism that Pharr instilled in the firing elements. Training is the key to combat performance, and Pharr's training efforts put the battalion in the best possible position for mission success.

KNOX AWARD

2008 Award Winner: B/2-11 FAR

Battery, 2nd Battalion, 11th Field Artillery Regiment (B/2-11 FAR), is the winner of the 2008 Henry A. Knox Best Active Component Battery Award. B/2-11 FAR's commander is Captain Zachary A. Reed with NCO leader First Sergeant Ramon Malave.

The annual award is named for the first Chief of Field Artillery, Major General Henry A. Knox, a Revolutionary War hero, and recognizes an outstanding Active Army battery based on specific criteria and a narrative of performance. A similar award was established in 1924 but was phased out in 1940 as World War II loomed. The award was reestablished in 2002. (For more information, see the "Knox, Hamilton and Gruber Awards" link at http://sill-www.army. mil/awards/default.htm.)

The B Battery *Bulldogs* dominated their mission sets while deployed in support of Operation Iraqi Freedom (OIF) 07-09. They executed diverse missions, including the traditional mission of providing indirect fires and nontraditional missions, such as a ground maneuver element and a base defense element. Flawlessly executing so many mission sets within a 15-month deployment is proof of the *Bulldogs*' professionalism and dedication.

Deployed. On Christmas Eve 2007, B Battery arrived in country at Contingency Operating Base (COB) Taji, Iraq. After completing relief in place/transfer of authority, 1st Platoon (1/B/2-11 FA) was task organized as a maneuver platoon and given responsibility for Joint Security Station Taji and three nearby towns. 1st Platoon was responsible for security and improving the quality of life of the Iraqi people who resided in its operational environment (OE).

2nd Platoon assumed control of Firebase Mayhem. It was here, at 0823 on 2 January 2008, that the *Bulldogs* became the first unit to fire the newly fielded lightweight 155-mm M777A2 howitzer in combat. B Battery would end its tenure on the gun line having fired more than 600 rounds in support of combat operations in the MultiNational Division, Baghdad (MND-B) OE.

Additional Mission Sets. In April 2008, 2nd Platoon received orders to



B Battery, 2nd Battalion, 11th Field Artillery Regiment (B/2-11 FAR) (Photo courtesy of B/2-11 FAR)

transition from the gun line to a security force to escort the embedded provincial reconstruction team (ePRT) charged with developing the governance and infrastructure throughout 2-25 Stryker Brigade Combat Team's (SBCT's) OE. 2nd Platoon fielded six new Cougar II Mine Resistant Ambush Protected (MRAP) vehicles and attended numerous personal security detachment training events in preparation for the new mission. The 2/B/2-11 FA Soldiers conducted more than 200 missions throughout the MND-B OE, seeing more areas of Iraq than any other platoon in 2-25 SBCT.

In May 2008, B Battery assumed the additional mission sets of the brigade tactical reserve and the division rapid reaction force. To meet the demands of these new tasks, B Battery had 1/C/1-27 IN and a section from 556th Signal Company assigned to its ranks. This Infantry platoon, Signal section and B Battery's headquarters element formed the brigade's action arm known as "Task Force (TF) Spear."

This platoon (plus) was responsible for conducting signal intelligence-based targeting of enemy high-value individuals (HVI) within and outside the brigade's OE. Using air assault- or Stryker-based ground-assault capabilities, TF Spear successfully captured many division, brigade, battalion and TF targets, including the brigade's number one HVI.

In October 2008, B Battery received orders to transition to operate and defend

the main entry control point (ECP) for COB Taji, as well as the base defense liaison team mission. 1st Platoon returned from its mission in sector and assumed duties at the ECP; 2nd Platoon transitioned from the ePRT security force and assumed the duties of the base defense liaison team.

To operate the main ECP known as "Gunner's Gate," B Battery received operational control of a Macedonian platoon and private security contractors from Uganda. As the base defense liaison team, 2nd Platoon patrolled on and off base for any possible threats to more than 20,000 Coalition personnel and contractors residing on COB Taji.

B Battery displayed the professionalism, dedication and flexibility necessary to execute numerous diverse missions in support of operations in MND-B. The *Bulldogs* led the way for the Army as the first unit to fire the M777A2 in combat, and their lethal and nonlethal maneuver operations notably were successful.

The *Bulldogs* are proven Warriors with the physical and mental dexterity to accomplish the mission with exemplary distinction. Through rigorous training, complimented with personal and professional development, every member of B/2-11 FAR contributes to a collective that is unmatched on the modern battlefield. B Battery quickly made a name for itself as an adaptable unit dedicated to completing the mission successfully—each and every time.

HAMILTON AWARD

2008 Award Winner: B/2-138 FA

Battery, 2nd Battalion, 138th Field Artillery (B/2-138 FA), Kentucky Army National Guard (ARNG), based in Carlisle, won the Hamilton Best ARNG Battery Award for 2008. Captain Robert S. Mattingly commands the battery with NCO leader First Sergeant Harold G. Davis.

Named for Alexander Hamilton, a Revolutionary War Artilleryman and American statesman, the Hamilton Award was established in 2002. It annually recognizes a high-performing ARNG battery based on specific criteria and a narrative. (For more information. see the "Knox, Hamilton and Gruber Awards" link at http://sill-www.army. mil/awards/default.htm.)

B/2-138 FA was mobilized 2 June 2007. in support of Operation Iraqi Freedom (OIF). B Battery is an FA unit with 84 Soldiers, but its assigned mission to provide convoy security for theater and corps level assets required 169 Soldiers. The unit quickly built a team with Soldiers who volunteered from more than 20 different units and from 52 of the 120 counties in Kentucky. Because B Battery was deploying for a nonstandard mission, women also were allowed to join for the first time in the history of the unit.

Deployed. Upon arrival in Iraq, B/2-138 FA managed the largest convov security element within the largest sustainment battalion in theater, providing the battalion with six organic patrols and one patrol made up of Soldiers from a regular Army unit under the unit's operational control. B/2-138 FA provided security for logistical missions that supported Coalition Warfighters within MultiNational Divisions, Baghdad (MND-B), North (MND-N), Central and Southeast.

B Battery provided up to 65 percent of the combat power of the 1103rd Combat Service Support Battalion (CSSB), which in turn was the main effort for sustaining operations in MND-B area of operations (AO). At its peak, the 1103rd CSSB provided support to 19 maneuver brigades, and B Battery ensured that these assets arrived at their intended destinations safely and in a timely manner.

Accomplishments. B Battery was the most heavily committed security company within the brigade. The unit

had 49 three-Soldier crews capable of providing seven convoy logistical patrols to the battalion. The Soldiers' constant desire to improve led to the refinement of several battalion tactics. techniques and procedures. As a result, B Battery successfully executed 140 missions, drove 299,538 miles and left the forward operating base 1.050 times. During this time, the unit was tasked with several high-profile security missions and proved to be a key component of sustainment operations within the MultiNational Corps, Iraq (MNC-I).

B Battery was instrumental in escorting more than 680,000 gallons of fuel between locations to increase Class III stocks in preparation for Ramadan. The battery was a major force in the operational move of an Iraqi battalion from Taji to Basra. The unit participated in multiple missions to move Mine Resistant Ambush Protected (MRAP) vehicles, including three missions to Mosul to provide the MND-N commander with the new Maxx-pro MRAP.

Perhaps the biggest contribution the unit made was in supporting numerous missions to emplace concrete barriers in support of new combat outposts and safe neighborhood projects, in particular the "Safe Road" mission in the 2-82 Brigade Combat Team operational environment. These missions were in the most dangerous areas of Iraq, and security was frequently the sole responsibility of the gun trucks in that area. Every logistical

asset committed to B Battery's care reached its intended destination.

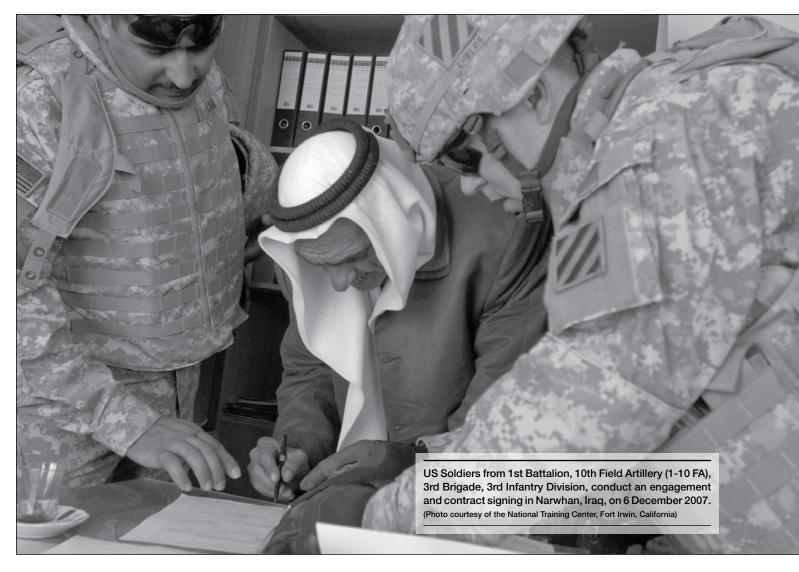
Adverse Conditions. Despite the loss of two of its Soldiers within eight days of each other and with five Soldiers wounded in action, B Battery continued the mission at hand. It logged more than 14,000 miles a week during the following three weeks and completed 14 additional missions, showing its mettle under the most adverse conditions.

Throughout this time, B Battery convovs were the subject of numerous attacks by anti-Iraqi and anti-Coalition forces. These attacks included five improvised explosive device (IED) strikes, five positively identified IEDs, one explosively formed penetrator attack, 10 indirectfire incidents, 21 small-arms attacks, one rocket propelled grenade attack and one complex attack. The unit reacted in accordance with the prescribed rules of engagement at all times and mitigated the damage to 1103rd CSSB assets.

B Battery set the standard for convoy security units during OIF 07-09. The tremendous success of the unit in supporting the main effort of the MND-B can not be understated in regard to the overall success in the area of operations. Despite the demanding, diverse and ever-evolving missions, B/2-138 FA met every challenge and never lost a single logistical asset that was committed to its protection. The Soldiers of this unit are of the finest in the Army inventory, their dedication and professionalism bring credit to their unit and the US Army.



B Battery, 2nd Battalion, 138th Field Artillery, Kentucky Army National Guard (Photo courtesy of 1st Sustainment Brigade Public Affairs Office)



Sphere of Influence Leader Engagements

ronment in Iraq and Afghanistan, one key critical to success is partnering and engaging with the local populace. This typically is accomplished through identifying spheres of influence (SOI) across the brigade combat team (BCT) area of operations (AO). These relationships are established from the highest-ranking Soldier in the formation down to the private pulling security at a checkpoint.

Interactions with SOIs encompass routine engagements where relationships are established and maintained, as well as during formal negotiations where there is a problem to solve, requiring a mutually supported agreement. Knowing how to negotiate properly is not an innate skill; it must be learned.

Every month at the National Training Center (NTC), Fort Irwin, California, 300 BCT leaders from the ranks of

By MAJ Douglas M. Thomas, FA, and Jeffery L. Ferguson

platoon sergeant through BCT commander undergo leader engagement training based on a methodology called principled-negotiation. Though the class once was offered only to commanders and staff, feedback from the field pointed out the need for platoon sergeants and platoon leaders to have this critical skill as well. So, in June 2007, the course was modified to provide training down to the platoon sergeant level.

Negotiation Types. There are two types of negotiations—positional and principled. A positional negotiation is defined as each side taking a position, arguing for it and then making a concession to reach a compromise. A principled negotiation, developed at the Harvard Negotiations Project as an alternative to

positional-based negotiations and used at NTC, is defined as a method of negotiation explicitly designed to produce wise outcomes efficiently and amicably.

In the book *Getting to Yes* by Roger Fisher, *et al*, four basic points describe principled negotiation: separating the people from the problem, focusing on the interests not the positions, generating several possibilities before making a decision and insisting the results are based on an objective standard.¹

The Course. The training is broken into four phases: Phase 1, Classroom; Phase 2, Leader Engagement Situational Training Exercise (STX); Phase 3, Company STX; and Phase 4, Full-Spectrum Operations.

Phase 1. Classroom training is divided further into two sessions. One focuses on company-level leaders, and the other focuses on battalion and BCT commanders and their staffs. Both classes highlight principled-negotiation methodology but differ in how the preparation process is executed at the battalion and BCT staff level compared to the company level.

Phase 2. Instructors and students from the Defense Language Institute, Monterey, California, serve as role players and interpreters during Phase 2, Leader Engagement STX. STX lanes allow the leaders to implement tools provided during the classroom training and are focused at three different levels: platoon, company and battalion/BCT. Each scenario's complexity level is relative to the responsibility level.

Phase 3. Company STX is the first portion of the NTC rotation. During this phase, companies conduct different types of lanes that require engaging the local populace, and the BCT and battalion commanders begin relief-in-place (RIP) engagements with NTC observer/controllers (O/Cs) playing the role of the outgoing unit. O/Cs give feedback to leaders on their abilities to implement the tenants laid out in the leader engagement training.

Phase 4. Full-Spectrum Operations occurs during the last seven days of the rotation. The BCT commander is the battlespace owner and has to work through several threaded events that are intertwined across the assigned fictitious Iraq or Afghanistan AO. An event that takes place in a battalion AO will have implications that must be addressed in other battalion AOs. This allows the BCT and battalion commanders to understand the importance of a synchronized engagement strategy to mitigate possible second- and third-order effects.

For BCT leaders to implement principle-based negotiation effectively, an engagement preparation methodology similar to the Military Decision—Making Process (MDMP) is used as a tool to prepare. Figure 1 shows the five-step preparation methodology taught at the NTC in relation to the MDMP.

Mission Analysis and Intelligence Preparation of the Battlefield (IPB). Preparing for an SOI engagement or negotiation is similar to preparing for any other military operation in that a mission analysis and IPB must be conducted. Mission analysis/IPB for an SOI engagement negotiation must focus on the individual or group being engaged, as well as specific cultural intelligence factors that influence the individual, group and region. This process is a critical step because it sets the conditions to progress to the next two steps.

A majority of the information needed for effective mission analysis/IPB should be provided in an existing database that is transferred during the RIP and transfer of authority (TOA) process. This data provides information on previous engagements and/or other information collected.

This database should include the AO's religious and tribal make up, cohesive or divisive issues in the community, former military/regime influences, current threat assessment, civil law enforcement composition and current sewage, water, electricity, academics, trash, medical and schools (SWEAT-MS) assessment to name a few. Any information not provided during the RIP/TOA, especially at company level, should be leveraged through the battalion and brigade staff elements. This step allows the unit to gather the appropriate tools to address the four points of principled negotiation.

Identify an Intended Outcome. It is important to understand that every meeting must have an intended outcome and only one intended outcome—though there may be many subtopics to the meeting. Identifying an intended outcome is initially a joint effort between the principal (person conducting engagement) and the preparation team following the mission analysis/IPB step.

Careful consideration must be given to what the counterpart wants from the engagement to create a "win-win" situation for both parties—fostering a cooperative environment and good relations during future engagements. An intended outcome has to be identified, the staff has to examine it for suitability and feasibility, and then the principal approves it.

Develop an Intended Outcome Strategy. This step devises the "concept of the operation" and "scheme of maneuver." Figure 2 (on Page 16) depicts the pre-engagement preparation checklist distributed to rotational leaders at the NTC. Identifying the intended outcome strategy allows the information leveraged during the mission analysis/IPB process to be used to determine how to attack the problem.

Getting to Yes points out, "To invent creative options, then, you will need 1) to separate the act of inventing options from the act of judging them; 2) to broaden the options on the table rather than look for a single answer; 3) to search for mutual gains; and 4) to invent ways of making their decisions easy." To paraphrase, thinking outside the box is important to give the principal options so he can create a cooperative environment.

One individual cannot think outside the box as effectively as a group. The group should have a facilitator along with key individuals who can bring their ideas from their respective warfighting functions or experiences in the AO. The

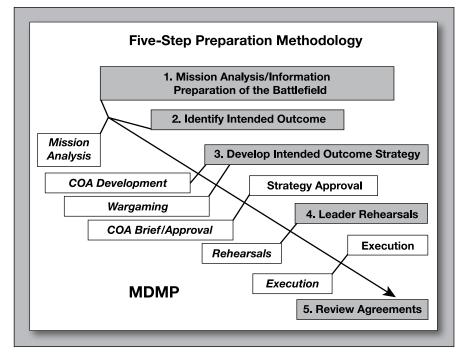


Figure 1: Five-step Preparation Methodology is shown in relation to the Military Decision–Making Process (MDMP).

facilitator should explain the approved intended outcome in detail to give the working group its focus. Every idea is relevant and should be allowed within reason and annotated by a note taker for future presentation, pending a decision on the viability of the ideas.

