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Shaping Fires for 2020: Fires in Support of America's Force of Decisive Action

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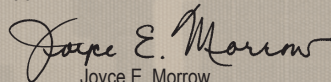
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By Shirley Dismuke

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PURPOSE: Founded in 2007, *Fires* serves as a forum for the professional discussions of all *Fires* professionals, both active and Reserve Component (RC); disseminates professional knowledge about 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 branches, both active and RC, all of which contribute to the good of Army, joint and combined forces, and our nation.

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U.S. Marines reload after firing a 155 mm shell from an M-777 howitzer during a combined arms live-fire exercise in Egypt. (Photo by Lance Cpl. David Castillo, U.S. Marine Corps)



regiment and battlefield coordination detachment (BCD) headquarters; 13 per FA/Fires battalion/squadron; 3 per fire support element (FSE), Fires and effects cell (FEC), effects coordination cell (ECC) fire support cell (FSC), and separate battery or detachment; 2 per fire support team (FIST); and 1 per Master Gunner. Free copies to Army ADA units: 7 per air and missile defense command (AAMDC) and ADA brigade headquarters; 13 per ADA battalion; and 3 per air defense airspace management cell (ADAM) and separate battery or detachment. The FA and ADA Schools' departments, directorates and divisions each get 2 copies. Other Army branch and US armed services units/organizations and US government agencies that work with FA or ADA personnel, equipment, doctrine, tactics, training organization or leadership issues may request a free copy—including, but not limited to—ROTCs, recruiting commands, libraries, attaches, liaison officers, state adjutants general, public affairs offices, military academies, laboratories, arsenals, major commands, etc. Contact *Fires* at <http://sill-www.army.mil/firesbulletin/>.

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Shaping Fires for 2020

Fires in Support of America's Force of Decisive Action

By **MG Mark McDonald**

Commanding General of the Fires Center of Excellence and
Fort Sill, Okla.

As I begin my first Forward in our Fires Bulletin as the new Commanding General of Fort Sill, I want to say how much of a pleasure it is to come back home to the Fires Center of Excellence and be afforded the opportunity to once again work with some of the best and brightest our Army has to offer. Fort Sill is truly at the cutting edge of change as we focus on shaping Fires for 2020 and our role of Fires in support of decisive action.

The state of Fires is a reflection of our Army at large - we are a force in transition. The past 10 years of continuous conflict, have created adaptive leaders able to maneuver in non-traditional missions at a rapid pace, which is evidence of the high caliber men and women serving in our all-volunteer force.

After the completion of our 2012 Fires Seminar, I believe more than ever that our Fires leaders have been at the forefront of executing the missions asked of them and performing tasks for which they were originally not trained—and they have done a tremendous job. Our Fires Soldiers have gained an enormous amount of firsthand knowledge in terms of counterinsurgency, foreign military training and provincial reconstruction. What many of them have not had is the opportunity to exercise their core competency skills, and this was addressed on multiple levels at our Fires Seminar.



One of the top priorities discussed during the seminar was training our leaders in mastering our core competencies and preparing them for the changes to come. More than a decade of war has driven the development of Fires Soldiers to fight in a different environment. This long period has seen the growth of Soldiers, now mid-level officers and NCOs in positions of leadership, that need to understand how to train and fight with the core proficiencies in which they are meant to do. This issue of the Fires Bulletin discusses topics raised by the Training and Doctrine Command (TRADOC) Commanding General, GEN Robert Cone, and addresses strategies we can employ to fill the existing gaps. From concepts, capabilities, and leader development, our Fires Center of Excellence is in step with TRADOC in terms of ensuring our Soldiers are trained and equipped to support the total Army in whatever fashion they are

needed, including the hybrid threat type battlefield, which we will continue to encounter for the foreseeable future.

Much of our emphasis will be on building strong and agile leaders, diversified as Fires coordinators with a broader understanding of all the capabilities available to them. We can't afford to lose the knowledge we have gained in our ongoing war on terror in terms of unconventional conflicts, but we must also prepare for a variety of other tactics the enemy will use in addition to the future possibility of a high-intensity conflict with forces in Middle East or Asia-Pacific regions. What we must now do is ensure that our Fires forces are manned, equipped, and trained to defeat the threat on any battlefield.

We must also examine the effectiveness of the models used in the last decade and be honest with ourselves if they have or have not produced Fires leaders who are competent and confident in their ability to support the Army with flexible, accurate, and timely Fires in support of offensive and defensive operations.

The Army is on the right path to effect these changes to our force structure. Our desired end state of 490,000 presents the challenge of creating a leaner force without sacrificing capability. Maintaining our ability to meet any threat, anytime, anywhere will require leveraging technology, enabling us do more with the requisite amount of personnel. Some of this will be achieved by eliminating overlap with our sister branches and working more on streamlined coordination between our respective lines of effort.

In our Fires community, we are also looking at ways we can eliminate redundancies and achieve a greater effect with efficiencies gained. Developing Fires leaders who are capable of supporting missions from 'mud to space' requires looking at how our Air Defense Artillery and Field Artillery leaders can be more interchangeable. Within our own schoolhouse, we need to find ways in which our two Fires branches could work together in a more integrated fashion and achieve a synergy not possible elsewhere.

The Fires Center of Excellence is already examining ways in which to capture and exploit these blended learning opportunities and give our Fires leaders the ability to understand the battlefield from different perspectives, thereby increasing knowledge and flexibility in response to multiple hybrid threats.