Best Alternative to a Negotiated Agreement (BATNA). After these conditions have been met, the group conducts a focused discussion about both the principal's and the counterpart's predicted BATNA. This will make it easier for the group to identify zones of possible agreements (ZOPA). BATNA is "selecting the best among the alternatives. If you do not reach agreement in the negotiations, which of your realistic alternatives do you now plan to pursue?"²

A BATNA that is both flexible and realistic gives the principal confidence that there is a feasible alternative to pursue if negotiation fails. An easy way to explain a BATNA is to use the NTC course's scenario of buying a car, because it depicts something familiar to most of us. Once grasped, BATNA principals can be extrapolated to other situations including negotiations between the US

Soldiers (principals) and citizens of Iraq and Afghanistan (counterparts).

Buying a Car Scenario. Before going into a car dealership, most people conduct research, find the vehicle they want and learn what price and features to expect. Then, the buyer (principal) goes to the dealership and finds the vehicle that meets his needs, and the salesman (counterpart) begins to negotiate the price with the principal.

It is important for the buyer to identify his best alternatives before shopping. Arriving at the dealership with an absolute price point in mind and leaving if the price point is not met, no matter what additional features or concessions are offered, is a sign of the principal did not select a flexible and realistic BATNA.

After the principal's and counterpart's BATNAs are determined, ZOPA can be developed to work toward the intended outcome—the principal purchasing a vehicle. In this scenario, possible ZOPAs may be free oil changes for a year, a lower interest rate or a higher trade-in value.

Leader Engagement Training. As leaders engage tribal, civil and religious leaders in Iraq and Afghanistan, the

- same principles apply. Many times, higher authorities direct the tasks, such as the Sons of Iraq's need for a combat outpost (COP) in the center of town or increased security for an election or other large event. Although these tasks can be accomplished without buy-in from the local population, the question is "how do leaders get their buy-in and commitment to maximize the effect?" Because these tasks are directed from higher headquarters, identifying the intended outcome in these scenarios may be easy, but without the buy-in from the locals, the negotiation may fail or be very difficult to accomplish.
- Election Security. Just as in the car buying scenario, if a Soldier (principal) walks into a meeting with the local leaders about election security with an intended outcome of blocking all major routes into town and restricting all vehicle traffic during a set timeframe, his bottom line and his BATNA are neither flexible nor realistic. This does not allow any recommendations from the local authorities (counterpart) and is counter-productive. A productive intended outcome would be establishing positions manned in part by the counterparts' key leaders to secure the event or engaging key leaders in the area to receive their recommendations and thus. their buy-in. If the principal allows the counterpart to feel as if they helped in providing security for the event, then the negotiation can become a mutually acceptable agreement.

The working group must "think outside the box" to identify methods for the commander to find areas where the two parties can find a mutually supported agreement.

Plan Documentation. With the help of a facilitator, the group selects realistic options, including talking points, to help steer the Soldier or principal past any sticking points or impasse issues and on to the intended outcome.

To better understand the problem, and to ensure that the proposed solutions are available, all planning decisions for the upcoming negotiation must be documented. Documentation can be done on a simple form with space to write the intended outcome strategy and talking points, the counterpart's predicted intended outcome strategy, IO themes, order of events, possible impasse issues and talking points, offers or ZOPA, and the BATNA. It is imperative for credibility purposes that any previous and current promises made and promises kept be documented.

- Assemble the staff (CSS rep, OPS rep, IO, PSYOP, CA, S2, FSO).
- Identify a facilitator to direct the meeting.
- Present the commander's intended outcome to the group.
- Identify counterpart's predicted intended outcome.
- Identify commander's BATNA.
- Identify counterpart's BATNA.
- Develop ZOPA based on an understanding of both BATNAs.
- Address the topics that could cause friction or impasses to an agreement.
- Develop a strategy and talking points to address possible impasse issues.
- Define the relationship-building topics (topics of interest to address as the ice breaker).
- Develop strategy to end the negotiation (viable excuse for having to leave).

Important: Units may need to engage this individual or party in the future; therefore, the counterparts must feel that they walked away with something. This cannot be a win-lose outcome.

Legend:

BATNA = Best Alternative to a Negotiated Agreement

CA = Civil Affairs (CA)

CSS = Combat Service Support (CSS)

FSO = Fire Support Officer (FSO)

IO = Information Operations (IO)

OPS = Operations (OPS)

PSYOP = Psychological Operations (PSYOP)

ZOPA = Zones of Possible Agreement

Figure 2: Pre-Engagement Preparation Checklist

Leader Rehearsals and Execution.

A leader rehearsal is the time to get all the key players together to step through the negotiation plan. Those attending the rehearsal should include (but is not limited to) the principal, an interpreter, a process observer and a person to role-play the counterpart.

The principal needs a thorough understanding of the approved negotiation strategy. The principal should use this time to rehearse the flow of the conversation and work through possible impasse issues before the actual negotiation.

The interpreter is the key to any engagement or negotiation when a different language is being spoken. The interpreter must be present during a rehearsal to understand the flow and strategy, to identify any unusual or unknown words or phrases and to gain an understanding of the demeanor necessary to convey critical points in the negotiation.

The process observer is a person who has been an integral part of the preparation process, has a complete understanding of all of the counterpart's historical information, an understanding of the negotiations process, and who can "read" the atmospherics of a room. This person accompanies the principal and monitors the feel, nonverbal signs and vocal tones that the principal cannot focus on during the actual negotiations. There should be understanding and trust between the process observer and the principal—so much so that the process observer can signal the principal (by a note or shoulder tap) that the observer can provide some immediate feedback and the principal will stop and accept the feedback immediately.

The person who role-plays the counterpart should be prepared to interject all possible impasse issues to help prepare the principal's intended outcome strategy. The role-player must anticipate how the counterpart will act to give the principal the opportunity to navigate through key areas of the negotiation before the actual engagement.

Upon completing the rehearsal, the principal is prepared to conduct the actual negotiation. Although a well-thought-out plan has been developed, the principal must have the flexibility to change based on the flow and ideas presented in the negotiation. If the counterpart presents an idea that the principal finds mutually acceptable, then he should feel comfortable working toward a solution to the intended outcome.

Review Agreements. Just as with a combat patrol, negotiations or even



1SG Michael Parker, 1-10 FA, conducts an engagement with Sheik Kassam to discuss the Son's of Iraq membership drive in the village of Sadat, Iraq, on 12 November 2007. (Photo courtesy of 1-10 FA)

routine engagements must have an afteraction review or debrief process. In this instance, the process occurs before the engagement is completed by reviewing agreements and issues. Essential elements of the debrief should include promises made between the principal and counterpart, newly discovered interests of the counterpart and topics that may be leveraged or may cause impasse issues in the future.

Once all issues have been captured in a written debrief, the information must be passed to adjacent units and higher headquarters to keep them informed of new developments in the AO. A way to do this is through the operational summary submitted to higher headquarters daily and through theater databases that now are beginning to come online. The summary keeps adjacent units and higher headquarters updated about the AO's actions and provides historical knowledge to units before their arrival in country.

All verbal interactions with the local populace are engagements, and any interaction can escalate to a level where a negotiated agreement must be reached. Both following the five steps in the preparation methodology and placing emphasis on the four points of principled negotiation are critical to success. Leaders should have all the tools in their "kit bags" to be successful during an engagement. Embracing this preparation methodology can ensure success when partnering and engaging with the local populace.

Endnotes:

Roger Fisher, William Ury, Bruce Patton. Getting to Yes (New York, NY: Houghton Mifflin Books), 1991.
 Ibid.

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JFO Sustainment

A Critical Requirement

In June 2006, Sergeant First Class (SFC) Jared Monti, 3rd Brigade, 10th Mountain Division, found himself in a firefight and outnumbered nearly four to one. His patrol was pinned down and in serious danger of being overrun. Monti, a certified joint fires observer (JFO), immediately returned fire and sought cover from the hail of incoming enemy rounds. He calmly assessed the situation, informed headquarters and initiated calls for indirect fire and close air support (CAS). He provided target data to a joint terminal attack controller (JTAC) located at his battalion's tactical operations center. The results of the indirect fires and CAS neutralized the enemy force.



A US Air Force B-52 Bomber conducts close air support (CAS) over Fort Sill, Oklahoma, for Joint Fires Observer (JFO) Course students during a training exercise. (Photo by MSG Lee A. Power, Joint and Combined Integration Directorate [JACI], Fort Sill)

his situation was precisely the reason that in 2004 Army, Air Force and Special Operations Command (SOCOM) leadership identified the need to provide additional training to forward observers in the execution of joint fires, particularly CAS. In fact, members of the joint CAS community were amazed at how fast the JFO Memorandum of Agreement (MOA) was signed. From concept to three general officer signatures in only a few months is "lightning fast" for the joint community. The JFO concept is proving so successful that the US Marine Corps, US Navy and a number of other nations' militaries are moving toward signing a revision to the JFO MOA under the auspices of US Joint Forces Command (USJFCOM).

The JFO adds joint capability to deliver all types of surface-to-surface fires

By LtCol G. Todd Lang, OKANG

efficiently, support air-delivered fires that are not CAS (e.g. AC-130, close combat attack and air interdiction), and facilitate timely and accurate targeting for a qualified JTAC in situations that are CAS as defined in *Joint Publication (JP) 3-09.3 Joint Tactics, Techniques and Procedures for CAS*. As a perishable competence, these tactical-execution skill sets require considerable initial training and continuation training to keep the JFO force ready and relevant.

Initial Training. The Fires Center of Excellence (CoE) at Fort Sill, Oklahoma, is currently the lead agency in the US military for conducting JFO training. Between August 2005 and November 2008, the JFO Course at Fort Sill pro-

duced 1,063 certified JFOs, and it can sustain more than 500 graduates per year at current production levels. As of November, there were a total of 1,298 JFO graduates in the US Army, US Air Force (USAF), US Marine Corps, US Navy and Royal Australian Air Force. In the US Army, the JFO program is suited especially to the forward observer—Military Occupational Specialty (MOS) 13F Fire Support Specialist, and course graduates receive an additional skill identifier (ASI) of L7.

The collaborative development of the JFO program of instruction meticulously follows JFO MOA guidelines. Students are trained carefully and comply via a "go/no-go" system with 17 items on the joint mission task list (JMTL). Because JFOs will coordinate fires in close proximity to friendly troops and they have a skill set

SGT Christopher G. Kavinsky, Headquarters and Headquarters Company, 3rd Infantry Brigade Combat Team, 10th Mountain Division, calls in a CAS 9-line brief via PRC-117F Radio system while JFO instructors Andrew J. Liermann (right) and Jeffrey Matheney evaluate. (Photo by MSG Lee A. Power, JACI, Fort Sill)

recognized worldwide by JTACs, pilots and maneuver unit commanders, there is no exception to meeting the JMTL. Maneuver unit commanders, JTACs and pilots should feel confident that, upon certification, JFOs can access joint fires in a timely, efficient and safe manner—if they maintain their qualification.

In the near future, the JFO ASI will be a modified table of organization and equipment (MTOE) requirement for Army units—it no longer will be optional. Organizationally, each maneuver platoon should have one qualified JFO.

The results of a Fires CoE Joint and Combined Integration Directorate breakout of this requirement—by maneuver unit in the active duty and Army National Guard—show that the US Army, alone, needs 2,334 qualified JFOs filling JFO MTOE billets. This number does not include officers, fires NCO leadership or any military transition team (MiTT) aspiration of two JFOs per team.

Additionally, the L7 ASI does not guarantee that a Soldier is available to fill a JFO billet in the force. The JFO is required to be qualified—not just certified—to perform JFO tasks. Qualification requirements dictate that a JFO successfully complete initial certification training, maintain semiannual training currency and pass a recurring JFO evaluation every 18 months. These requirements are detailed in the JFO MOA and are similar to fire support team certifications; however, the JFO MOA and MTOE combination make JFO qualification a requirement. It is important to note that all JFO production plans to meet force requirements assume that JFOs are being sustained.

Why Train JFOs? In the joint and coalition communities, common ground leads to common goals and increased motivation to work together. In today's high operations tempo world, motivation is critical. Good ideas are not enough—we must have good ideas and be motivated to implement them. Limitation of resources is a common ground that all Services and countries can understand. Specifically in this community, there is a shortage of manning, qualified instructors, sorties and equipment. These things are very expensive and are required for success.



JTACs. If a unit has the resources, a JTAC should be placed with every unit that may need air support. The USAF must pursue its increased JTAC production plan aggressively because JTACs are the focal point of CAS operations with or without JFOs. With the Army transformation in full swing, keeping up with demand for JTACs is no easy task.

JTACs start out by earning their Air Force Specialty Code 1C4 Enlisted Terminal Air Controller (or MOS) at Hurlburt Field, Florida. Success here is not guaranteed—the entry requirements are stringent, and the "washout" rate is high. After seasoning as a 1C4, their air support operations squadron (ASOS) may nominate them for the JTAC qualification course. This course is four weeks long and is only phase one of qualification (initial qualification training). Upon graduation, JTAC candidates must receive phase two from their home units before becoming fully mission ready (mission qualification training). This training is both expensive and time consuming.

To abide by the JTAC MOA, a JTAC must comply with multifaceted qualification requirements. At a minimum, JTACs must control live aircraft a minimum of 12 times per year (the JTAC MOA allows for two of these to be performed in Joint Forces Command accredited

simulators). More specifically, JTAC continuation training involves day and night controls of live munitions, target marking, terminal guidance operations, etc. At any time if any of these requirements are not met, the JTAC immediately becomes nonqualified.

Manning in the Air Force is especially tight at this point due to the recent elimination of 40,000 Air Force positions. In this environment, doubling the number of JTAC positions demonstrates the Air Force's commitment to this battlefield Airman program.

The number of JTACs planned by fiscal year 2012 (FY12) allows for habitual alignment down to the maneuver battalion level and a pool of JTACs aligned with certain maneuver companies. Habitually aligning down to the maneuver platoon level would require the Air Force to triple its planned number of JTACs. Even if the USAF could produce this many JTACs (which it cannot), it could never sustain this many JTACs in accordance with the worldwide standards set by the JTAC MOA. There simply are not enough sorties. To further this problem, every F-35 aircraft produced will replace two A-10 aircraft or F-16 aircraft, reducing training opportunities even more.

In the current dispersed environment, organic fire support may not be available,

A Joint Fires Observer is a trained Service member who can request, adjust, and control surface-to-surface fires, provide targeting information in support of Type 2 and 3 close air support terminal attack controls, and perform autonomous terminal guidance operations. Joint Fires Observer Memorandum of Agreement, 14 November 2005.

and there are a large number of small-unit operations. All of these circumstances leave the Services two options—either do not worry about the maneuver platoon's access to joint fires or come up with a suitable alternative.

If a commander anticipates that a planned maneuver will require CAS, it is incumbent on the commander to plan to deploy a JTAC with that company (or even to the platoon assuming JTAC availability). Knowingly planning a maneuver that will require CAS without a JTAC, thereby forcing an emergency fire support situation, would be a careless violation of doctrine and simply not prudent. This leads to a very suitable alternate—the JFO.

JFOs. The skill set a JFO brings to a platoon commander is impressive. The skill that gets the most attention is working with a JTAC to get CAS. This alone is quite an accomplishment, considering JFOs are trained for day or night missions using very different tactics, techniques and procedures (TTPs), using a large variety of munitions, fuses, aircraft and guidance methods (such as coordinatedependant weapons that require precise coordinates or laser-guided bombs that require detailed knowledge of communications, laser codes and TTP to guide these weapons) safely and in close proximity to friendly troops.

But a JFO brings more than this—he is also proficient at surface-to-surface call for fires, naval call for fires, AC-130 call for fires and close combat attack five-line call for fires—*if he maintains his qualification*. With this skill set, he's truly a joint fires observer. This skill set is very flexible and easily can be adapted

to different missions—it is good for the War on Terrorism, and it is good for any war that may arise in the future.

I often hear the comment that "a forward observer can do these things so a JFO does not really add value." This is dead wrong. Saying a forward observer can do these things is just talk—he must be trained to execute the skill properly. In the first 1,000 JFOs trained, almost none started the training with the required skills, and 138 could not execute safely even with the intense training they received from highly trained instructors.

FY08 student nonprogression attrition (failures) in the Fort Sill JFO course was approximately 16 percent. We simply cannot afford to just say the Soldier can do this—we must provide the training that the Soldier deserves.

Another comment I hear is, "If JFOs cannot do Type 1 CAS, then they are useless to me." Again, this is dead wrong. Today's technology significantly reduces the situations requiring a person on the ground to see the aircraft, see the target and assess nose geometry before issuing clearance. In fact, the number of Type 1 controls being accomplished in theater is almost zero.

Sustainment: The Road Ahead. It now is critical to the long-term success of this program for units to comply with the sustainment requirements of the JFO MOA. It is *unacceptable* to the worldwide joint fires community to not comply with the JFO MOA. Because this community routinely is held to the high standards of the JTAC MOA, all eyes are watching the US Army right now for worldwide leadership of the JFO program. A properly executed sustainment plan will cement the

JFO program, earn the mutual respect of a very particular joint fires community and most importantly keep JFOs proficient at their skills.

If resources do not allow for a JTAC, JFOs should be placed with units that may need air support—for many reasons. Using existing 13Fs (and junior fires officers), a program objective memorandum (POM) increase of manpower is not required—this MOS is suited for this job due to his location on the battlefield and existing training on Artillery ordnance, fusing, weapons effects and targeting in accordance with the commander's intent.