In our section on the Capstone Concept for Joint Operations Joint Force 2020, Lt. Gen. George Flynn, U.S. Marine Corps, also highlighted other areas in which we will be making great strides with the future Fires force. Our current battlefield is no longer constrained to simply air, land, and sea, but also contains space and cyberspace.

The speed at which the environment changes, must be met with equally rapid responses by our force. Our ability to monitor multiple threat environments, react to any threat, and focus decisive force to the greatest point of friction at the speed of the NET will be key to our success as a flexible fighting force of the future.

Flexibility, integration, and education will be the focus the Fires community will be looking toward to achieve our goals by 2020. We are looking at ways to design Fires cells with all aspects of coordinated Fires within command posts. To that end, we are exploring ways to incorporate all Fires leaders into the more traditional Fires tactical operations centers (TOCs), enabling coordination with assets such as unmanned aerial drones, electronic fires (to include microwave and laser technology), and more.

Developing Fires leaders who are capable of supporting missions from 'mud to space' requires looking at how our Air Defense Artillery and Field Artillery leaders can be more interchangeable.

It is an exciting time to be a part of Fires. With the emerging capabilities in precision Fires, integrated smart phone technology, new defensive weapon systems such as C-RAM, the possibilities are intriguing. As we move forward and transition from the current conflict to the Asia-Pacific region, we know there will be significant

challenges to the conventional way of fighting our nation's wars in the future, but our Fires community has always risen to any challenge. We have always adapted to new ways of thinking and quickly integrated new ideas, techniques, technology, and tactics to redefine the battlefield in a way that creates an advantage for our Army and our nation.

I am very proud to serve as the Chief of Fires, and look forward to working through all the challenges, and enjoying all the successes we will achieve. By understanding our current strengths and weaknesses, and anticipating the battlefield of tomorrow, we can take the necessary steps to ensure that the future of Fires in 2020 is a bright one indeed.

Fires Strong!

Fires Mud to Space

Air Defense Artillery in Step with the United States Priorities for 21st Century Defense

By **BG Daniel Karbler**

Commandant of the U.S. Army Air Defense Artillery School, Fort Sill, Okla.

“This country is at a strategic turning point after a decade of war and, therefore, we are shaping a joint force for the future that will be smaller and leaner, but will be agile, flexible, ready, and technologically advanced.”

**—Secretary of Defense
Leon Panetta**

As we have ended combat operations in Iraq and begin to draw down in Afghanistan, recent remarks by senior leaders and the publication of key strategy documents outline a shift in orientation of the joint force that increases emphasis on the Asia-Pacific region, but sustains our global presence in the Middle East and Europe, strives to build partnership capacity, and protects the homeland. This evolving shift is needed to sustain the United States’ global leadership and it requires a joint force that is versatile, responsive, decisive and prepared for an increasingly competitive and unpredictable security environment. For the Army, this requires



us to remain operationally adaptable and decisive for a range of missions to include regular and irregular warfare, homeland defense, counter weapons of mass destruction defense, air and missile defense and other missions. In short, the U.S. Army must provide depth and versatility to the nation,

be responsive to combatant commanders, and enable our joint force partners.

The 2012 Fires Seminar held at Fort Sill, Okla., was a gathering of Fires community senior leaders, which resulted in thoughtful discussion regarding how the Air Defense Artillery (ADA) is currently postured, the substantial demand for air and missile defense forces by the geographic combatant commands, future required capabilities, and the tremendous achievements of the ADA — from Army air and missile defense commands to ADA batteries, both active component and National Guard. In the ‘State of the Air Defense Artillery’ presentation, I described how the ADA is already ‘in step’ with shifting strategic priorities, and will remain fully engaged in executing vital missions in support of the United States’ national interests worldwide. The following is an around-the-world tour of where and how the ADA is ‘on point’ serving our nation

Asia-Pacific.

“Accordingly, while the U.S. military will continue to contribute to security globally, we will of necessity rebalance toward the Asia-Pacific region.”

-General Raymond Odierno in the document, Chairman’s Strategic Direction to the Joint Force.

U.S. economic and security interests are inextricably linked to peace and stability in the Asia-Pacific region. The rising economic and military power of China and other nations in the Western Pacific, East Asia, and the Indian Ocean area requires increased focus by U.S. leadership assuring regional access and the free flow of commerce that is so vital to our national interests. China has embarked upon unprecedented modernization of its military, and has gained the capability of flexing its muscles throughout East Asia and the Western Pacific. Chinese strategic intentions, however, are as troubling as they are ambiguous. Strategic intentions aside, it is clear China may one day possess the ability to limit or prevent U.S. military forces from operating freely in the Pacific.

Also unsettling, the continued North Korean development of long-range ballistic missiles and nuclear capabilities, keeping tensions on the Korean Peninsula at elevated levels, all of which pose a direct threat to the U.S.

94th Army Air & Missile Defense Command (AAMDC). Headquartered at Fort Shafter, Hawaii, the mission of the 94th AAMDC is ‘in step’ with the shifting

strategic direction of the U.S. to the Asia-Pacific. It plays a key role in providing deterrence against potential adversaries with substantial ballistic missile capabilities and it provides air and missile defense (AMD) mission command and AMD forces in support of five operations/concept plans. It controls the Army Navy/Transportable Radar Surveillance or AN/TPY-2 Radar in Shariki, Japan, that is vital to the ballistic missile defense of the homeland and key U.S. interests in the Pacific. It also provides for the training readiness of the 35th Air Defense Artillery Brigade headquartered at Osan Air Base, South Korea, whose mission it is to provide ballistic missile defense of critical assets on the Korean Peninsula. Within the training readiness authority of the 35th ADA Brigade, is the 1st Battalion, 1st Air Defense Artillery (Patriot), headquartered in Okinawa, Japan, which defends critical assets vital to U.S. interests on that strategically important island. The 94th AAMDC participates in a robust and rigorous exercise program that includes 13 joint and combined annual exercises to prepare for its AMD mission, facilitate bilateral and combined training pursuant to U.S. defense treaty obligations, and to promote theater security cooperation.

Middle East.

“Our defense efforts in the Middle East will be aimed at countering violent extremists and destabilizing threats, as well as upholding our commitment to allies and partner states. Of particular concern are the proliferation of ballistic missiles and weapons of mass destruction.”

-General Raymond Odierno in the document, Chairman’s Strategic Direction to the Joint Force

The Arab awakening that sparked the overthrow of regimes in Tunisia, Libya, Egypt, the on-going civil war in Syria, the decades-old strife between the Palestinians and Israel, the rise of violent non-state actors such as Hezbollah and Hamas, the continued threat of Al Qaida and its splinter groups on the Arabian Peninsula continue to make the Middle East a powder keg that will challenge U.S. national interests for years to come. The most threatening is Iran’s nuclear ambitions and strategic aim to establish hegemony in the Persian Gulf and the wider Middle East. Iran’s sizeable military strength, to include its naval and ballistic missile forces, pose a

significant risk to peace and stability among Persian Gulf states and in particular the free flow of oil through the Strait of Hormuz.

32nd Army Air & Missile Defense Command. Headquartered at Fort Bliss, Texas, the mission of the 32nd AAMDC is also squarely in stride with U.S. strategic priorities in the Middle East as it conducts combined and coalition air and missile defense operations in support of U.S. Central Command to deter the ballistic missile threat posed by Iran, and to defeat Iranian missiles if deterrence fails. The 32d AAMDC is assigned to United States Forces Command and it is responsible for training and readiness of the 108th ADA Brigade at Fort Bragg, N.C., the 31st ADA Brigade at Fort Sill, Okla., the 69th ADA Brigade at Fort Hood, Texas, and the 11th ADA Brigade at Fort Bliss, Texas. The 32d AAMDC conducts AMD force generation and sustains forward deployment of an ADA brigade headquarters in Qatar, and Patriot battalions in Kuwait, the United Arab Emirates, Bahrain, and also Qatar under the operational control of Army Central Command. It is also responsible for training and preparing for employment the Army's newest missile defense weapon, the Terminal High-Altitude Area Defense (THAAD) system, of which there are two batteries stationed at Fort Bliss.

Europe.

“The United States has enduring interests in supporting peace and prosperity in Europe as well as bolstering the strength and vitality of NATO, which is critical to the security of Europe and beyond . . . the United States will maintain our Article 5 commitments to allied security and promote enhanced capacity and interoperability for coalition operations.”

-From: Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense

The U.S. has maintained a military presence on the European continent since World War II, and despite the defeat of communism and the fall of the Iron Curtain, American interests in Europe endure. European economic stability and regional security is critically important to the U.S. economy as Europe is collectively our largest trading partner. Europe, like the U.S., is also threatened by the proliferation of ballistic missile technology that may one day place the European continent at risk of ballistic missile attack.

10th Army Air & Missile Defense Command. Headquartered at Rhein Ordnance Barracks, Germany, the 10th AAMDC is assigned to the United States Army Europe. Within the context of U.S. commitment to NATO's European Phased Adaptive Approach that will provide credible ballistic missile defense for both the U.S. homeland and our NATO allies, and directly in support of U.S. strategic priorities, the 10th AAMDC provides mission command and sensor management functions of AN/TPY-2 radars in support of United States European Command. Responsible for training and readiness oversight of 5-7 ADA (Patriot) and its mission to be ready for rapid deployment in support of EUCOM missions, the 10th AAMDC also promotes enhanced capacity and interoperability with Poland, a NATO ally, through rotation of 5-7 ADA Patriot batteries to Poland for AMD training and exercises.

U.S. Homeland.

“U.S. forces will continue to defend U.S. territory from direct attack by state and non-state actors . . . Homeland defense and support to civil authorities require strong, steady-state force readiness, to include a robust missile defense capability.”

-From: Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense

The terrorist attacks of 9/11 awakened the U.S. to existential threats that had not been in the consciousness of the American people since the height of the Cold War with the Soviet Union. The notion that America could be struck without warning with catastrophic consequences had long been forgotten. The scourge of terrorism remains and the U.S. must always remain vigilant, but a new threat—intercontinental ballistic missiles (ICBM) from North Korea and from Iran, has emerged. China and Russia maintain large ICBM capabilities, but what makes North Korea and Iran different is their unpredictability and penchant for using their burgeoning long-range ballistic missile capabilities as methods to gain influence and power through the demonstration of developing ballistic missile capabilities, posturing and attendant overheated rhetoric, but especially and more pointedly, the potential that they may one day be capable of arming ICBMs with nuclear payloads.