A JFO requires only an incremental increase in equipment (still a substantial commitment from the unit)—he is already battlefield equipped. Also, JFOs do not require a force-wide increase of live sorties, the single most difficult asset required for JTAC sustainment worldwide. Finally, while working with a JTAC, the JFO logs a CAS "event," and the JTAC logs a "control." While this live JTAC interaction certainly is recommended, the JFO can log his sustainment events on a simulator.

If done properly, simulator training can be an outstanding training event; if not done properly, the event adds no value and is a waste of time. For meaningful simulator training, you must have a suitable and maintained simulator, a training plan and a subject matter expert (SME) to ensure proper training is accomplished. Consistent self-paced or buddy training with no SME involvement does not prevent negative training or the atrophy of skills learned.

The cost of the JFO program is drastically less than a JTAC, and this is what makes the program viable. This, combined with the JFO's battlefield placement and relevant skills experience, solidifies the JFO concept. The added fact that the concept uses existing doctrine and existing chains of command (Theater Air Control System/Army Air Ground System) makes the concept rock solid.

How to Sustain JFOs. JFO managers should work with their aligned ASOS for JFO sustainment. CAS events are a large part of JFO sustainment and a strong relationship with your ASOS will "bear fruit" with JFO sustainment as well as CTC spinups and combat. The most successful JFO-JTAC operations typically come from units with this strong relationship.

JFO managers can reference https://www.us.army.mil/suite/page/387833 for specific information on JFO sustain-



A JFO student conducts joint fires simulation training during the JFO course. (Photo courtesy of JACI. Fort Sill)

ment JFO course prerequisites and a course description. The core JFO sustainment document is the JFO MOA, but a white paper is posted on the above Web site or at http://sill-www.army.mil/JCID (on the left-hand menu) that adds a little more explanation. In addition, *Field Manual 3-09.36 Joint Fires Observer* is scheduled for release in October 2009.

All JFOs graduate from Fort Sill with six months of currency. If they exceed six months without accomplishing all 13 semiannual events (see figure), then they become *unqualified*, but they are still a *certified* JFO. It is important to note that if a JFO deploys qualified, he remains qualified until redeployment. An unqualified JFO can accomplish the 13 semiannual events with a commanderdesignated qualified trainer, and he's "back in business" (unless it has been more than 24 months). For JFOs who have been unqualified for more than 24 months, they must accomplish the 13 semiannual events and complete a comprehensive evaluations.

A very useful tool for JFO managers is the recently released JFO online familiarization course. This course is designed to prepare Soldiers for the formal course. The two-week formal course is very busy and a bit like "drinking from a firehose." The 23.5 hours of online training introduce students to the materials which should increase their success rate at the JFO course. This online course also is an excellent way for JFOs to review portions of the course to help them with their sustainment training, especially when preparing for their evaluations every 18 months. The online course can

- 6 Live or Simulated Surfaceto-Surface Call-For-Fire Events
- 6 Fixed- or Rotary-Wing Events
 - 2 Live or Simulated Laser Terminal Guidance Operations (TGO) Events
- 1 Live Type 2/3 Control with Joint Terminal Attack Controller (JTAC)
- 1 Live or Simulated Night
- Target-Marking Event
 1 Simulated as Nonqualified
 JTAC
- 1 Live or Simulated Abort
- 1 Live or Simulated AC-130 Call-For-Fire Event

Joint Fires Observer Semiannual Requirements



Rounds from an AC-130 Special Operations Gunship impact in Fort Sill's West Range. (Photo by MSG Lee A. Power, JACI, Fort Sill)

be accessed at Joint Knowledge Online (JKO)—via Defense Knowledge Online or Army Knowledge Online—by clicking on "Take Courses" under JKO Tools and enrolling in the Joint Fires Observer Familiarization (JFOF).

Other efforts to help JFO sustainment at Fort Sill include developing trainer support packages, developing an online database for electronic tracking of currencies and working with the US Army Program Executive Office for Simulation, Training and Instrumentation (PEO-STRI) in an effort to connect Call-For-Fire Trainers to the Distributed Training Operations Center (DTOC). The DTOC then will schedule opportunities for units to work directly with JTACs in the virtual environment. This is an intriguing opportunity that will be complementary to working with units' aligned ASOS to participate in CAS opportunities.

The JFO is an important piece of the puzzle that has been missing. With the Air Force working to increase the number of JTACs and the Army working to increase the number of JFOs, we have an achievable harmony in sight. There are still some in the Army who will be happy only if the Army has JTACs, and there are some in the Air Force who only want to work with JTACs. These people must realize that the JFO-JTAC team is the only viable course of action when you consider the resources required. They also must understand, now that the JCAS leadership has committed to the JFO-JTAC concept, that recommended improvements in the joint fires arena will be much more likely to succeed if they are within the framework of the JFO-JTAC doctrine.

The success of the program is evident when Soldiers like SFC Monti can access joint fires to neutralize an engaged enemy force. But there are other longterm benefits, including growing a much more "joint minded" force. JFO training greatly increases a Soldier's joint knowledge, and the follow-on sustainment activities greatly increase joint interaction. This is a perfect building block for future joint leaders.

Today's maneuver unit commander has nearly the perfect excuse to not meet JFO MOA requirements. An almost unbelievable period of back-to-back deployments puts an incredible responsibility on these commanders. I am in awe of the requirements put on these commanders, knowing that their actions and training have life or death consequences in today's War on Terrorism, but it is precisely this reason that JFO sustainment training should be high on their priority lists.

Lieutenant Colonel G. Todd "Joker" Lang, Oklahoma Air National Guard (OKANG), is the Commander of Detachment 1, 138th Operations Group at the Joint Fires Center of Excellence, Fort Sill, Oklahoma. He has worked at the Fort Sill Joint Fires Observer Course since August 2005. Previously, he was a combat-mission-ready F-16 pilot with assignments at Homestead Air Force Base (AFB), Florida; Kunsan AB, Republic of Korea; Luke AFB, Arizona; and Tulsa Air National Guard Base, Oklahoma; with combat sorties during Operations Northern and Southern Watch. He also served as an OV-10 Forward Air Controller (Airborne) at Osan AB, Republic of Korea, and Wheeler AFB, Hawaii. During this time he also served as a joint terminal attack controller (previously known as ground forward attack controller) and Battalion Air Liaison Officer at Camp Red Cloud, Republic of Korea; Camp Casey, Republic of Korea; and Schofield Barracks, Hawaii.

The author would like to thank Maj Joshua "Taz" Hughes, USAF, Commander of Detachment 1, 6th Combat Training Squadron, for his insight and assistance with this article.

PGM Effects for the BCT Commander



By MG (Retired) David C. Ralston and Patrecia Slayden Hollis

The objective of US military kinetic operations always has been to defeat the enemy while minimizing risks to friendly forces, casualties among the innocent population and undesired collateral damage. Today, more than any era before, we have the technologies to achieve that objective across the spectrum of conflict. Even successful stability and nation-building operations have brief spikes of intensity calling for rapid, pinpoint lethality.

Force commanders require and have asked for precision indirect fire capabilities, and the Field Artillery (FA) is committed to providing those capabilities: tactical precision-guided munitions (PGMs). PGMs allow commanders to turn defeat into victory, save lives and minimize collateral damage.

In his survey of corps, division and brigade combat team (BCT) commanders, Major General (MG) Peter M. Vangjel, Chief of FA and Commanding General of Fort Sill, Oklahoma, reported that the maneuver commanders' fire support priority was precision. (See the "State of the Field Artillery 2007" by MG Vangjel in the September-December 2007 Fires online at sill-www.army.mil/firesbulletin.) The FA has been working diligently to answer the call.

The commander of ground forces in the highly successful Surge in Iraq in 2007, then Lieutenant General (LTG) Raymond T. Odierno, Commander of the MultiNational Corp-Iraq (MNC-I), endorses the effectiveness of the relatively new 155-mm Excalibur and Guided Multiple-Launch Rocket System (GMLRS) Unitary PGMs.

"...they were *extremely* effective. In fact, GMLRS and Excalibur were my brigade commanders' weapons of choice." (See the interview with LTG Odierno, "2007 Surge of Ground Forces in Iraq—Risks, Challenges and Successes," in the March-April 2008 *Fires*.)

We have entered a remarkable era of all-weather, all-terrain precision effects available to maneuver commanders 24/7 with Excalibur, GMLRS Unitary and the near-future Non-Line-of-Sight Launch System (NLOS-LS) Precision Attack Missile (PAM), projected to be fielded in fiscal year 2012 (FY12).

Six Meters and Closing. The indirect-fire PGMs are proving to be more accurate than the 10 meters required of a

PGM. Excalibur and GMLRS test results and combat records of their impacts catalogue their accuracy to within a six-meter radius of the intended targets, bringing us the closest we have been to a "one-round, one-hit" capability.

As the enemy was being cleared out of Baghdad, Iraq, during the 2007 Surge, many ran north to Baqubah in the MultiNational Division, North (MND-N) area of operations. Major (MAJ) Jack E. Vantress, the S3 of the 5th Battalion, 20th Infantry (5-20 IN), the lead task force (TF) during Operation Arrowhead Ripper in Baqubah, discusses Excalibur's precision and how the TF got the desired effects on a two-story building in his email dated 17 December 2007.

"We fired two rounds nearly simultaneously.... Excalibur's accuracy was such that the second round entered the building at the same point of impact as the first, thereby achieving the desired penetration to the first floor."

Employed in conjunction with other joint firepower assets, Excalibur gives the enemy no way out. In July 2007, two Excalibur rounds were fired on a house containing top al Qaeda leader Abu Jurah and 14 other insurgents in Arab Jabour south of Baghdad. An AH-64 Apache attacked a vehicle as insurgents fled from the rubble while an F-16 dropped two 500-pound bombs to destroy a house into which three insurgents had entered. The enemy never had a chance.

Colonel (COL) David B. Haight, Commander of the 3rd BCT, 10th Mountain Division, recently deployed his brigade

to Afghanistan. Before he deployed, he ensured his fires battalion had the capability to fire Excalibur.

"In June 2008, I went to the Fires Conference at Fort Sill and received a briefing

on Excalibur—GPS-[global positioning system]-guided and extremely accurate. With Excalibur's pinpoint accuracy, I can put one round into the bad guys' exact location and

take them out while causing minimum collateral damage and safeguarding the Afghan populace. Excalibur was exactly what we needed.

"We had identified an operational need for Excalibur, so we made the case for M777A2s in the brigade to fire the round—M777s are not organic to IBCTs [infantry BCTs]. FORSCOM [Forces Command] approved the request for the capability and resourced us with 12 M777A2 howitzers, which our 4-25 FAR quickly trained and certified on. The M777 has the added advantage of being lighter than the M198 and is very mobile; we can move it around the Afghan battlefield sling-loaded under a helicopter to fire Excalibur." (Information is from a telephone interview 3 December 2008.)

Excalibur has become a joint and combined effort as both the Marines and Canadians are using it in theater.

In September 2005, 3-13 FA, 214th FA Brigade, fired GMLRS in support

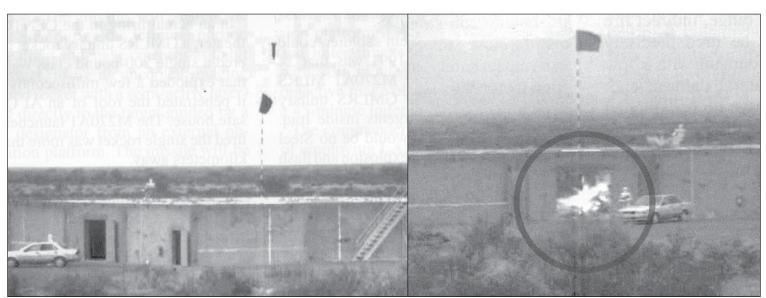
of MNC-I for the first time in combat during Operation Restoring Rights at Tal Afar and, the next day, during Operation Sayaid in the al Anbar Province. In Tal Afar, eight GMLRS destroyed two insur-

Excalibur and GMLRS test results and combat records of their impacts catalogue their accuracy to within a six-meter radius of the intended targets, bringing us the closest we have been to a "one-round, one-hit" capability.

gent strongholds and killed 48 insurgents from 50 kilometers away. In the al Abnar Province, six rockets destroyed a bridge used frequently by insurgents.

COL Kenneth J. Lull, former Commander of the 169th Fires Brigade of the Colorado Army National Guard that was the Force FA Headquarters for MND-N, the 25th Infantry Division (25th ID) in Iraq, reported experiences with GMLRS in Operation Arrowhead Ripper. "We shot more than 100 GMLRS in support 3-2 SBCT [3rd Stryker BCT, 2nd Infantry Division, attached to the 25th ID] in a two- to three-week period—a magnificent round."

Aided by unmanned aerial vehicles (UAVs), combat observation lasing teams, forward observers (FOs), joint terminal attack controllers and other detection assets, you can use Precision Strike Suite-Special Operations Forces (PSS-SOF) software to locate the target precisely enough to fire PGMs quickly. PSS-SOF has been incorporated into



Still frame images taken from video footage show an incoming 155-mm Excalibur unitary round close to the dead-center of its target in a near-vertical descent after being fired on a structure from 22 kilometers away. The image on the right shows the round, functioning in the delay mode, detonating after penetrating a four-inch concrete roof.

Forward Observer Software and rapidly determines three-dimensional grid coordinates accurately enough to employ PGMs against time-sensitive targets or targets in support of troops-incontact (TIC).

MAJ Vantress commented on the impact PGMs and PSS-SOF had on his TF operations during Operation Arrowhead Ripper in his email dated 17 December 2008.

"For both PGMs, our biggest combat multiplier was PSS-SOF. Used in combination with UAVs and FOs, we cut down the delivery time immensely. We loaded PSS-SOF in all our fire support Stryker variants to allow the forward fire support teams to quickly gain fidelity from their observers.

"After they called in the fire mission, I asked the company commander exactly where the target was—it was two houses to the west of the one we were standing in. That is a testament to GMLRS that we called it in on a target 50 meters from our own location with great confidence." COL Bruce P. Antonia, former Commander of TF 5-20 IN

"Simply put, GMLRS and Excalibur were our weapons of choice in the close urban fight. They saved countless lives ... while allowing us to maintain the momentum."

This speaks not only to precision, but also to responsiveness.

Precision is the "coin of the realm" at the BCT and below. With Excalibur organic to BCTs, you have a PGM that allows small unit commanders to gain overmatch and a decisive advantage. In Operation Iraqi Freedom (OIF), BCTs have had MLRS or High-Mobility Artillery Rocket System (HIMARS) "packages" support them with GMLRS—also very responsively.

Minimum Collateral Damage. Precision munitions mean more than just accuracy of impact and effects on the intended target. PGMs provide precise effects with minimum collateral damage in the target areas. You can employ Excalibur, GMLRS and, starting in FY12 and in appropriate circumstances, PAM close to TIC safely for immediate fire missions. These munitions reduce troop standoff distances, giving you the option of, say, entering a building to collect time-sensitive intelligence just seconds after you engage the building.

COL Lull told about experiences employing Excalibur as well in Iraq. (Information provided in an 18 November 2008 email.)

"We fired 17 Excalibur rounds for the 3-2 SBCT when it cleared Baqubah of insurgents in intense combat during Operation Arrowhead Ripper. In one mission, we fired Excalibur on a known enemy safe house. Although it did not level the building, it killed everyone in the building without harming the children about 30 yards away playing outside in the front of the next house.

"Excalibur is an *incredible* round.... I called MNC-I and asked for every Excalibur round I could get my hands on."

Brigadier General Stephen J. Townsend, Commander of 3-2 SBCT during Opera-

> tion Arrowhead Ripper, talked about employing GMLRS to detonate improvised explosive devices (IEDs) in Baqubah in his email dated 16 December 2008. The alternative was to uncover and

destroy the deep buried IEDs (DBIEDs) or house-borne IEDs (HBIEDs) with successive shots *manually* emplaced by an explosive ordnance disposal (EOD) team.

"Our pre-assault intel proved quite accurate—that we faced up to 175 DBIEDs and also booby-trapped houses, or HBIEDs, in Baqubah. By the time we were done, we had recorded more than 200 emplaced IEDs inside the city and about 41 rigged houses.

"We were desperate for a solution to the problem of DBIEDs—al Qaeda had been able to dig in an overlapping network of DBIEDs, sort of the equivalent of a deliberate interlocking minefield in depth. Bottom Line: GMLRS worked by neutralizing known and suspected DBIEDs and allowed us to maintain the momentum of our attack with minimum exposure to our force and minimum collateral damage to the Iraqi infrastructure."

COL Bruce P. Antonia, the former Commander of TF 5-20 IN, and his Sykes' Regulars fought in Baqubah three months before the rest of 3-2 SBCT joined them in June 2008 for the final assault to clear the city. In an email dated 17 December 2008, he talked about being able to shoot

GMLRS faster than he could air-drop a bomb on HBIEDs and the level of comfort they developed with GMLRS' accuracy and effectiveness.

"We were in the midst of clearing a neighborhood when one of my companies came upon a confirmed HBIED. I was on the ground with the company commander when he requested GMLRS to attack the HBIED. Because there was direct fire contact with the enemy and I was extremely confident in my commanders and all my FSOs [fire support officers], I immediately agreed to the request.