U.S. Army Space & Missile Defense Command / Army Forces Strategic Command (SMDC/ARSTRAT). Headquartered at Redstone Arsenal, Ala., SMDC/ARSTRAT conducts space and missile defense operations and provides planning, integration, control and



CSM Stephan Frennier, Third Army/ARCENT senior enlisted advisor, is briefed on the capabilities of the MIM-104 Patriot. Third Army remains committed to offering Soldiers outstanding leadership. Through visiting the region, Frennier is helping to motivate, mentor and guide Soldiers, the strength of our nation. (Photo by COL Christopher Calvert, U.S. Army)

coordination of Army forces and capabilities in support of U.S. Strategic Command to include strategic deterrence, integrated missile defense, and space operations. SMDC/ARSTRAT also serves as the Army operational integrator for global missile defense. In addition to the 1st Space Brigade, SMDC also has training and readiness authority over the 100th Missile Defense Brigade (Ground-Based Midcourse Defense) headquartered in Colorado Springs, Colo. The 100th Missile Defense Brigade is a multi-component headquarters with a contingent of active component Soldiers, but it is comprised mainly of full-time National Guard Soldiers. Very simply, their mission is to defend the nation against ballistic missile attack by manning ground-based midcourse defense stations of the 49th Missile Defense Battalion at Fort Greely, Alaska, and Detachment 1 at Vandenberg Air Force Base, Calif. Controlled by a mission command suite in Colorado Springs, crews are poised to launch interceptors to defeat ballistic missile threats to the homeland 24 hours a day, 365 days a year.

263rd Army Air & Missile Defense Command. Headquartered in Anderson, S.C., 263rd AAMDC executes vital AMD missions in support of the homeland, but specifically, short-range air defense of the National Capitol Region. In addition, the 263rd AAMDC maintains a Deployable Integrated Air Defense System (DIADS) Minimum Deployment Package that routinely supports national security sensitive events, such a major sporting events, national activities and celebrations, as well as, support to the executive branch. The 263rd AAMDC

also maintains training and readiness oversight of the 164th ADA Brigade of the Florida National Guard, and the 174th ADA Brigade of the Ohio National Guard, which collectively includes seven air defense battalions equipped with the Avenger air defense system and Sentinel Radar.

The Air Defense Artillery—from the AAMDCs, down to ADA brigades, battalions and batteries, and SMDC/ARSTRAT, are performing vital air and missile defense missions in support of geographic combatant commanders around the globe and in the homeland. Whether one looks to the Asia-Pacific region, the Middle East, Europe, or the U.S. homeland, the Air Defense Artillery is well postured for and is ‘in step’ with the evolving strategic priorities. Ambiguous Chinese ambitions, increased global and regional tensions, proliferating ballistic missile technology, the aspirations of North Korea and Iran to become nuclear states, all raise the specter that one-day air and missile defense forces may be called to respond decisively to defeat ballistic missile attacks. Continued focus on mission training and readiness by Army leaders, as well as steady Air Defense Artillery capability improvements, along with other joint partners will help our nation sustain global leadership for the 21st Century.

Editor’s Note: On July 9, 2012, COL(P) Fryc assumed the position of commandant of the Air Defense Artillery School and Chief of Air Defense Artillery.

Fires Mud to Space

Shaping the Field Artillery Force of the Future

By **BG Brian McKiernan**

Commandant of the U.S. Army Field Artillery School, Fort Sill, Okla.

May is always a special month at Fort Sill, Okla. At the home of the Field Artillery, May is when we conduct the annual Fires Seminar and Field Artillery Conference. Like past conferences, this year's offered a tremendous opportunity for us to gather and discuss a variety of important contemporary and futures-related topics. Through this collaborative process we see ourselves as we prepare to make important decisions that impact how the Field Artillery force contributes to unified land operations. As we close this year's conference, I'd like to share a few of the thoughts I took away and provide an azimuth for us going forward.

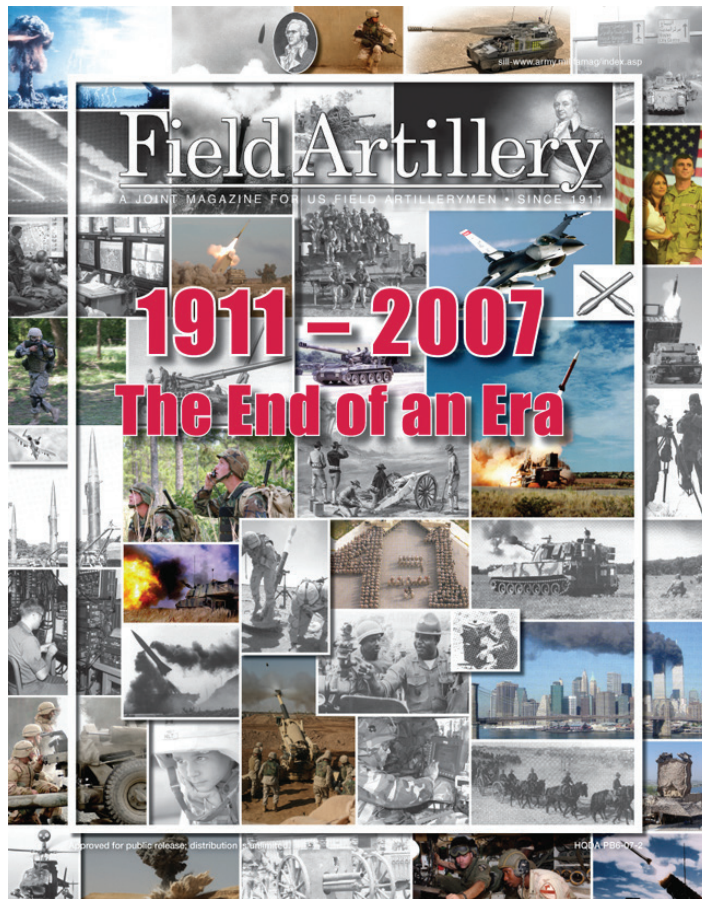


I believe the most appropriate way to conclude the Field Artillery Conference and articulate our azimuth is to develop and publish a Field Artillery Strategy that captures the important work the Field Artillery must accomplish based on our discussions during the conference. I often refer to a document written in 2009, by then Chief of the Field Artillery and USAFAS Commandant, BG Ross Ridge. The commandant's office drafted a strategy that was nested with the newly published TRADOC Pam 525-3-1, *The Army Operating Concept*, and the supporting functional concepts established for each of the warfighting functions. The strategy provided an excellent framework to communicate ideas and identify timelines for achieving specific objectives. Given the incredible changes that are occurring across the Army, it's important that we update that strategy. Within the next 90 days, you can expect to see an updated strategy, which will enable us to stay on

azimuth to meet the needs of the future operational environment.

Leader Development. In the March-April 2007 edition of Field Artillery Magazine, MG (Ret.) David Ralston provided an insightful summary of the history of the Field Artillery and highlighted the repetitive historical examples of field artillerymen who conducted missions other than providing Fires. While acknowledging the exceptional performance and versatility demonstrated by the gunners in those previous wars, he also describes the atrophy of Field Artillery skills that routinely occurs every time our gunners are asked to perform these roles.

As we prepared for and executed this year's Field Artillery Conference, I reflected on the lessons of previous conflicts, and the single greatest concern I have is that today's field artillerymen have experienced similar atrophy of their core skills. A significant number of our current Field Artillery leaders have gaps in their knowledge and experiences. We should be exceptionally proud of the work our mid-grade officers and noncommissioned officers have done over the past years; it's been absolutely incredible. However, the foundation of their experiences has been built upon decentralized operations with the inconsistent application of our Field Artillery tactics, techniques, procedures and doctrine. Our mid-grade leaders have performed magnificently in a wide variety of missions, during multiple deployments to Afghanistan and Iraq, yet we struggle to accurately apply the five requirements of accurate predicted fire. For these same leaders, the majority of their experiences are



“Our Army requires Fires leaders and Soldiers to be experts in their warfighting tasks. The foundation for employing versatile Fires capabilities starts with personnel who are trained and certified in their core competencies.”

—MG David Halverson

Lessons Learned (CALL) and senior leaders in the branch. The strategy will also outline the major objectives and actions required to create the Field Artillery force our Army requires to support unified land operations out to 2020, without adversely impacting our ability to provide

what our Army needs in the short-run.

Fire Support Reorganization. One of the more significant organizational changes proposed in the past five years is the assignment of our brigade-level fire support personnel to our direct support Field Artillery battalions. As fire supporters, we all need to be very clear, the reorganization effort is about one thing: ensuring the best possible arrangement to develop and train the best, most effective fire support system in the world. To quote TRADOC Pam 525-3-4, *The United States Army Functional Concept for Fires*, we have a responsibility to establish and maintain a fire support system that can “enable

related to their individual combat experiences and not the formal, standards-based models that infuse an intuitive sense of the gunnery problem and the confidence to shoot close to maneuver.

In “History as Prologue—Beginning a New Era,” one of Ralston’s most important points was the role Fort Sill played on countless occasions in sustaining excellence in our branch. History tells us that Fort Sill served an important role in the past and should provide equally important leadership in the future. As we move forward from the Field Artillery Conference, the soon-to-be published Field Artillery Strategy will address the challenges we have observed at the combat training centers (CTCs) and have learned from the Center for Army

Fires Mud to Space

the defeat of a wide range of threats, provide timely and responsive Fires in environmental and operational conditions, provide a range of precision to conventional scalable capabilities to engage ground targets, prevent fratricide and minimize collateral damage, and provide access to and integrate joint, Army and multinational Fires capabilities at the lowest appropriate levels." This can only be done through a rigorous and disciplined training program lead by qualified fire support experts.

Observations from CALL and our CTCs indicate that our current arrangement is not the most effective solution for producing Soldiers and leaders who are trained and certified in their core competencies. We're seeing significant issues with target location errors (often as high as 500 meters) and fire supporters who are not employing the tools they have to eliminate target location errors. We're also experiencing challenges in fire support planning, development of the commander's intent for Fires, airspace command and control, fire support certifications and joint Fires observers (JFO) sustainment.

As I engage with various audiences around our Army about this topic, most understand and agree with the need for reorganization. However, there are still some who remain unconvinced. To them, I have a simple response: Trust us. I know this is easily said, and I also know trust is earned. It's earned through professional competence, results, and intimacy. I challenge each and every *Redleg* leader and Soldier to earn the trust of your maneuver counterparts. Demonstrate your professional excellence. Integrate your unique skills and capabilities to the combined arms fight. Go the extra mile in every possible situation to remove any doubt that this was the right thing to do. Our brigade combat teams will be better for it. It's time for us to be great...AGAIN!