"After they called in the fire mission, I asked the company commander exactly where the target was—it was two houses to the west of the one we were standing in. That is a testament to GMLRS that we called it in on a target 50 meters from our own location with great confidence."

The United Kingdom has modified 12 of its M270 MLRS launchers to employ GMLRS Unitary in Afghanistan. In the past year, the UK has fired more than 300 GMLRS rockets in Afghanistan with the same 98 percent reliability as US missions enjoy.

Coming Soon: Moving Target Attack. In 2012, you will have a PGM organic to your BCT that will add a long-needed capability to attack *moving* targets—PAM—a global first.

This Army-Navy all-terrain, 24/7 missile will have an effective range of from 500 meters to 40 kilometers. Each of the 15 missiles per PAM container-launch unit (CLU) has an explosive shaped-charge warhead for armored targets with fragmentation for soft targets. PAM is designed to attack armored and lightly armored *moving* and stationary vehicles, small boats and some bunkers with pinpoint accuracy. Causing minimum collateral damage, it will be able to be employed in urban/complex terrain less than 110 meters from friendly forces.

PAM has a dual-mode seeker: the semiactive laser (SAL) and infrared (IR) heat seeker can be used separately or together for precision target engagement after its GPS navigation has guided the missile to the target area.

Networked and platform-independent, PAM is a smart missile. It can acquire specific types of targets in flight and attack them, including moving targets.

A missile flies along a non-ballistic route to the target to avoid crowded airspace and receives target location updates while in flight. Each missile transmits a picture of the target back to the control cell just prior to impact.

NLOS-LS completed nine tests in 2008 that have demonstrated its design and performance parameters. In November at White Sands Missile Range, New Mexico, it used its digital SAL seeker to score a direct hit against a T-72 tank from a range of nine kilometers; two days later, it demonstrated its SAL and IR seekers for another direct hit on a T-72, this time from 19 kilometers away.

The Army is considering an air defense application for this munition, which has tested very well to this point. The variant would fill the requirement to destroy low- and slow-moving UAV and rotary-wing threats, protecting the future combat system (FCS) BCT, the FBCT, during counterinsurgency operations. No current organic capability protects the brigade from these threats.

... the Current Fight. These PGMs are designed to give you the flexibility to manage the precision effects to achieve your desired results. Excalibur has a 50-pound warhead and GMLRS Unitary a 200-pound warhead, which can be employed against larger targets, yet both can be employed in close support of friendly troops. (PAM will have a 12-pound warhead and also will be employable in close support of your troops.)

Indirect fire PGMs will allow you to attack an enemy mortar crew setting up in downtown Kabul with Excalibur and produce minimum collateral damage or destroy a two-story duplex with GMLRS

Unitary, leaving the other half of the duplex standing. To increase your precision strike flexibility, the FA is developing "scalable lethality": a future GMLRS "dial-an-effect" capability.

You can fire Excalibur from as close as 7.5 kilometers and GMLRS from as far away as 70-plus kilometers. The Marines

in Iraq first gave GM-LRS its now-famous title of "70-kilometer sniper rifle." With the fielding of PAM, you will be able to fire the missile from as close as 500 meters from the target.

Enhancements to Excaliburdue in FY10

extend the round's range to 35 kilometers on current firing platforms. When PAM comes into the inventory in FY12, you will be able to precisely attack moving targets from 40 kilometers away.

In the past two years, two operational needs statements from Central Command commanders have called for a 120-mm mortar PGM in theater—another precision strike option to fill a gap. A mortar PGM would be highly mobile; organic to maneuver battalions and, therefore, responsive; and reduce the system-to-target range while still maintaining a maximum range that ensures munition versatility.

Recently, an IBCT fires battalion was tailored with attached M777A2s to

provide a capability to deliver PGMs in Afghanistan (4-25 FAR). This organization, for the first time, provides the IBCT commander with the ability to deliver precision munitions without waiting on an external asset to deliver longrange precision.

Lieutenant Colonel (LTC) Michael P.

PAM is designed to attack armored and lightly armored moving and stationary vehicles, small boats and some bunkers with pinpoint accuracy. Causing minimum collateral damage, it will be able to be employed in urban/complex terrain less than 110 meters from friendly forces.

Gabel, Commander of 4-25 FAR, 10th Mountain Division, deployed to Afghanistan in late 2008. He talked about tailoring his FA battalion to fire Excalibur (email 9 December 2008).

"My 3rd BCT was in OEF [Operation Enduring Freedom] VI and VII. It was the first brigade in Afghanistan to have its rotation extended to 16 months. The good news is we brought back a lot of lessons—for example, the importance of range and firepower in that mountainous terrain.

"During OEF VI and VII, the artillery had to fire its M119 [105-mm] howitzers at high angle with max charge to get the range it needed in that terrain. So for our 2009 rotation, we requested and



The US Marines fire the GMLRS Unitary from their High-Mobility Artillery Rocket System (HIMARS) in Iraq.

got 12 [155-mm] M777A2s—not only to increase our range and firepower, but also to improve our precision and limit collateral damage in urban operations with the Excalibur round.

"We reorganized into a multicapable battalion with 12 Triple sevens and kept four M119s for air assault operations. (I turned HHB [headquarters, headquarters battery] into an M119 platoon.) We shot 15,000 rounds under this organization in preparation for deployment. I think this multi-capable FA battalion organization may be the way to go—it gives maneuver commanders options. We'll know better after we have been in Afghanistan for awhile.'

These PGMs are not only all-weather, but also all-terrain, effective in urban, complex, mountainous or open terrain. Because of their near-vertical angle of attack, these weapons optimize lethality and minimize collateral damage.

The reduced collateral damage permits their use and their ability to deliver the desired effect within the rules of engagement in some of the most complex terrain.

With Excalibur's non-ballistic trajectory, it is not limited to clear fields of fire or tied to gun-target lines—it can be fired up to 300 mils off the line and

will maneuver to hit whatever target the maneuver commander wants to hit.

Army and Air Force command systems can be automated to deconflict

airspace faster and more accurately than ever. The Advanced FA Tactical Data System now shares information through the Battlefield Coordination Detachment to Air Force systems to provide airspace informa-

tion, enabling rapid coordination to deconflict flight routes in the vicinity of a PGM trajectory.

The lower the level of the release authority of the tactical PGM, the faster its fires are cleared. When clearance and control of Excalibur is delegated down to the TF commander, "it is more responsive than CAS [close air support] or attack aviation," said LTC Stephen J. Maranian, whose attached M777A2 battery (from 3-321 FA, 18th Fires Brigade) fired Excalibur (email dated 11 November 2008). LTC Maranian commanded 4-319 AFAR, part of the 173rd Airborne BCT, in Afghanistan from the summer of 2007 until July 2008.

> COL Charles A. Prevsler, recent commander of the 173rd Airborne BCT in Afghanistan, said "[Excalibur] worked as advertised.... Once we understood the time required to fire the round, it became clear we needed to get permissions and authorities down to the

Because the risk of

For large scale precision, USAF PGMs are brought to you by your FSO. In addition to the FA suite of PGMs, you have the

option of air-delivered PGMs, such as the Small-Diameter Bomb (SDB) with a 250-pound warhead and the Joint Direct -Attack Munition (JDAM) with options

You can fire Excalibur from as close as 7.5 kilometers and GMLRS from as far away as 70-plus kilometers. The Marines in Iraq first gave GMLRS its nowfamous title of "70-kilometer sniper rifle." With the fielding of PAM, you will be able to fire the missile from as close as 500 meters from the target.

battalion level."

collateral damage associated with these PGMs is smaller, PGMs such as Excalibur and GMLRS allow the commander to delegate release authority for entire categories of targets down the chain of command.

for 500-, 1,000- and 2,000-pound warheads. These weapons are precise in their destruction of larger infrastructure or concentrations of enemy forces. The only aerial-delivered munition that equals the limited collateral damage estimates of Excalibur, GMLRS Unitary or PAM is the Hellfire missile.

See the sidebar, "Excalibur and GM-LRS Unitary Stats and Specs" for more information.

Excalibur Lessons Learned. While GMLRS has been in the inventory and well-appreciated for several years now, Excalibur is relatively new and often unfamiliar to BCT commanders.

LTC Maranian (Commander of 4-319 AFAR) talks about several lessons he learned about Excalibur in Afghanistan (email dated 11 November 2008), which have been echoed by other FA commanders.

"We need to educate our maneuver counterparts that Excalibur is *not* Copperhead. Copperhead has left some 'scar tissue' with maneuver battalion commanders from their days as company commanders as they remember the cumbersome nature of that old PGM.

"Further, the default is that commanders want to fire two Excalibur rounds in case one fails. Needless to say, the TF FSOs and FSCOORDs [fire support coordinators] need to coach their maneuver commanders that while there are times when more than one Excalibur should be employed to achieve the desired effects, the reliability of this round far exceeds that of Copperhead, and we do not need to default to firing more than one round. Our experience was that Excalibur had an accuracy of within six meters of the target.

"With the right target selection standards and delegation of release authority to the TF level, Excalibur can provide reliable first-round accuracy for TIC when collateral damage must be minimized."



US Soldiers fire an Excalibur round from the M777A2 in support of Operation Enduring Freedom. (Photo courtesy of Combat Camera)

Other critical lessons—intelligence and precise target location are paramount for employing PGMs effectively. You must have the intelligence that the target is high-payoff and locate the target precisely or the PGM will attack a no-value target or the wrong location *precisely*.

Last, it is important to know what Excalibur will and will not do. It will not level most buildings, but it can destroy the rooms inside a building while causing very little collateral damage. This munition is effective against softer targets.

Today, Excalibur and GMLRS provide BCTs all-weather, day and night responsive precision strike capabilities on planned and unplanned targets in all terrain—PGMs that are organic to your brigade or readily available in the ground force. In the near-future, PAM will bring an additional precision strike capability to the BCT—the attack of moving targets. Together, they give you precision effects and range options and reduce your collateral damage and logistical burden.

The Field Artillery continues to work on precision indirect fire for the future, as voiced by the current Chief of FA, MG Vangjel: "As your fire supporters, we are totally committed to giving you the precision strike capabilities you need —we won't let you down."

Major General (Retired) David C. Ralston was the Chief of FA and Commanding General of Fort Sill, Oklahoma, from August 2005 to September 2007 when he retired. As Chief of FA, he accelerated the fielding of Guided Multiple-Launch Rocket System (GMLRS) Unitary and Excalibur in Central Command after combat commanders issued urgent needs statements for the munitions. He was the Director of Force Management, G3, at the Pentagon; Assistant Chief of Staff for Operations in Kosovo; and Commander of the 1st Cavalry Division Artillery at Fort Hood, Texas. He holds an MA from Central Michigan University and was an Army Senior Service Fellow at Harvard University. Currently, he is Director of Government Liaison with Stanley Associates and a partner in TDRS Consulting in Lawton, Oklahoma. His daughter, Amanda, and son, Mark, are deployed to Iraq.

Patrecia Slayden Hollis, who retired in late 2007, is the former Editor of Field Artillery for 20 years and first Editor of Fires. She has interviewed more than 80 senior US and international military leaders for publication, one of her most recent with (then) Lieutenant General Raymond T. Odierno, Commander of the MultiNational Corps-Iraq: "2007 Surge of Ground Forces in Iraq—Risks, Challenges and Successes," March-April 2008 Fires, In 2006, she won the six-state Katie Award and statue from the Dallas Press Club for her interview with Lieutenant General John F. Sattler, USMC, commander of US and Coalition Forces during the "Second Battle of Fallujah—Urban Operations in a New Kind of War," March-April 2006 Field Artillery, among other writing awards. She holds an MA from George Washington University.

The authors wish to thank the Fort Sill Training and Doctrine Command (TRADOC) Capabilities Managers (TCMs) for Cannon and Rockets and Missiles for their excellent support in writing this article.

Excalibur and GMLRS Unitary Stats and Specs

M982 Excalibur. This is the first Global Positioning System (GPS)-guided, inertial measurement unit (IMU)-aided weapon that can be fired from 155-mm platforms, including the M109A6 Paladin, the M777A2 towed howitzer and the Future Combat Systems Non-Line-of-Sight Cannon (FY17).

Excalibur is an extended-range (7.5 to 24 kilometers) unitary round that is all-weather, 24/7 and all-terrain and has been fired in testing and combat with an accuracy of within a six-meter radius of the target.

Excalibur has two special force-protection features. First, the round only arms itself when it is within 30 meters of the aimpoint—extra safety for rounds in close support of your troops. Second, the round has a built-in test that it exercises in flight. If it detects a problem, it goes into fail-safe mode and flies to a preplanned alternate ballistic impact point (BIP) but does not detonate.

Its 50-pound warhead has a highly concentrated and predictable fragmentation pattern, optimizing it for urban operations and minimizing collateral damage, allowing it to be employed within 170 meters of friendly troops in combat. Its non-ballistic flight trajectory that terminates in a near-vertical attack angle along with its precision produces concentrated lethality to the equivalent of the M107 high-explosive round.

The XM982 can penetrate a four-inch reinforced concrete building and destroy the contents of the rooms without damaging structures around it. By design, it does not level the building—just penetrates the building and detonates to destroy the rooms inside.

Its primary target sets are softer targets: artillery and mortar crews, vehicles and command posts, although Excalibur has been employed successfully against other targets in support of Coalition Forces. In Central Command, Excalibur has been effective against improvised explosive devices (IEDs), safe houses, mortar crews, footbridges and other targets.

M31 Guided Multiple-Launch Rocket System (GMLRS) Unitary. Fired by the M270A1 MLRS launcher and the M142 High-Mobility Artillery Rocket System (HIMARS), GMLRS Unitary has been highly successful in Iraq and Afghanistan in the War on Terrorism. It has a 200-pound preformed fragmentation warhead and a range of from 15 to 70 kilometers. To date, more than 1,000 IMU-guided, GPS-aided GMLRS have been fired in Iraq and Afghanistan since its initial limited 2005 fielding in Iraq. Many of these rockets were fired safely with impacts within 200 meters of friendly troops.

Its original primary targets sets are self-propelled and towed howitzers, logistical sites, command posts, radars and other non-armored targets. In CENTCOM, it has been employed effectively in congested urban environments against concrete buildings or structures, intersections, deep-buried IEDs and house-borne IEDs.

You can fire up to six rockets (five-second intervals) at six different aimpoints in the target area from MLRS or HIMARS. The launcher parks, lays, aims and fires the rockets in as fast as five-second salvos, automatically programming each rocket to its coordinates.



ADA School WOES Redesign

By CW4 (Retired) Joseph R. Minge, ADA

he Army Warrant Officer Education System (WOES) Redesign and the Air Defense Artillery (ADA) WOES Redesign was approved 2 December 2008. This article contains a brief background of that redesign.

ADAWO Advanced Course (WOAC) trains Military Occupational Specialties (MOS) 140A Command and Control Systems Integrators and 140E Air and Missile Defense (AMD) Tactician/Technicians.

The ADA WOES redesign is based on a thorough analysis and feedback from warrant officers, field commanders and command training guidance. The incorporated changes will achieve the goals and objectives set forth in the commander's intent of Operations Order (OPORD) 04-261A.

The redesigned ADA WOES focuses on preparing warrant officers to perform successfully in increasing levels of responsibility throughout a career. The training strategy is designed specifically to develop and produce a corps of highly specialized experts and trainers who are competent in technical, tactical and leader skills; are innovative problem-solvers able to function in complex and dynamic

environments; and are proficient operators, maintainers, administrators and managers for the Army's equipment, support activities and technical systems.

Combined Arms Center (CAC) OPORD 04-261A. The Army WOES Redesign is guided by the CAC OPORD 04-261A signed by General William S. Wallace, Commander, US Army Training and Doctrine Command (TRADOC) in September 2004, with a fragmentary order (FRAGO) signed by Lieutenant General David H. Petraeus, Commanding General of CAC and Fort Leavenworth, Kansas, in May 2006. The OPORD's intent is to create and implement an officer education system (OES) that integrates both commissioned and warrant officers in a collaborative learning environment to leverage the skills and experiences of both groups to promote a better understanding and appreciation of the roles and responsibilities of each. The FRAGO's key tasks call for an Armywide OES analysis. Individual branch schools were directed to perform needs and critical-task analyses for each of their MOS and areas of concentration (AOCs) to determine the appropriate level of integration needed to foster

collaborative learning. The integration efforts focus on consolidating the OES to include elements unique to both officers and warrant officers and identify elements that are common to both.

Analysis for ADA WOES Redesign. The needs and critical task analysis combined with Army and ADA Branch transformations yielded significant changes for ADA warrant officers. The ADA transformation included the addition of Patriot tactical and defense design tasks to MOS 140E. This change added approximately 80 table of organization and equipment (TOE) authorizations to MOS 140E.

The MOS 140A force structure transition was based on Army transformation which included an increase of integration requirements for command and control systems in the joint and space command and control architecture. This transformation increased the 140A warrant officer TOE authorizations from 49 to 123 positions. It also added new equipment (ANTSQ-253 air defense air management [ADAM] cell) and more individual tasks while significantly increasing the use of 140A warrants in both the active and Reserve Components. The new duty positions are distributed across the force in brigade combat teams (BCTs), combat aviation, fires, maneuver enhancement, division headquarters, corps, Army air and missile defense commands (AAM-DCs), Army Space and at Army level. The new individual tasks added to MOS



140A established additional training requirements.