Modernizing Gunnery Tools. In the 17th Century, an English mathematician named William Oughtred, among others, invented the slide rule based on John Napier's emerging work on logarithms. For centuries, the slide rule served as the most commonly used calculation tool in science and engineering. In the late 1930s, the United States Army Field Artillery School employed

Soldiers assigned to Battery A, 1st Battalion, 377th Field Artillery Regiment, 17th Fires Brigade load a round into the chamber of a M777 Howitzer May 3 during training at Joint Base Lewis-McChord, Wash. The unit participated in a two-day field training exercise in which they got a chance to sharpen their skills on the weapon system. (Photo by SSG Antwaun Parrish, U.S. Army)





A rocket fires from a HIMARS launcher during a live-fire certification for A and B Batteries, 3rd Battalion, 27th Field Artillery Regiment, 18th Fires Brigade (Airborne) Feb. 17, Fort Bragg, N.C. (Photo by SFC Jacob McDonald, U.S. Army)

this ‘technology’ to develop our present day graphical firing tables (GFTs). Again, for nearly a century, these tools have served as a reliable tool for determining firing data. Today, in view of modern computing power available, we spend an inordinate amount of time in our gunnery instruction teaching our Soldiers and officers how to use these unfamiliar and antiquated tools rather than leveraging modern and intuitive computerized tools to more easily master the underlying theory and principles of gunnery.

The development of the slide rule (and the GFT) enabled our predecessors to efficiently conduct a large number of calculations quickly, but it in no way helped them to intuitively grasp the gunnery problem. As we look to the future, it’s time we make a similar effort to employ the most modern technology available to further increase our efficiency in computing firing data, while enhancing our understanding of the gunnery problem.

Additionally, there will be significant pressure on the Army to provide the leanest, most efficient formations possible. Simultaneously, our Army’s two core competencies, ‘Combined Arms Maneuver’ and ‘Wide Area Security’ will demand that we provide a Field Artillery force capable of highly distributed operations and thereby small firing elements capable of operating autonomously. We must seek innovative ways of providing this capability. Leveraging technology in this area provides one potential solution by reducing the

“We can not predict the future. But we can create it.”

-Jim Collins

size of the fire direction center (FDC) without negatively impacting effectiveness.

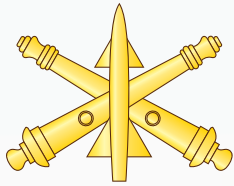
The bottom line is that we can be faster, more precise and have a better understanding of the effects of our munitions, especially in the close fight, if we take advantage of the technology that’s available to us. It’s time to create the future!

Battlefield coordination detachments. On the final day of the Fires Seminar, our Joint and Combined Integration (JACI) directorate hosted the battlefield coordination detachment (BCD) commanders’ conference. This was truly a highlight of the week for me as the commanders identified some of the challenges they face. Topics such as ground liaison officer (GLO) manning, coding and training, BCD qualification and certification programs, and BCD representation of the Army forces commander were certainly worthy of discussion. Within the Field Artillery strategy, we’ll address the significant concerns expressed by the BCD commanders.

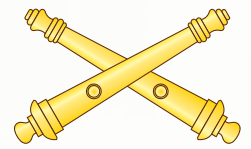
“Succeeding in future armed conflict requires Army forces capable of combined arms maneuver and wide area security within the context of joint, interagency, intergovernmental and multinational efforts.” This quote from TRADOC Pam 525-3-1, *The United States Army Operating Concept*, emphatically highlights the future requirement for Fires. It’s now up to us to develop the doctrinal, organizational, training, material, leader development and personnel solutions to ensure the absolute best support to the combined arms team.

While it’s true that we cannot predict the future, I do believe in our ability to affect it and remain the ‘King of Battle!’ The 2012 Field Artillery Conference was truly an exceptional event. I walked away from the conference with a notebook full of thoughts and ideas. I also walked away feeling exceptionally proud of being a *Redleg*. We clearly have a passion for greatness. As we move forward, we will certainly integrate the comments we gathered throughout the week.

I’d like to remind everyone of the opportunity to continue dialoguing with the branch and school through direct email contact to me or the USAFAS team, through the RFI tab in FKN <https://ww.us.army.mil/suite/page/586258> or through our Facebook social media site located at <http://www.facebook.com/fieldartilleryRedleglive>. Let us know your thoughts. We are very serious about the establishment and publication of the Field Artillery Strategy and believe it will serve as an exceptional tool for the ‘King of Battle’ to remain great by choice!



Fires Change of Command Ceremonies



July 3, 2012

1st BN, 79th FA, Fort Sill, Okla.

Outgoing: LTC Greg Smith

Incoming: LTC Joseph Roller

July 6, 2012

U.S. Army Garrison, Fort Stewart, Ga.

Outgoing: COL Kevin Milton

Incoming: COL Kevin Gregory

July 10, 2012

U.S. Army Garrison, West Point, N.Y.

Outgoing: COL Michael Tarsa

Incoming: COL Dane F. Rideout

July 10, 2012

2nd BN, 8th FA, Fort Wainwright, Alaska

Outgoing: LTC Sean Bateman

Incoming: LTC Thomas Robinson

July 10, 2012

4th BN, 27th FA, Fort Bliss, Texas

Outgoing: LTC Christopher Moretti

Incoming: LTC Ronnie Brown

July 11, 2012

94th AAMDC, Fort Shafter, Hawaii

Outgoing: BG James H. Dickinson

Incoming: BG Daniel L. Karbler

July 12, 2012

196th INF BDE, Fort Shafter, Hawaii

Outgoing: COL Jack Pritchard

Incoming: COL Michael Forsyth

July 24, 2012

402nd FA BDE, Fort Bliss, Texas

Outgoing: COL Kirk Nilsson

Incoming: COL Carolyn Birchfield

July 25, 2012

U.S. Army Garrison, Fort Hamilton, N.Y.

Outgoing: COL Michael Gould

Incoming: COL Eluyn Gines

July 26, 2012

32nd AAMDC, Fort Bliss, Texas

Outgoing: BG John Rossi

Incoming: BG James Dickenson

July 27, 2012

U.S. Army Garrison, Fort Drum, N.Y.

Outgoing: COL Noel Nicolle

Incoming: COL Gary Rosenberg

July 31, 2012

3rd BN, 16th FA, Fort Carson, Colo.

Outgoing: LTC Thomas Munsey

Incoming: LTC Keith Jarolimek

July 31, 2012

31st ADA BDE, Fort Sill, Okla.

Outgoing: COL Daniel Garcia

Incoming: COL Michael Morrissey

Developing Fires Leaders Committed to the Army Profession, Capable of Supporting a Range of Missions from ‘Mud to Space’

By LTC Kyle J. Foley

Editor’s Note: In the May-June edition of Fires Bulletin, LTC Kyle Foley along with LTC Charles Mills laid out the framework for discussion on ‘Fires leader development’ for the 2012 Fires Seminar. After GEN Robert W. Cone’s presentation at the seminar, a panel of experts led by BG Brian McKiernan, commandant of the Field Artillery School, discussed the way ahead for Fires leaders. After compiling all the notes and discussions on the topic, the Fires Center of Excellence’s (FCoE) Directorate of Training and Doctrine (DOTD) was tasked to summarize the outcome of the seminar pertaining to ‘Fires leader development.’ The following is a post-Fires Seminar summary on this discussion.

Function. This article discusses leader development requirements for future Fires leaders that enable them to integrate all Fires; artillery, air and missile defense (AMD), joint Fires, and electronic attack (EA), that meet the needs of the Army/Ground Force for the Army of 2020.

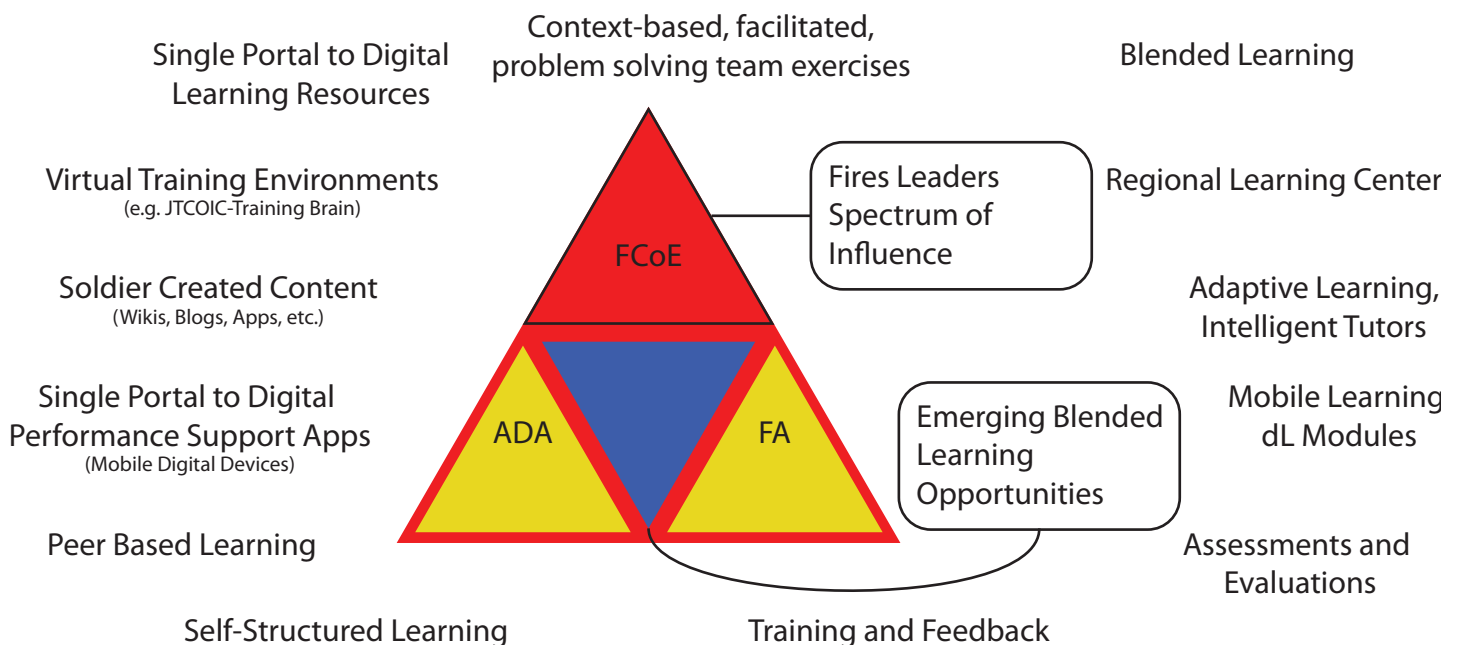
The Fires Vision: “The world’s most versatile Fires force, with agile and adaptive Soldiers and leaders; fielded with integrated and interoperable systems; capable of delivering accurate and responsive Fires in any environment, from ‘mud to space,’ at any time.”