OES Course Design. The analysis determined that the Warrant Officer Basic Course (WOBC), Basic Officer Leader Course III (BOLC III), Warrant Officer Advanced Course (WOAC) and Captain's Career Course (CCC) have some task similarities between the 14A Air and Missile Defense Officer AOC, and the 140A and 140E MOS; therefore, these tasks were considered for integration. The TRADOC mandated common core tasks are very similar among all three. The Patriot tactical control officer (TCO) and tactical director (TD) tasks for the 14A AOC and 140E MOS are shared tasks.

The current and projected BOLC III class size precludes consolidation with the WOBC at this time. However, the US Army Air Defense Artillery School (USAADASCH) decided that although WOBC and BOLC III would remain separate courses, they would share some curriculum.

The analysis of the TRADOC mandated common core tasks and many other tasks and learning objectives were common among MOS 14A, 140A and 140E. During the analysis, a few major training gaps that had been identified in warrant officer training were identified as being taught in the ADA CCC curriculum. Thus, USAA-DASCH sought and received TRADOC approval for implementation of courses that split the 140A and 140E WOAC into two phases and consolidated the AOC 14A CCC with the second phase of the WOAC. The redesigned (new) course titles are Warrant Officer Advanced Course Phase I and Warrant Officer Advanced Course Phase II

WOAC Phase I. The WOAC Phase I is designed for attendance by chief warrant officer twos (CW2s) upon completion of their first duty assignment as a warrant officer. For 140Es, course enrollment is authorized only after the warrant officer has completed the initial assignment at a Patriot fire unit in the position of a maintenance manager or TCO. Enrollment for 140As is authorized only after completion of the individual's initial assignment to an ADAM cell with a BCT or an ADA Patriot battalion.

140A Phase I. The mission of providing command and control systems integration to the ADA force is the foundation for leveraging the training of 140A warrant officers during WOAC Phase I. The integration of air defense command and control equipment and weapon systems

into the Army Battle Command System, Joint Multi-Tactical Data Link and command and control tactical communication architectures to the joint force contributes to overall mission accomplishment. The 140A warrant officers will learn how to execute horizontal and vertical integration with combined forces to synergize command and control elements into a synchronized AMD force throughout the operating environment.

140E Phase I. The orchestration of air battle management, joint operations and AMD TTPs, coupled with fusion of joint AMD fire support mechanisms and an understanding of the command and control architecture is the baseline for 140E warrant officer learning. Regardless of assignment, the 140E warrant understands and participates fully in the synchronization of ADA fire support with combined arms and joint operations.

Accordingly, each AMD Tactician/ Technician first must be trained in ADA systems capabilities, operations, maintenance support and logistics. The MOS 140E WOAC Phase I focus is AMD technical knowledge and tactical skills required to perform duty positions at the Patriot and AMD battalions. This focus will prepare warrant officers for duties as TDs and Electronic Missile Maintenance Officers who will use their training and evaluation skills to validate crew certification.

WOAC Phase II. The WOAC Phase II focus is advanced tactical training and leader development designed to prepare warrant officers for assignments at the CW3 and CW4 levels from brigade through echelons above corps. The course's purpose is to educate and prepare ADA career warrant officers to lead and manage operations in complex geopolitical environments worldwide.

Warrant officers attending ADA WOAC Phase II are integrated with captains attending ADA CCC throughout the course. This course provides comprehensive training on the Military Decision-Making Process, staff planning, operations and leadership; these were identified as gaps in the old WOAC. Successful completion of WOAC Phase II is the culminating event for completion of military education level six for all ADA warrant officers.

As a plus for the students who attend WOAC Phase II and CCC, the University of Texas at El Paso has partnered with USAADASCH to provide an opportunity for students who have an accredited bachelor's degree to earn a master's

degree in leadership during enrollment in the course.

Current ADA WOES Requirements. ADA warrant officers one (WO1s) and CW2s that have not pinned on CW3 by 1 June 2010 will attend WOAC Phase I as a mid-grade CW2. This seven-week and three-day temporary duty (TDY), unit-sponsored, Military Training Specific Allotment (MTSA) funded course is managed the same as the old WOAC. Enrollment is through the Army Training Requirements and Resource System (ATRRS) under course number 2-44-C32-140A for Command and Control Integrators and 2-44-C32-140E for AMD System Tactician/Technicians. This course is a prerequisite for attendance of WOAC Phase II.

ADA CW3s that have not completed WOAC and have pinned on CW3 by 1 June 2010 are "Grandfathered" from the Phase I prerequisite; they will attend WOAC Phase II. WOAC Phase II is a 20week, permanent change of station (PCS) course conducted in conjunction with the ADACCC. Enrollment is through Army Human Resources Command with PCS orders. The ATRRS course number is 2-44-C32 Ph2.

Department of the Army (DA) Pamphlet (PAM) 600-3, Commissioned Officer Professional Development and Career Management is currently under revision; however, the new version will state that CW3s must attend WOAC Phase II before promotion to CW4. The previous version of DA PAM 600-3 stated that warrant officers "should" attend within one year of pinning CW3. More information is provided in DA PAM 600-3 ADA Chapter 13.

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Education for ARNG FA Officers and NCOs

By COL Robert W. Roshell and LTC Lawrence M. Terranova, both FA

he overarching focus of the Deputy Assistant Commandant-Army National Guard (ARNG) office at the Fires Center of Excellence (CoE) and US Army Field Artillery School (USAFAS), Fort Sill, Oklahoma, is to support ARNG Soldiers and the FA Campaign Plan (FACP) published as a draft on the Fires Knowledge Network on 1 September 2008, and released 1 February 2009. The FACP's four lines of effort (LOEs) address the education of the FA officer and NCO: 1) Sustain Soldiers, Leaders and Families; 2) Win in the Current Fight; 3) Reset; and 4) Transformation.

To support those four LOEs, there are 20 campaign objectives, 64 supporting objectives and 149 tasks in this living, breathing document—all with the end state of providing adaptive, resilient and indispensible FA formations, both active duty and the Reserve Components (RC).

In the FACP, Major General (MG) Peter M. Vangjel, the Chief of the Field Artillery, defined the new mission of the Field Artillery as, "The mission of the FA is to integrate and deliver lethal and nonlethal fires to enable joint and maneuver commanders to dominate their operational environment across the spectrum of operations."

The complexity of integrating lethal and nonlethal fires in the current or future operating environment is a great challenge to ARNG Redleg formations. However, never before has the ARNG FA been able to bring more to the fight and be relevant. The ARNG FA consists of seven fires brigades and 59 FA battalions. The force structure consists of more than 21,000 ARNG Field Artillerymen which make up more than 50



Military Occupational Specialty (MOS) 13F Fire Support Specialist Soldiers identify and locate targets during a live-fire exercise conducted by the 1st Battalion, 640th Regiment (FA), Utah ARNG Regional Training Institute (RTI), at Command Post Williams, Utah. (Photo by SGM Charles J. Daniels, Army National Guard [ARNG] Senior Enlisted Advisor, US Fires Center of Excellence, Fort Sill, Oklahoma)

percent of the total FA. The training and equipping of these units is critical to the readiness of the Army's FA. More than 60 percent of ARNG FA formations are fielding the most current FA lethal and nonlethal weapon systems.

Meanwhile, ARNG FA Soldiers face the same challenges as their active duty counterparts, fulfilling nonstandard missions much like the active duty Soldier. Many of our ARNG FA NCOs and officers have lost core competency skills due to the numerous nonstandard missions.

As stated in the October–December 2008 issue of the *Fires* Bulletin, there are three main reasons we need to look at course redesign for our officer and NCO courses taught at the FA School and at the ARNG Regional Training Institutes (RTIs). Three issues driving course redesign are atrophy of FA skills, new educational demands for Soldiers and leaders, and emerging doctrine for the Era of Persistent Conflict.

This is a challenging, yet exciting time to be Field Artillerymen as we see the "Return of the King" unfolding before us. The transformation of our institutional courses and educational paradigms are the centerpieces of the Return of the King, a supporting document to the

FACP, and with 50 percent of the FA force being in the ARNG, it is imperative to look at FA course redesign for the ARNG officer and NCO.

Course Redesigns. The ARNG NCOs and officers face tremendous challenges in balancing the requirements of civilian jobs, civilian educations, military jobs, military educations and families. The difficulty in balancing these tasks became a reality recently when MG Vangjel was conducting his seminar with one Pre-Command Course (PCC) that had a large percentage of ARNG officers in attendance. The future battalion commanders expressed their concerns with the expansion of the length of Officer Education System (OES) and NCO Education System (NCOES) courses and, in particular, the expansion of the resident FA Captain's Career Course (FACCC).

MG Vangjel understands the effect of lengthening courses on our ARNG officers and NCOs. He told the ARNG PCC students to develop several courses of actions (COAs) that would be beneficial for the ARNG FA captain. The general briefed the resulting COAs to the ARNG FA leadership at the last FA Advisory Committee, and they have been used as the cornerstone for the development of the way ahead on the FACCC and RC FACCC.



FACCC Options. The ARNG FA officer has two options to complete his FACCC education requirement. The majority of the ARNG officers choose the RCFACCC option to fulfill this education requirement, due to the lack of funds from their states to attend the resident FACCC and, in a lot of the cases, the inability to take six months of vacation from their civilian jobs. The current resident FACCC taught at Fort Sill is a 24-week course. Per recent guidance from the Commanding General (CG) of the USA Training and Doctrine Command (TRADOC) General Martin E. Dempsey, the active duty FACCC is being revised, and we will see the new results of that revision soon. Per MG Vangjel's guidance, the ARNG leadership at Fort Sill will incorporate a TDY option for ARNG officers in the new FACCC residence course construct. The second option for ARNG officers is the newly redesigned five-phase RC FACCC. Figure 1 (on Page 32) shows the FACCC options and expectations.

ARNG RTIs. A great asset for the ARNG is the RTIs. Like other branches, FA has one subject matter expert regiment under the Total Army School System (SME TASS) for FA with five supporting FA battalions and numerous training batteries throughout the continental US (CONUS). Currently, all RTIs are chartered to conduct primarily individual training, but there is tremendous potential for RTIs to train the entire force and/or to help in the FA Reset mission.

As an example, the FA SME Regiment from the Wisconsin ARNG (WIARNG) has helped the NCO Academy at Fort Sill with several SME instructors for Reset mobile training teams (MTTs) with personnel accompanying the Fort Sill team on the road. Additionally, more active duty Soldiers now are using the RTIs, taking advantage of ARNG facilities and SMEs for military occupational specialty training (MOS-T) reclassification throughout CONUS.

To ensure that RTIs can conduct their MOS-T mission and can explore their future potential fully, it is essential to field the RTIs with the most current lethal and nonlethal FA systems—including M109A6 Paladins with the Paladin Digital Fire Control System (PDFCS), M777A2 howitzers with the latest software, M119A2 howitzers, Meteorological Measuring Set-Profiler (MMS-P), Improved Position and Azimuth Determining System (IPADS), Fire Support Command, Control and Communications (FSC³),

Lightweight Countermortar Radar (LCMR) and other radar. Ideally the RTIs must receive the latest simulations—virtual and immersive trainers—to operate at peak effectiveness.

In an effort to standardize training certification, the five FARTI battalions and their supporting training batteries are all accredited by the Quality Assurance Office at Fort Sill, while continuing to support new initiatives such as augmenting MTTs, pursuing aggressive distance learning courses and implementing innovative, multiphase courses to include MOS-T and the new Advanced Leader's Course (ALC) and Senior Leader's Course (SLC). The ARNG RTIs provide active duty installations with many new training initiatives, such as the model for the Warrior Leader Course and implementing a capstone, live-fire exercise, incorporating MOS 13B Cannon Crewmembers, 13D Field Artillery Tactical Data Systems Specialists, and 13F Fire Support Specialists from the 10 to 30 levels (as evidenced by the recent capstone event conducted by the Utah ARNG recently at Camp Williams, Utah).

The RTI Charter. The RTI charter encompasses the following programs.

TASS. The Total Army School System (TASS) is a composite school system comprised of the active Army, ARNG and US Army Reserve institutional training systems. TASS, through the Army's training proponents, provides standard training courses to America's Army, focusing on three main points of effort—standards. efficiencies and resources. TASS is composed of fully accredited and integrated active Army, ARNG and USAR schools that provide standard resident and nonresident distance learning institutional training and education for the Army. TASS training battalions are arranged in regions and functionally aligned with the training proponents.

The Army Training System (TATS) Course. TATS is a course designed to train any MOS or area of consideration (AOC) skill level—or language identifier code (LIC), special qualification identifier (SQI) or additional skill identifier (ASI)—within the Army. The course ensures standardization by training all course-critical tasks to task-performance standard, although it may be trained at different sites and may involve the use of different media or methods to train the various phases, modules or lessons.

With the close coordination of Human Resources Command, branch managers and the RTIs, more active duty Soldiers can be scheduled into open seats to fulfill their additional training needs. In addition, on a limited basis, RTI instructors, when available, can continue to augment any type of active duty MTT or Reset training teams from the Fires CoE, as they are doing now.

Other Initiatives. Two major Armywide initiatives are presently in the staffing and analysis phase. They are the Army Training and Leader Development Strategy (ATLDS) and the One Army School System (OASS) Feasibility Analysis.

The way forward for ATLDS, the first initiative, is "based on the initial effort approved by the Vice Chief of Staff during Army Campaign Plan, Decision Point 104, in August 2007, and reflects and expands upon the Chief of Staff's intent recently promulgated in the Army Training and Leader Development Guidance in August 2008. This strategy sends the clear message that the Army will not return to the old way of training and that it will demand innovation and change as it adapts unit training and leader development in the years ahead. As we adapt the institution, training and leader development will be different.

"The strategy provides specific direction to help the Army restore balance and emerge from a challenging environment driven by the effects of persistent conflict, Army Force Generation (ARFORGEN), doctrinal changes and modular conversion, with an agile, disciplined Warrior Team that is dominant across the spectrum of 21st century conflict" (ATLDS, dated 8 December 2008).

The second initiative, OASS Feasibility Analysis, was directed by Headquarters, Department of the Army, to achieve several objectives. It must conduct a feasibility analysis of the proposal to nest all active and RC schools under a single Army command to improve efficiency and effectiveness. The major objective of this analysis is to adapt the current school system to achieve economies of scale, align school missions to the right organization, ensure consistent standards and improve resource management (OASS Feasibility Analysis brief, November 2008).

One of the major tenets of the OASS Feasibility Analysis is the concept of "centralized missioning" of the training load throughout the training force to gain the most efficiencies, regardless of component. Some of the key tenets of OASS are listed in Figure 2 (on page 32).

Warrant Officer (WO) Education. 131A FA Targeting Technician WO Basic Course (WOBC) is being reviewed still. A new 17-week TDY option being discussed for ARNG WOs, which might attract enough interest from future 131A WOs to raise the present fill-rate of less than 40 percent.

Issues still under discussion as this article goes to press include the following. Most ARNG WOs cannot take 33 weeks vacation from their civilian jobs to attend the WOBC resident course. More ARNG WOs may be able to attend the new, revised 25-week WOBC resident course. A newly designed 17-week, TDY-option WOBC resident course has been designed and might be tested in a pilot course soon to both ARNG and active duty WOs. The

existing four-phase RCWOBC course has many challenges to graduating, capable, battle-ready 131As who are needed in theater. Regardless of the options being examined, there will be no relaxation of desired outcomes and standards.

NCOES Redesign. Much like the ARNG FA officers and warrant officers, the ARNG FA NCOs have two options to pursue when furthering their military education. They can take the resident courses at Fort Sill or the RC option at one of the RTIs. Many of the Basic NCO Courses and Advanced NCO Courses (soon to be ALC and SLC, respectively) are taught at the five FA RTI battalions or 10 RTI batteries. The majority of our

NCOs further their education by way of the RTIs. These courses must achieve the same standards as the active duty Army courses taught at Fort Sill, but in many cases are of shorter length due to the RTIs' conducting training on weekends and extending the length of instruction days. See Figure 3 (on Page 34) for the proposed redesign of the FA NCOES.

The initial efforts to revamp NCOES courses began with the revision of programs of instruction (POIs) to increase and add critical tasks that better reset and enhance NCO core skill sets for ANCOC and BNCOC, while simultaneously transforming these courses to the TRADOC-directed ALC and SLC.

Option 1: Resident FACCC - 24-Week Course with a 19-Week, Four-Day Temporary-Duty (TDY) Option (Top Right)

Option 2: Newly Redesigned Five-Phase RC FACCC (Bottom Right)

Both options will produce graduates who:

- Demonstrate the ability to think critically within the full spectrum of operations.
- Can provide adaptive and flexible leadership and can conduct problem solving in both tactical and garrison evironments.
- · Demonstrate the ability to develop and communicate a plan (verbal and written).
- · Demonstrate the ability to conduct FA operations planning at battery through battalion levels and is practiced in the "science" of tactical and technical fire direction.
- · Demonstrate a thorough understanding of tactical employment and synchronization of fire support assets with maneuver and is practiced in the "art" of fire support planning and targeting (lethal and nonlethal) at the battalion level.
- · Demonstrate mastery of battery-level operations and leader functions of a battery commander.

12 weeks Core Competency Block

- Ballistic and Manual Safety
- AFATDS/EMT
- Trouble-shooting and **Tactical Fire Direction**
- Battery Options
- Battery Admin

11 weeks Integration Block

- Command and Control
- Maior Combat Operations
- Process of Processes

- OPORD PEs
- Stability Operations

1 week **Assignment Oriented Training**

- HBCT • IBCT
- SBCT
- Fires Brigade

Core Competency Block

Module 1 (Gunnery) 1. Ballistics and Manual

- Safety 2. AFATDS/EMT
- 3. Trouble-shooting and **Tactical Fire Direction**

Module 2 (Reset)

Module 3 (Battery Command)

- 1. Battery Operations
- 2. Battery Admin

Module 4 (Nonlethal) 1. Tactical Information Operations

Integration Block

Module 1 (Command and Control)

1. Command and Control

Module 2 (Major Combat Operation)

1. Major Combat Operations

Module 3 (Process of Processes)

- 1. Process of Processes 2. OPORD PEs
- Module 4 (Stability) 1. Stability Operations

Module 5 (Battery

- Command) 1. Battery Operations
- 2. Battery Admin

Assignment **Oriented Training**

Module 1 (Tactical Unit)

- 1. HBCT
- 2. IBCT
- 3. BCT

4. Fires Brigade Module 2 (Other

- Follow-On)
- 1. MiTT 2. Recruiting
- Command 3. ROTC
- 4. Other

Legend:

AFATDS = Advanced Field Artillery Tactical Data System

BCT = Brigade Combat Team EMT = Effects Management Tool **OPORD** = Operations Order

PE = Practical Exercises **HBCT =** Heavy Brigade Combat Team IBCT = Infantry Brigade Combat Team

MiTT = Military Transition Team ROTC = Reserve Officer Training Corps

SBCT = Stryker Brigade Combat Team

Figure 1: FA Captain's Career Course (FACCC) Template. USAFAS presently is conducting analysis to determine the way forward to follow MG Vangjel's guidance to offer the Reserve Component (RC)/Army National Guard (ARNG) FA officer two options for the FACCC, one of them being a TDY option.

Simultaneously, to meet the TRADOC CG's vision of "train ahead," ALC/SLC is the concept of training NCOs for the next level, at the grade lower in NCOES, to include selected 35 hours of first sergeant tasks to be incorporated. Any POI revision to the current TRADOC-prescribed 13-month maximum timeline requires approval from both the National Guard Bureau (NGB) and TRADOC.

Functional Area Courses. Currently in Operation Iraqi Freedom, approximately 90 percent of targeting effects are directed at nonlethal targets. In Operation Enduring Freedom, the number is approximately 50 percent nonlethal targets throughout Afghanistan. This has increased the demanded skill sets of FA officers and enlisted Soldiers dramatically.

The Fires CoE aggressively leaned forward and, in many cases using internal "out of hide" assets, created several new functional courses almost "from scratch" to give FA officers and NCOs the prerequisite skill sets and capabilities demanded by commanders in combat operations. Below is an overview of the purpose and focus of the following new FA functional area courses: Tactical Information Operations Course (TIOC), Army Operational Electronic Warfare (EW) Course, Fire Support Coordinator (FSCOORD) Course, Joint Fires Observer (JFO) Course and Joint Fires and Effects Course (JOFEC).

TIOC. TIOC is designed to prepare brigade or battalion staff members to act as part of an IO working group/IO cell. This course focuses on the importance of IO in tactical operations and employment of IO assets as a member of IO cell. It trains the Functional Area 30 to prepare an IO annex, IO estimate, target synchronization matrix and to conduct a targeting brief for brigade and below elements. Each graduate of the TIOC is awarded the P4 additional skill identifier (ASI).

Army Operational EW Course. The EW Course provides a working foundation of operational level EW at the brigade and higher levels. It focuses on EW fundamentals, integrating EW into the Military Decision-Making Process and targeting process, executing and assessing EW and understanding and applying the EW order of battle. The students participate in scenario-based exercises to apply EW knowledge at brigade and higher levels. Graduates of this course earn the ASI of 1J.

FSCOORD Course. The FSCOORD Course enhances the training of FSCOORDs at brigade combat team (BCT)

level to employ full spectrum and joint fires more effectively and efficiently. The training focuses on the integration of full-spectrum lethal and nonlethal fires, FSCOORD joint targeting, Army operational EW instruction (electronic attack), IO and working an exportable or MTT package. The students participate in video-teleconferences with experienced FSCOORDS in theater and ground-fight-focused practical exercises using the Joint Fires and Effects Simulator.

JFO Course. The JFO Course provides proper training for personnel to access a wide variety of joint fires. Graduates are recognized by services worldwide as capable of providing targeting data in a timely, efficient and safe manner. With this skill, JFOs can access joint fires even when a joint terminal attack controller (JTAC) is not on scene. The course focuses on advanced surface-tosurface fires, naval surface-to-surface fires, AC-130 calls for fire, day and night close-air-support tactics, techniques and procedures (TTP), laser- and coordinatedependent weapons TTP, close combat attack and Precision Strike Suite-Special Operations Forces software.

JOFEC. JOFEC teaches the processes to apply and integrate joint lethal and nonlethal fires and effects as well as to teach the joint targeting process and how the joint fires and effects system operates. This prepares students to function effectively at the joint operational level through the full spectrum of military

operations and is reinforced by practical exercises that focus on applying the principles of joint lethal and nonlethal fires and effects.

The RTIs provide assistance with instruction in some of these functional courses as well as including active duty Soldiers in their instructions. The Vermont RTI teaches the TIOC, including awarding the ASI.

Ongoing coordination between the Joint and Combined Integration Directorate (JACI), the Fires CoE and the WIARNG RTI could result in a pilot JFO course taught at Fort McCoy, Wisconsin. Present discussions would have the WIARNG provide the Fort Sill-certified 13F instructors and facilities; the Illinois ARNG provide the pilots; and JACI augment the instructors during this endeavor. The Senior ARNG Advisor office at Fort Sill is working to coordinate among the different joint and multiservice agencies to make this course a reality and to gain ARNG G3 concurrence for this and other innovative paths forward.

Joint Fires University (JFU). The JFU vision is to be the leader in providing education, training and development of experts in the art and science of lethal and nonlethal fires, producing Soldiers, leaders and units that enable the maneuver commander to dominate fire support operations utilizing Fires.

JFUImpacts ARNG. Lifelong learning programs and reachback capabilities can serve the individual RC Soldier and RTI campuses. RTIs will be considered

- Develops the "total Army training load" and mission against the "total Army training capacity."
- Army Program for Individual Training (ARPRINT) remains the Army's training-mission document.
- Enables greater synchronization across components in determining training capacity to leverage available and most efficient training venues.
- Requires the same standards of training quality and accreditation across components.
- Requires Headquarters, Department of the Army, authority to assign Soldiers to schools regardless of component.
- Requires components to execute training in accordance with Army priorities.
- Requires full active Army participation in the Training Coordination Council Workshop process before the Structured Manning Decision Review (SMDR).
- Resources must follow mission assignment.

Figure 2: Some of the key tenets of the One Army School System (OASS) Feasibility Analysis brief, November 2008

Existing			Transformation				N et C hange		
C ourse Title	A D Time	R C H ours	R C Phases	Course Title	A D Time	R C H ours	R C Phases	A D Time	R C H ours
FA Cannon Section Chief BNCOC	3 weeks, 3 days	174	1 A D T	13B ALC	5 weeks	225	1 IDT, 1 A D T	1 week, 4 days	51
FA Platoon Sergeant ANCOC	4 weeks, 1 day	197	1 A D T	13B SLC	7 weeks	303	1 IDT, 2 A D T	2 weeks, 6 days	106
FA Tactical D ata Systems Specialist BNCOC	6 weeks, 1 day	257	1 IDT, 1 A DT	13D ALC	6 weeks, 2 days	265	1 IDT, 1 ADT	1day	8
FA Tactical D ata Systems Specialist ANCOC	3 weeks, 2 days	168	1 A D T	13D SLC	6 weeks, 1 day	235	1 IDT, 1 ADT	2 weeks, 6 days	67
Fire Support Sergeant BNCOC	3 weeks, 3 days	183	1 IDT, 1A DT	13F A L C	5 weeks, 4 days	232	1 IDT, 1 A D T	2 weeks, 1 day	49
Fire Support Sergeant ANCOC	4 weeks, 2 days	203	1 IDT, 1 A D T	13F SLC	8 weeks	320	1 IDT, 2 A D T	3 weeks, 5 days	117
MLRS Section Chief BNCOC	3 weeks	156	1 A D T	13M ALC	4 weeks	192	1 IDT, 1 ADT	1 week	36
MLRS Platoon Sergeant ANCOC	1 week, 3 days	132	1 A D T	13M SLC	4 weeks, 5 days	223	1 IDT, 1 ADT	3 weeks, 2 days	91
MLRS Operations/Fire Direction Section Chief BNCOC	2 weeks, 4 days	147	1 A D T	13P A L C	3 weeks	155	1 IDT, 1 A D T	3 days	8
MLRS Operations/Fire Direction Senior Sergeant ANCOC	2 weeks	128	1 A D T	13P SL C	4 weeks, 1 day	195	1 IDT, 1 ADT	2 weeks, 1 day	67
FA Radar Section Chief BNCOC	4 weeks, 1 day	201	1 IDT, 1 A DT	13R A L C	7 weeks	280	1 IDT, 2 A D T	2 weeks, 6 days	79
FA Senior Radar/ Targeting Sergeant ANCOC	5 weeks, 4 days	253	1 IDT, 1 A DT	13R SLC	8 weeks	320	1 IDT, 2 A D T	2 weeks, 3 days	67
FA Surveyor Section Chief BNCOC	3 weeks, 4 days	182	1 IDT, 1 A DT	13S A L C	4 weeks	184	1 IDT, 1 ADT	3 days	2
FA Survey Senior Sergeant ANCOC	2 weeks	127	1 A D T	13S SL C	3 weeks, 4 days	194	1 IDT, 1 ADT	1 week, 4 days	67
FA Meteorological Section Sergeant BNCOC	2 weeks, 2 days	130	1 A D T	13W ALC	3 weeks	148	1 IDT, 1 ADT	5 days	18
FA Meteorological Section Leader ANCOC	1 week, 3 days	112	1 A D T	13W SLC	3 weeks, 3 days	181	1 IDT, 1 ADT	2 weeks	69

Legend:

AD = Active Duty

ADT = Active Duty for Training ALC = Advanced Leader's Course

ANCOC = Advanced NCO Course BNCOC = Basic NCO Course

FA = Field Artillery

Hrs = Hours

IDT = Individual Duty for Training

MLRS = Multiple-Launch Rocket System RC = Reserve Component

SLC = Senior Leader's Course

Wks = Weeks

13B = Cannon Crewmember

13D = FA Tactical Data Systems Specialist

13F = Fire Support Specialist

13M = MLRS Specialist

13P = MLRS Automated Data Systems Specialist

13R = FA Fire Finder Radar Operator

13S = FA Surveyor

13W = FA Meteorological Crewmember

Figure 3: The FA NCO Education System Proposed Courses Expansion

satellite campuses of the JFU, which naturally will bring up further RTI command and control discussions. Instructors, professors and guest lecturers can do presentations at RTI campuses. virtually saving RC students travel time and money.

Classes and learning modules can be videotaped for use by the individual Soldier using distance learning at home or at his armory and for use by the RTIs during NCOES courses. Which electives and courses can be offered by distance learning (similar to online college courses) has not been decided yet, however once the JFU is stood up, it will further the educations of both active and RC Field Artillerymen.

Future JFU Impacts. The Fires CoE Senior ARNG Advisor is working with Doctrine and Training Directorate, Fires CoE, to develop concepts and ideas on how the JFU concept will enhance the education of our RC Soldiers.

The unmatched focus, drive, dedication and excellent performance by all ARNG officers, warrant officers, NCOs and Soldiers will allow us to conquer the challenges the FA community faces in reestablishing core competencies while continuing to support the current fight.

To do this, we must look at innovative, effective new training paradigms to train our ARNG FA Soldiers, such as re-emphasizing Field Artillerymen as the Army's integrators of both lethal and nonlethal fires; developing exportable training and education programs and simulations, and exploring the concept of the Fires CoE JFU as the Army's FA proponent and soliciting the support of the NGB and RTIs.

As the Era of Persistent Conflict continues, the ARNG FA, the majority of the Army's Artillery force, must maintain its aggressive path forward to achieve the same relevant lethal and nonlethal integration skills, weapon platforms, doctrine and strategies, and training paradigms that our active Army comrades have adopted. We must maintain proficiencies in FA core competencies as well as master the new strategic skill sets emerging to combat the hybrid threat.

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The World Wide Air and Missile Defense Symposium: 5 to 6 May

"The End of an Era —A New Beginning."

The 2009 World Wide Air and Missile Defense Symposium will be held at Soldier Hall, located in Hinman Hall, at Fort Bliss, Texas, from 5 to 6 May. The Symposium will celebrate 41 years of Air Defense Artillery at Fort Bliss, provide an overview of the Branch's current operational status and explore where the Branch is headed.

Tuesday, 5 May, begins with briefings, encompassing the State of the Branch and Army Air and Missile Defense Command overviews. We will have a recognition ceremony to award honorees for their dedicated service to Air Defense at Fort Bliss. The afternoon of the 5th includes working groups for active duty military personnel to discuss the future challenges to Air Defense training. The day ends with a formal, black-tie banquet at the Centennial Club with live music and dancing.

The Symposium concludes the following afternoon, Wednesday, 6 May, with a formal casing ceremony of the Air Defense School Colors. The Symposium is open to all allied, retired, active



and Reserve Component Soldiers of the Army Air Defense Artillery, Field Artillery and the Air Defense Marine Detachment.

For all registration and Symposium information, please visit https://www.bliss.army.mil/wwamds. Any individuals wishing to attend who have not received an invitation may register on the website.

2009 Fire Support Seminar: 2 to 4 June

"Integrating Fires to Address Hybrid Threats —A 21st Century Challenge."

The 2009 Fire Support Seminar will be held at the Reimer Conference Center in the Field Artillery School, Snow Hall, at Fort Sill, Oklahoma, from 2 to 4 June. Topics of discussion will include air—ground integration; lethal and nonlethal fires;



An M119 howitzer lights up the desert sky as Redlegs provide fire support to their maneuver comrades. (Photo courtesy of the Fires Center of Excellence, Fort Sill, Oklahoma)

Field Artillery past, present and future; and all that has been going on with the Branch since the last seminar. In the context of the hybrid threat, we will address solutions to the challenges that face the Field Artillery in the 21st century. We also will have a transition of authority (TOA) from Major General Peter M. Vangjel to Brigadier General Ross Ridge as the Field Artillery School Commandant, and we will conduct the grand opening of the new Field Artillery Museum.

Monday, 1 June, will be a session for the battlefield coordination detachment (BCD) community including the BCD commanders and their deputies, key personnel from Department of the Army, Training and Doctrine Command, Combined Arms Command, the US Air Force, Joint and Combined Integration Directorate and Capabilities and Development Integration Directorate.

Invitees from the 1 June session may attend the seminar. Joint, allied, retired, active duty and Reserve Component senior leaders of the Army and Marine Corps Field Artillery will receive invitations via email.

Information about the seminar is available on the Fires Knowledge Network (FKN) Homepage in the Fires Center of Excellence Conference Schedule Center at https://www.us.army.mil/suite/page/130700 or at http://www.mhli.org.



uring the major combat operations phase of Operation Iraqi Freedom (OIF) in March and April 2003, US Army Patriot air defense missile units were involved in two fratricides incidents. In the first, a British Tornado was misclassified as an anti-radiation missile and subsequently engaged and destroyed. The second fratricide involved a Navy F/A-18 Hornet that was misclassified as a tactical ballistic missile, also engaged and destroyed. Three "friendly" flight crew members lost their lives in these incidents. OIF involved a total of 11 Patriot engagements by US units. Of these, nine resulted in successful missile engagements; the other two were fratricides.

This article discusses some of the major factors that contributed to fratricides during OIF Patriot engagements as well as effective techniques for their mitigation. It also addresses how holistic training mitigations can be used to combat the

By Dr. John K. Hawley

piecemeal training practices of the past effectively, while having a positive impact on training and leader development for the future force.

In 2004, a team from the Army Research Laboratory (ARL) began looking into Patriot system performance at the invitation of the then Fort Bliss, Texas, Commander and Chief of Air Defense Artillery (ADA), Major General (MG) Michael A. Vane. MG Vane was interested in operator vigilance and situation awareness as they relate to the performance of automated air defense battle command systems. Situation awareness, in present usage, is defined as the perception of elements in the environment, the comprehension of their meanings and the projection of their statuses in the near future.1

MG Vane was concerned particularly by what he termed a "lack of vigilance"

on the part of Patriot operators along with an apparent "lack of cognizance" of what was being presented to them on situation displays with an ensuing "unwarranted trust in automation." The ARL project team spent most of the summer and fall of 2004 reviewing the OIF fratricide incidents and preparing an initial assessment report that was delivered to MG Vane later that year.

Our assessment was not to be just another exercise in "Monday-morning quarterbacking." Instead, the focus was to look into the deeper story behind the events leading to the OIF fratricides from a human-performance perspective and to identify actionable solutions. MG Vane's reference to lack of vigilance on the part of Patriot operators led to our work being referred to as the Patriot Vigilance Project. Results from ARL's initial assessment of the OIF Patriot fratricides were discussed in additional detail in an earlier article that appeared in both *Air Defense Artillery* and *Field Artillery* (FA) Bulletins.²

An Air Defense Soldier stands vigilant near a Patriot System. (Photo courtesy of Office of the Chief of Staff, Air Defense Artillery, Fort Bliss, Texas)

ARL's report to MG Vane recommended two primary actionable items to address the human dimension problems identified during the fratricide incident assessment. The first is to reexamine air defense battle command automation concepts to emphasize effective operator control—look into ways to mitigate situation awareness problems resulting from undisciplined automation of Patriot control functions.

The second actionable item is to develop more effective battle command teams. Reexamine the level of expertise required to employ systems, such as Patriot, on the modern battlefield. Although both of these topics are important, the discussion that follows focuses on the second issue, particularly as it relates to training and leader development for the future force.

Observing Patriot Unit Training. In late summer 2005, the ARL project team briefed MG Vane's successor, MG Robert P. Lennox, on the status and results of the Patriot Vigilance Project and follow-on work. Following that meeting, MG Lennox requested that ARL continue the project and work with the ADA community to implement selected actions. A major aspect of follow-on implementation was to serve as the Manpower and Personnel Integration (MANPRINT) evaluator during an operational test of a major software upgrade for the Patriot system. (MAN-PRINT is the Army's human-system integration initiative.) This upgrade was developed to address several of the Patriot system's deficiencies that were considered to have contributed to the unacceptable fratricide rate during OIF.

During the unit training period, from the fall of 2005 through the summer of 2006, we evaluated the unit's preparation for the upcoming test. Our observations regarding the training progress for the test unit sounded an alarm. Training was not progressing satisfactorily.

Training events were being completed, but individual- and crew-performance objectives were not being met. Many of the training issues identified during our follow-up to the initial fratricide inquiry were resurfacing because they had not been addressed adequately by training events in the test unit.

After reviewing these pretest training assessment results, we concluded that the real issue resulted from a failure to develop

necessary levels of operator expertise, as opposed to aggregated individual task proficiencies. In many complex, knowledge-intensive jobs, the whole defined as competent job performance is more than the simple sum of competent individual task performances.³

Developing Expertise. What is expertise, and how is it different from aggregated individual task proficiency? In present usage, the term expertise refers to a capability for consistently superior performance on a specified set of representative tasks for a domain.⁴ Expertise is a function of operator knowledge, skill, aptitudes and job-relevant experi-

ence. It also has been demonstrated that concentrating on the performance of individual tasks versus whole-job proficiency during training will not always result in the development of necessary levels of expertise as defined above.5

Given the centrality of user expertise in the emerging warfighting environment, an obvious follow-on question is, "How is such expertise developed?"Three training features generally are considered necessary for the development of expertise: 1) extensive deliberate practice (defined as focused, job-relevant practice) with expert feedback; 2) scenarios characterized by increasing variability and novelty that challenge routine skills; and 3) a focus on developing sense-making skills that facilitate an operator's ability to recognize when to shift from automatic processing ("rote drills") to critical thinking and problem solving.6

Adaptive expertise will develop as a natural consequence of the long-term application of this progressive instructional strategy. However, all practice is not equal. Developing expertise requires a hands-on learning environment and many hours of practice under the supervision of a coach or mentor. Such feedback-intensive training is referred to as deliberate practice.

How many hours are necessary? D.A. Norman asserts in his book, *Things that* Make Us Smart, that for any complex activity, a minimum of 5,000 hours of deliberate practice—two years of fulltime effort—is required to turn a beginner into an entry-level expert. Expert, in this context, refers to a user who has

developed the capability necessary to perform appropriately in a high-skill, knowledge-intensive job setting. Other research on the development of what are termed high-performance skills also supports this two-year rule.8

ADA Efforts to Implement These Concepts. Based on a convergence of results similar to those cited above, the ADA School at Fort Bliss concurred that a reexamination of air defense training strategies and practices was required. In addition to general agreement that a change in training rigor and instructional methods was necessary, the School identified an additional training

... to play a meaningful role in ensuring crew and unit readiness to perform, the new generation of leaders must know "what right looks like." Knowing what right looks like will require an increased emphasis on broad-based system and tactical expertise-not just superficial familiarity—during professional development.

> capability gap. This gap concerned the simulation capability available to field

> The School concluded that units might benefit from a capability to train fire control crews that supplemented their embedded training capability and better supported performance-oriented instructional methods focused on deliberate practice. The School identified an existing device, the Reconfigurable Tactical Operations Simulator (RTOS), as potentially fulfilling the need for a simulation capability to supplement units' integral embedded training capability. The RTOS is a part-task Patriot simulator and has been used since the late 1970s to support air defense exercises as well as experimentation and analysis. However, it had not been used explicitly as a training device.

> To begin exploring these issues, the ADA School organized what was termed the RTOS Operational Demonstration (OpDemo). The OpDemo was structured as a joint project involving the ADA School and an operational Patriot unit (5th Battalion, 52nd ADA). Its objectives were to demonstrate and evaluate modified instructional methods for use in unit training and assess the potential utility of an RTOS-like device to supplement unit training assets.

Results from the OpDemo indicate

that: 1) the RTOS (as an exemplar for a part-task, less-than-full fidelity training device) has the potential utility to support ADA unit training; 2) the training method focusing on deliberate practice was effective for the trial modules used; and 3) the overall training package was received well by participants.

Beyond these specific conclusions, the results indicate that the ADA School had a "green light" to pursue further development of an RTOS-like training device and modified instructional methods. Demonstration results also helped forge a general consensus among ADA decision makers and opinion leaders that the exercise was a success.

This development was important to maintaining the momentum for training reform initiatives because it helped offset the considerable resistance to less-than-full-fidelity training devices and changes in training methods that existed in some segments within the ADA community. As an added benefit, the training set-up used during the demonstration—the part-task device coupled with modified instructional methods—represented a partial prototype for a solution to the training deficiencies that contributed to

...Our Soldiers and leaders ... must be empowered with the ability ... to use these systems as leadership enablers, not leadership substitutes. ... If a bad decision is made, the excuse cannot be, "The network [or automated battle command system]

the Patriot fratricides and that showed up again during the run-up to the operational test.⁹

made me do it." LTC Samuel R. White Jr.

Results from the Patriot Vigilance Project and RTOS OpDemo coupled with other internal developments contributed to the ADA School's current concept for a Reconfigurable Table-Top Trainer and other performance-impacting changes. These latter developments include upgraded training programs and supporting systems, modified curriculum and courses, changes in organization (such as using highly-experienced warrant officers as part of the battle command team in the Patriot Engagement Control Station and Information and Coordination Central), and professionalization of selected career tracks within the Branch (such as the ADA fire control officer). All of these on-going initiatives are focused on developing "the level of expertise required to operate such lethal systems on the modern battlefield."10

Expertise and Leader Development.

The previous discussion focuses primarily on the training necessary to develop effective battle command teams. A variety of research indicates that effective crew and team leadership is a key factor in melding individual technical experts into high-performing teams. However, the Army has not thought of battle command team development as part of the traditional *leader* development process.

In view of the results cited above, should that traditional position regarding leader development be reconsidered? Do the ideas concerning the importance of expertise and how it is developed discussed in the previous sections also apply to the more general topic of leader development?

Perhaps the most concise and elegant answer to this question was provided by Lieutenant Colonel Samuel R. White Jr. (FA) in his response to my initial article on the human dimension lessons of the OIF Patriot fratricides (see the January-February 2006 edition of *Field Artillery*). The crux of White's position is summarized as follows.

"...we have to stop thinking of AFATDS [advanced FA tactical data system] and other ABCS [Army battle command system] pieces as something run by an 'operator.' AFATDS is a command and control system and should be con-

trolled by a leader who uses it to assess the situation, make decisions and direct actions. Yet in the past, we routinely put a very junior operator on the system who could set the machine up and run it well but couldn't leverage the C² [command and control] decision support capacities of the system....

"...Our Soldiers and leaders ... must be empowered with the ability ... to use these systems as leadership enablers, not leadership substitutes. ... If a bad decision is made, the excuse cannot be, 'The network [or automated battle command system] made me do it."

Based on results from ARL's four-year Patriot Vigilance Project, the ARL project team agrees with White's position that battle command systems cannot continue to be viewed as "something run by an operator." These systems are employed most effectively as leadership

enablers, and leaders must be trained to use them as such.

The ADA Branch is addressing this issue with its decision to put warrant officers back into the Patriot vans. Due to their extensive training and long experience in a unit context, ADA warrant officers typically acquire the expertise necessary to function effectively as part of the ADA battle command team.

All of this is well and good, but what about commissioned officers? Do these ideas apply to their development as well? An often-repeated mantra from the business world is that "Management is not content-free." Is it possible to command a technology-centric military organization effectively without a thorough understanding of how that organization carries out its basic mission?

The questions raised above are not particularly new. For example, at the turn of the last century, the so-called "Fisher Revolution" brought about by the introduction of *HMS Dreadnought* into the Royal Navy necessitated a parallel and equally radical reform of long-standing training and personnel institutions, which involved both officer and enlisted personnel. It simply was not possible to employ the technology packaged in the *Dreadnought* effectively without significantly better-trained crews and leaders than sufficed in the days of sail and cannon broadsides.

Later, during their development and application of the combined arms doctrine now known as blitzkrieg, the German Army emphasized upgraded officer technical training and experience, taking the position that "only a well-educated [officer] could appreciate the intricacies that chemistry, aeronautics and mechanical engineering had presented to the battlefield." In an era of even higher technology and network-enabled warfare, effective human-system integration combined with leadership skill development becomes even more critical to mission success.

The previous discussion should not be interpreted to imply that the Army should abandon or deemphasize traditional leader development activities in favor of technology-and system-oriented training and development for officers and other senior leaders. In his letter to the editor cited earlier, White concluded by commenting on the differences between the French and German orientations toward artillery operations in the opening stages of World War II. He cites work by F.O. Miksche, observing that German artillery



officers emphasized the needs of their supported organizations, while French gunnery officers were more focused on the technical than the tactical support aspects of fires planning.¹⁵

The lessons of White's historical caution are clear—competence in both the art and science of battle command is essential to success on the modern battlefield. The ARL project team supports the idea that traditional aspects of leader development training should be augmented along the lines suggested by White—the ability to employ battle command systems as leadership enablers. Empirical results from the Patriot Vigilance Project strongly support this position. Achieving the ends implied in our use of the terms "art" and "science" is the crux of the emerging leader development challenge.

A Patriot Advanced Capabilities (PAC)-3 launches during testing at White Sands Missile Range in New Mexico. Patriot is a high- to medium-altitude air defense system designed to intercept tactical ballistic missiles (TBMs) and "air-breathing" threats. (Photo courtesy of Lockheed Martin)

What Has to Happen? One of the most important observations coming out of the Patriot Vigilance Project is the significant challenge involved in maintaining crew and unit readiness for a high-technology, knowledge-intensive system like Patriot. This challenge is aggravated by the turbulent contemporary operating environment—frequent deployments, the impact of the Army Force Generation process and the like. Leaders at all levels are the key to meeting this challenge.

However, to play a meaningful role in ensuring crew and unit readiness to perform, the new generation of leaders must know "what right looks like." Knowing what right looks like will require an increased emphasis on broad-based system and tactical expertise—not just superficial familiarity—during professional development.

In a technology-dominated organization, leader development is about more than troop-leading skills. The ADA Branch already has started down this path with its definition of alternative career tracks for officers. However, one should not underestimate the difficulty of melding such concepts with the Army's traditional view of a leader's ultimate role—that of commander.

At the same time, the Army's formal institutions must recognize and support, rather than impede, the development of essential leader expertise. We already have noted that the current one-size-fits-all approach to officer and NCO promotion and retention must be modi-

fied to support the goal of raising leader expertise. Jobs other than command are essential to the organization's success, and these jobs often involve intensive training and development activities not particularly focused on the command track.

Similarly, the Army's personnel system will need to be reworked. Reformed training and leader development practices overlaid on current personnel assignment patterns might not produce desired results. The risks associated with failure to change are clear—the performance promise of the emerging generation of technology-intensive systems might not be met without significant changes in training, leader development and personnel management practices. The Defense Science Board already has cautioned, for example, that there exists an increasing risk that training failure might negate hardware promise.¹⁶

Dr. John K. Hawley is Chief of the Army Research Laboratory Human Research and Engineering Field Element at Fort Bliss, Texas. He recently served as Project Lead on the Patriot Vigilance Project, an Army effort to examine human performance contributors to Patriot-involved fratricides during Operation Iraqi Freedom. He currently works with the Air Defense Artillery (ADA) to implement and evaluate selected recommendations involving human-systems integration practices, test and evaluation methods, personnel assignment practices and operator and crew training. He was commissioned as an officer in the Field Artillery in 1968, and, later that year when the branches split, was assigned to ADA, serving as an ADA officer for two years. He holds a Ph.D in psychology from the University of North Carolina at Chapel Hill and is a member of The Honorable Order of Saint Barbara and is an honorary Patriot "Top Gun."

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TES AUTHOR'S GUIDE

ires, a bimonthly joint publication, is the professional bulletin for US Army and Marine Corps Field Artillery (FA) and US Army Air Defense Artillery (ADA) professionals worldwide.

We print the Chief of FA's/Chief of ADA's column (*Fires*—Mud to Space), articles from military and civilian subject matter experts; letters to the editor (*Fires* from the Field); interviews with Army, joint and combined leaders; and other features.

Approximately 40 percent of our readership is company-grade, both officer and enlisted, with the remaining 60 percent more senior Army and Marine personnel, Department of Defense (DoD) civilians, retirees, members of other branches and services, allies, corporate executives and our political leaders.

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One of *Fires*' objectives is to serve as a forum for professional discussions among the FA, ADA and fires community members. Therefore, an author's viewpoint or recommendation does not have to agree with those of the Branches, Army, Marine Corps or DoD, but the article's contents must be logical and accurate; address disadvantages as well as advantages; promote only safe tactics, techniques and procedures (TTPs);

and include no classified or operational security information (OPSEC).

- If an author is writing about the past, he should analyze the events and show how they apply to the FA and/or ADA professional today—not just record history. If the article identifies current problems, solutions must be proposed. (An author may identify problems without proposing solutions only in a letter to the editor.) In addressing the future, he should explain his points and their implications clearly.
- An article must be clear and concise with its thesis or bottom line statement near the beginning of the article. The body of the article must contribute systematically to that thesis. When writing, an author must think like FA and/or ADA professionals in the field: "What is it?" "What will it do for me?" and "How do I implement it?" (or "When will I get it?").

Submissions/Specific Guidance. Include:

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SFC Dennis Howard, A Battery, 2nd Battalion, 320th Field Artillery Regiment (A/2-320 FAR), 1st Brigade Combat Team (BCT), 101st Airborne Division, shakes hands with an Iraqi boy in Dor Al Sinah, Iraq. The A/2-320 FAR is one of hundreds of military units that receives the *Fires* Bulletin. (Photo by 1LT Jonathan J Springer, 2-320th FAR Public Affairs Office)



Laying the Foundation for Democracy in Nuremberg PART TWO OF TWO

Some of the techniques and theories used to denazify Germany in the aftermath of World War II (WWII) reverberate today in the effort to remove insurgents from power in Iraqi and Afghanistan.

This is the second of two parts about the denazification of Germany. This part describes reeducating the Germans in Nuremberg to convince them of the necessity of abandoning their militaristic and Nazi ways for democratic ways.

The first part, published in the October-December 2008 edition of Fires, described the initial, faltering steps taken by the Americans and Germans to identify and remove *Nazis from power while still trying to rebuild the country.*

n 1945, the Americans embarked upon a crusade to eliminate Nazism in Germany as a part of reforming the country in the aftermath of the war. To cleanse Nuremberg, a bastion of Nazism, American military governors implemented an ambitious two-prong denazification program.

Besides removing or excluding former active Nazis from positions of authority and trying to restore the pre-1933 social order, the Americans pushed a determined reeducation program to democratize Nurembergers. Through the schools, youth groups, adult organizations and the media, they planned to convince the German people to abandon their Nazi ways and convert to a democratic lifestyle. If successful, the focus of reeducation, which lay at the heart of occupation, was designed to purify the people of their pro-Nazi attitudes and behaviors and permit a democratic, peace-loving people to rise like the fabled phoenix out of the ashes of World War II.

By Dr. Boyd L. Dastrup

Education. Upon entering Nuremberg in April 1945, Nuremberg's military government detachment, under Lieutenant Colonel Delbert C. Fuller, and the understaffed Education and Religious Affairs Branch of the US Forces, European Theater (USFET), (later renamed Office of Military Government, US Zone or OMGUS), promptly began to implement American reeducation policies. As directed by Joint Chiefs of Staff Directive 1067, they closed all schools and created a position of superintendent of schools to break much of the power that the State of Bavaria had had over education for years and to imitate the American model of local jurisdiction over education.1

The Americans selected Dr. Hans Raab as the superintendent on 25 May 1945, from three candidates submitted by Nuremberg's Lord Mayor Julius Rühm, after they had determined that Raab Heinrich Hollands (left), editor, "Aachener Nachrichten," and BGEN Robert A. McClure watch the first licensed newspaper come off the press. (Photo courtesy of The Center of Military History, US Army, reprinted from The US Army in the Occupation of Germany 1944-1946)

was politically clean and amenable to American plans for occupation. Later, they chose Otto Barthel, who also was untainted by Nazism and a teacher by profession, as the assistant superintendent. Working as a team, Raab and Barthel were responsible for running the schools on a daily basis while American military governors acted in a supervisory capacity to ensure that American goals were implemented.²

Despite a vehement outcry by Raab who wrote a letter to the Americans on 19 July 1945, about the disruption caused by the denazification of teachers, Nuremberg's military governors diligently continued their purge that had started in April 1945. Before reopening the Volksschulen (elementary) and secondary schools, Fuller forced all teachers to complete the lengthy Fragebogen (questionnaire) that detailed their activities during the Third Reich to gauge their political reliability and keep Nazi teachers out of the classroom which would undercut American political interests.

Teachers. This process produced fruits quickly. Between April 1945, and September 1945, the Americans dismissed more than 700 elementary school teachers for Nazi activities, leaving only 196 to teach more than 20,000 elementary-aged children. This process simultaneously removed secondary teachers with Nazi affiliations and unfolded as the Americans pushed to reopen the schools, using warehouses and other facilities as emergency classrooms as necessary.3

In October 1945, Colonel Charles H. Andrews (who succeeded Fuller) addressed the impact of denazification, implicitly acknowledging Raab's concern. He reported that 105 people had applied for teaching positions in the city's elementary schools, but that only 23 had been found to be politically reliable. Out of desperation, he hired retired teachers (who had been forced out of teaching under the Nazis) and people without any formal training.4 "Hiring ... persons with little or no pedagogical training ... has made possible the opening of many schools ... but the expedient does not proffer a permanent solution to the problems of the teacher shortage," recorded the Americans.5

Printers assemble denazified textbooks. (Photo courtesy of The Center of Military History, US Army, reprinted from *The US Army in the Occupation of Germany 1944-1946*)

Along with the lack of proper school facilities, the removals and the shortage of politically acceptable teachers created classrooms with a ratio of one teacher to 80 to 100 students, obstructing effective learning.⁶ Although the removals were disruptive, the Americans found them to be indispensable. As the Americans observed in 1947, these "corrective" or "house-cleaning" measures were destroying the Nazi influence in the schools and rebuilding education along democratic principles.⁷

Faced with insufficient numbers of teachers with acceptable political views and professional credentials, the Americans restructured German teacher education to create a democratically-oriented teacher corps. The Americans opened a teacher training school, near Nuremberg, for women and 24 coeducational teacher training schools throughout Bavaria in 1945 and 1946. By 1946, the newly founded programs began producing teachers, who were "properly groomed" in the virtues of democratic institutions, were ready to enter the classroom to serve as role models, were prepared to tutor the youth in the democratic style of learning with lively debate and free exchange of ideas and thought, and were geared to teach the moral superiority of democracy over Nazism.8

Although the Americans valued subject matter expertise and qualifications, they clearly treasured the person's political orientation even more. Because the teachers would be on the frontline in the battle to instill democratic ideals in the city's youth, the Americans could not compromise their objective of a democratic school system to expediency by having politically unreliable teachers. This meant developing teachers who would serve as the paragons of democratic principles and requiring all teachers to sign a certificate showing their support for American occupation objectives before being hired.⁹

Textbooks. Without acceptable textbooks, creating a democratic teacher corps would be in vain. As a temporary measure, American officials vetted pre-1933 and other existing textbooks, eliminating objectionable material on racism, nationalism, authorianism and other controversial topics. ¹⁰ Although they did not burn books, the Americans banned any pro-Nazi, racist or militaristic books, such as Alfred Rosenberg's Myth of the Twentieth Century, and



replaced them with Fred C. Kelly's *Daniel Boone*, Felix Frankfurter's *Mr. Justice Holmes and the Supreme Court* and other comparable books.

The replacement books suggested that the Americans consciously selected literature which favorably portrayed individualism, representative government, cooperation, freedom of speech, freedom of religion and tolerance (the basis of a democratic society) and encouraged good citizenship. Above all, the textbooks had to convey the American concept of individualism to counteract the German emphasis upon obedience to authority because this had led to blind allegiance to the Nazis. Fearing the reemergence of Nazi and German authoritarianism and the fragility of democratic habits, the Americans had no other choice but to choose school textbooks.11

Soon, the emergency situation gave way to a more permanent solution. In 1946, the Americans created the Curriculum and Textbook Center, later renamed the Educational Service Center in 1948, to help German educators write democratically oriented textbooks. Even though the center served as a watchdog through 1949, to censor unacceptable material as required, the Germans assumed greater control over the content of their textbooks after 1947, when they started introducing their own. Approved by the Americans, German-written textbooks decried authoritarianism, racism. militarism and extreme nationalism and were free from the taint of Nazism to serve as a vehicle to convert the youth to democracy. 12

Curriculum reform accompanied picking appropriate books. OMGUS emphasized, "... it is imperative that the whole school program make a significant contribution to the democratic experi-

ence...."13 Although the city's youth took the typical classes in language, health, music, literature, social science and other academic subjects, they participated in the democratic process as a means of wiping out the "fanatic and consuming creed" of Nazism. Directed by the Americans, students organized classroom committees, discussion groups, clubs and community service projects, elected officers to lead those groups and studied about representative government, religious toleration and other similar topics. For the Americans, education was more than solely a means of imparting knowledge. It also served as a vehicle to remedy the ills of society by passing on values deemed to be important to inculcate in the vouth.14

The School System. Upon entering Nuremberg, the Americans found a two-track school system that required restructuring if they were to democratize the youth. All German children attended four years of elementary school (Volksschulen). Those (approximately 10 percent) who passed a rigorous test at the end of the fourth year attended one of several different types of secondary schools: the humanistic Gymnasium, the Oberrealeschule with its more modern curriculum or the Aufbauschule for late bloomers. These schools furnished students with a demanding curriculum that emphasized classical languages, prepared them for the university, charged fees and tuition to restrict attendance to the affluent and preserved a classbased society.

The less affluent and intellectually gifted youths continued their education in elementary school for another four years until they were 14, and then attended a vocational or technical school to learn a trade. These students received little preparation for good citizenship in

a democratic society and faced insurmountable odds transferring to the secondary school regardless of subsequent test scores. From the American perspective, this educational system fostered inequality of opportunity, restricted university attendance to a select few, prevented subsequent scaling the socioeconomic ladder, was undemocratic and had to be abolished.15

Confronting this rigid class-based education system in Nuremberg, Fuller and Andrews set out to erect one patterned after the American school system as directed by their superiors. Upon leaving the elementary school, all students would enter a tuition-free secondary school where a core of subjects and electives on the virtues of democracy would be offered. According to American military governors, only a school system replicating the American system would facilitate shaping the minds of the youth along acceptable lines. No stone could be left unturned in the fight to overcome Nazi ideology which was a "noxious distillation of militarism and racial myth combined with an extreme and irrational nationalism."16

Yet, the Americans never got the Nurembergers to go beyond free books and tuition for the secondary schools. Strong opposition prevented further reform and left Nuremberg with a twotracked school system—one that led to the trade school after the elementary school and one that led to the secondary school and eventually the university—to perpetuate an elitist class system.17

Recognizing the limitations of reforming the schools, Nuremberg's military governors tackled youth groups. They outlawed Hitler youth groups and paramilitary youth organizations, banned wearing uniforms, insisted on voluntary membership in youth groups to end the compulsion of the Nazi years, prohibited former active Nazis from serving as youth leaders and nurtured American-style youth groups. 18 All youth groups had to promote the virtues of democracy and reinforce classroom lessons about democracy. Through sports and leisure time activities, the Americans hoped to instill the value of teamwork and sportsmanship in Nuremberg's youth as they were doing with their own in the US.¹⁹

By stressing democratic principles as a vital part of sporting activities and youth groups, American military governors in Nuremberg reaffirmed that democracy was more than a political system of representative government. It was an entire way of life where the freedom

of association, freedom of speech, and tolerance were key elements.20

In December 1948, Lieutenant Colonel James C. Barnett, the Director of Military Government in Nuremberg from 1946 to 1948, found reeducation in the schools and youth groups to be succeeding. The youth groups, for example, elected leaders, created committees and freely debated public issues without the fear of retaliation from radical groups. Three years after the war, Barnett saw progress instilling democratic ideals in the youth.²¹

For the Americans, reeducating the vouth formed the heart of denazifying Germany. Youth between the ages of six and 14 years of age had lived their entire lives under National Socialism, had been intensely indoctrinated and were the most vulnerable. To undo the damage of the Nazi years, Fuller, Andrews, Barnett and other military governors removed former active Nazis from school faculties, reformed the curriculum, instituted a new democratically oriented teacher education program, ensured that the appropriate books were available to the youth and tried to eliminate the two-track education system.

Although these initiatives created the conditions for democratically-oriented youth to grow and mature and started the process of erasing years of Nazi influence, Alonzo C. Grace, the Director of Cultural Relations for OMGUS, found them to be lacking.²² In April 1949, as American military occupation came to an end, he wrote, "There is no reason to believe that, after 12 years of indoctrination in Nazi ideology, German youth has accepted the democratic ideal. Constant

care and supervision become necessary, therefore, to assure a democratic future for the country."23 Reeducating the vouth had to continue into the foreseeable future.24

Reeducating Adults. American military government officials also designed grand plans to reeducate the adults, but this effort was clearly secondary to reeducating the youth.²⁵ By employing trade unions, churches, Volkshochschulen (adult education schools), town hall meetings, forums and other adult organizations, they pressed to reverse the "misinformation so adroitly supplied the Nazis."26

Activism. During a period of two vears beginning in 1946, Barnett and other Americans used carefully written

lectures and well-planned discussions to impress upon the adults the importance of democratic values, the imperative of freedom of speech and the necessity of participating in public life and eschewing radical ideologies. Even Americansponsored German speakers taught about the obligation of the people to prevent the rise of another Hitler and chastised the adults about being politically complacent in the past, implying that such inaction had led to the rise of the Nazi Party. Therefore, they bore some responsibility for the Nazi years and had to do their part in reshaping the city's values.²⁷

While director of military government in Nuremberg from late 1948 to early 1949, Charles M. Emerick reinforced this line of thought and pushed for political activism to avoid another Hitler. Emerick explained that a democracy gave people the right to say what they desired without being harassed by the government, produced a government that existed to help the people and not to oppress them, and emphasized Germany's ability to join the democratic countries of the world. Basically, Emerick and his predecessors served as ambassadors of democrat values; advertised it as the best political, economic and social system in the world; and offered the people hope for the future.²⁸

Answering an OMGUS questionnaire in 1948, American military governors wrote that the forums, town meetings and other means of reeducating the adults were having success. After three years of occupation, "they are less susceptible to the influence of demagogues playing on nationalist and racist sentiments and realize if their government is not repre-

Some of the techniques and theories used to denazify Germany in the aftermath of World War II (WWII) reverberate today in the effort to remove insurgents from power in Iraqi and Afghanistan.

> sentative it is possible to replace those officials who no longer represent the will of the majority...."29

> Media. Since the schools, town meetings, forums, trade unions, adult education schools and other venues could not reach everyone, the Americans simultaneously harnessed the city's media to serve as an arm of reeducation. Upon occupying Nuremberg, the 6870th District Information Control Command (DISCC), commanded by Colonel Bernard B. McMahon from his headquarters in Munich, closed



down the local newspaper (the Nuremberg *Nachrichten*), the radio station and the movie theaters; removed former active Nazis from responsible positions; and licensed and registered all applicants for jobs to ensure that only politically acceptable people were hired to eliminate the source of the evil and establish the conditions for good to arise.³⁰

The 6870th DISCC launched the first phase of information control in April 1945, by publishing a newspaper to spread the American version of the news. The first postwar newspaper appeared in Nuremberg in September 1945, edited by Hans Habe—a major in the US Army and a former Austrian newspaper editor who had fled Austria for France after the Anschluss of Austria in 1938, and made his way to the US to become a citizen in 1942. Using the best ink and paper available as a means to attract readers, the biweekly newspaper extolled the virtues of the American democratic way of life and the evils of Nazism, as did other American-ran newspapers in the American zone of occupation.³¹

Habe's editorship proved to be short-lived because of the American policy of replacing American editors with politically reliable Germans as soon as possible in the drive to launch the second phase of information control of creating a German-ran media. After an intensive search for Habe's replacement, the Americans finally selected Dr. Josef Eduard Drexel to be the Nachrichten editor. Because Drexel had been imprisoned by the Nazis, the Americans found him to be sympathetic to their cause of spreading democratic ideals.

On 11 October 1945, he published the first edition of the paper with the initial printing press being located in Zirndorf, a small village near Nuremberg, because he could not find one in Nuremberg and later relocated the paper's operations to Nuremberg in 1946, upon finding a

suitable press there. Although he had the freedom to run the newspaper as he desired, the 6870th DISCC limited freedom of the press—a sacred right in the US. The Americans warned him about violating American military government policy and attacking democratic ways.

If Drexel printed unfavorable articles, his newspaper could be closed down. Through a concentrated effort the 6870th DISCC and Drexel, who certainly was amenable to American goals, employed the *Nachrichten* as a vanguard of democratic thought in the city and the region by being an outspoken opponent of Nazism and after 1947 communism.³²

In the meantime in September 1945, the Americans reopened the city's radio station under their management after removing former active Nazis and broadcasted programs that constructively portrayed democracy and bombarded the people with the evils of Nazism. This type of programming fed the Germans a steady diet of information in 1945, and early 1946, to influence their attitudes and alter behavior.³³ Even after turning over operation of the station to the Germans in June 1946, and subsequently allowing it to join a network of German radio stations, the Americans still exercised pre-broadcast censorship to ensure adherence to OM-GUS directives.34

Likewise, the Americans purged the movie industry. They licensed only politically reliable managers and owners of movie theaters in Nuremberg, approved what films could be shown, and permitted KALI movie theater and the museum to reopen in December 1945. Because of the limited number of acceptable German films, city residents viewed *How Green was My Valley, Our Town, Two Years before the Mast, Mr. Deeds Goes to Town* and others.

According to military government officials, *The Best Years of Our Lives*, a movie

An author submits a manuscript for Information Control Division (ICD) clearance. (Photo courtesy of The Center of Military History, US Army, reprinted from *The US Army in the Occupation of Germany* 1944-1946)

about returning World War II veterans and their challenges attracted the largest audiences. Without exception, these movies and others depicted the vitality of democracy, individualism and other democratic values to convince the Germans to give up their past behavior. Knowing that the Germans would be hungry for entertainment to escape from the rigors of postwar life, the Americans even adapted movies to serve their interests.³⁵

For the most part, the Americans accomplished their objectives for the media in 1945-1946. They destroyed the existing media and laid the foundations for a new one to arise. Politically acceptable people occupied positions as editors, publishers, reporters and directors of news agencies, radio stations and movie theaters. The Allied Authority Directive Number, published in October 1946, gave the Germans the right to editorialize and criticize occupation policies in the media. But the Americans still retained the power of censorship, if required, through 1949, when occupation ended.³⁶

Making few exceptions to occupation directives, Nuremberg's military governors waged war on the city. Applying denazification directives vigorously, American military governors eagerly removed former active Nazis and replaced them with people amenable to their postwar goals. Once the right people were in place with some former active Nazis being included to use their technical skills, the Americans employed the schools, youth groups, adult organizations and media to change behavior, democratize and undo the elaborate machinery of "thought control" created by the Nazis.³⁷

Fearful of the Nurembergers' inability to cleanse themselves voluntarily of their Nazi and militaristic ways, the Americans paradoxically relied upon authoritarian measures and upon censorship in their drive to reeducate the people. Ironically, a democratic life style began emerging by 1947, as evident by the mock elections in schools and youth groups, the growing tolerance for differing opinions, the acceptance of individualism and dignity of the individual by youths and adults, and the willingness of the new leadership in the media, schools, youth groups and adult organizations to model democracy as the preferable lifestyle.

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Soldiers of the 1st Battalion, 108th Field Artillery (1-108 FA), 56th Stryker Brigade Combat Team (SBCT), calibrate their M777 howitzer at Camp Buehring, Kuwait. The unit, part of the 28th Infantry Division, Pennsylvania Army National Guard (ARNG), is the only SBCT in the ARNG and was the first FA battalion to receive the weapon. (Photo courtesy of 1-108 FA)