The Fires Center of Excellence Mission: “...trains, educates, and develops U.S. Army and other services’ Fires Soldiers and leaders to integrate joint Fires capabilities, concepts and doctrine in order to provide joint and combined Fires training to the Army and the joint force.

Emerging Doctrine 2015 concepts and constructs within Fires has spawned an integral thought process of integrating Air Defense Artillery and Field Artillery into the Fires Warfighting

The figure below demonstrates the Fires cognitive leaders development model. (Illustration by Rick Paape, Jr., U.S. Army)

Fires Cognitive Leader Development Model



When developing Soldiers in the two branches, military education and training gaps emerge within the FCoE that may be further explored as potential opportunities for broadening the development of our Fires leaders. We must posture to redefine our vision for Fires that connect leaders; bonded together by a common core of professional credentials and responsibilities.

Areas of opportunity that could immediately support the interaction and broaden the development of Fires officers may be a blended approach to the common core instruction at the Captain's Career Course, where tactical level instruction occurs and subsequent assignment to support counter-rocket, artillery, and mortar (C-RAM) positions. Additionally, it would be imperative to harness the synergies at the tactical and operational levels by integrating Fires structure between the two branches within the Fires cell.

Central to blending Air Defense Artillery (ADA) and Field Artillery (FA) skills for the senior leader is the development of competencies required to enable exchanging Fires leaders between ADA and FA post-battery command positions. This may require first serving as executive officers and operations officers in

their respective branch, followed by serving in positions within the other branch. Senior Fires leaders must not only execute the Fires functions at a high level of proficiency, but they must have the ability to educate, train and mentor our junior leaders to emphasize lifelong learning that provides opportunities that broaden and deepen their understanding.

The challenge the FCoE must overcome is to ensure the integration of blended capabilities between the two branches does not generate mediocrity in technical and tactical expertise.

Leader development of our junior Fires leaders must first, and primarily, be focused on building a foundation on their basic branch competencies. As these Fires leaders grow, we must provide blended, broadened and mentored opportunities in order to prepare them for the challenges they will encounter both within and outside the Fires branches. Headquarters staffs at major commands, joint, and HQDA will require Fires leaders to be knowledgeable in all aspects of Fires in support of offensive, defensive and stability tasks, regardless of their basic branch.

Fires

<http://sill-www.army.mil/firesbulletin/>

Scan with a barcode reading app for immediate access on your device.



Fires at your fingertips

Shaping the Future Force:

An overview of the presentation by GEN Robert Cone

By Shirley Dismuke
Editor-in-Chief

When we consider what it means to shape the Army of 2020 and which of our current leaders will have the most impact on the critical decisions necessary to influence the major changes ahead, the Commanding General, Training and Doctrine Command, GEN Robert Cone, is among the top of the list of key players who will shape the Army's future force.

At the Fires Seminar in Lawton, Okla., on May 16, 2012, Cone discussed Fires in the Army of 2020. As the TRADOC commander for just over a year, Cone has worked very closely with GEN Raymond Odierno, Army Chief of Staff, LTG Keith Walker, Director of Army Capabilities Integration Center (ARCIC), as well as many other senior leaders, on all matters dealing with supporting and transitioning the Army of 2020. The holistic approach TRADOC is taking in redesigning and implementing the transition is one with a common goal for the force and the Soldiers. The three major areas of change are: structuring the current fight, structural transition, and human transition.

Supporting the total Army. "This is a little like Vietnam where we are transitioning from a long-term war into a peace-time Army," Cone said. The top priority for TRADOC is, has been, and will continue to be, supporting the warfighter. In a time where so much emphasis is placed on the operational warfighting Soldier, it is easy to overlook the fact that TRADOC has trained over 599,000 Soldiers, Sailors, Marines, Airmen and foreign students during the past year. Currently, there are 86 mobile training teams (MTTs) out in the operational force, a number as high as TRADOC has experienced at any point during the war. These MTTs are in direct correlation with the current high backlog in the Noncommissioned Officer Education System (NCOES).

Supporting the current fight. "We have about 37,000 NCOs who got promoted and who have not attended the fundamental schools they should have attended." Cone also stated that the backlog is not because the authorized slots are not available. "This is not a math problem," he said. "I can run the numbers and tell you when we're going to get to where we need to be. This is a problem of Soldiers not wanting to go to school." Often, Soldiers think they will get 'constructive credit' in lieu of attending the required courses. Army doctrine and the Army profession require professional developmental



GEN Robert Cone discusses the task of shaping the future force during the 2012 Fires Seminar. (Photo by Rick Paape, Jr., U.S. Army)

training. Neglecting this training has led to "a great NCO Corps with a very narrow band of highly competent skills." Attending professional development courses will expand the skill set and ensure future leaders are highly qualified in the role of unified land operations as well as the core competency skills of Soldiering.

The human transition. Of all the significant areas of transition, Cone stated, "This (the human transition) is the one that keeps me up at night. When I look at these young captains, majors, and Soldiers... these people are the ones who have gotten us through the last 10 years. They are the ones who have been at the point of attack. They have changed... they have adapted... they have led us in every way." Cone is very empathetic as he puts

Figure 1: Hybrid Threat Concept

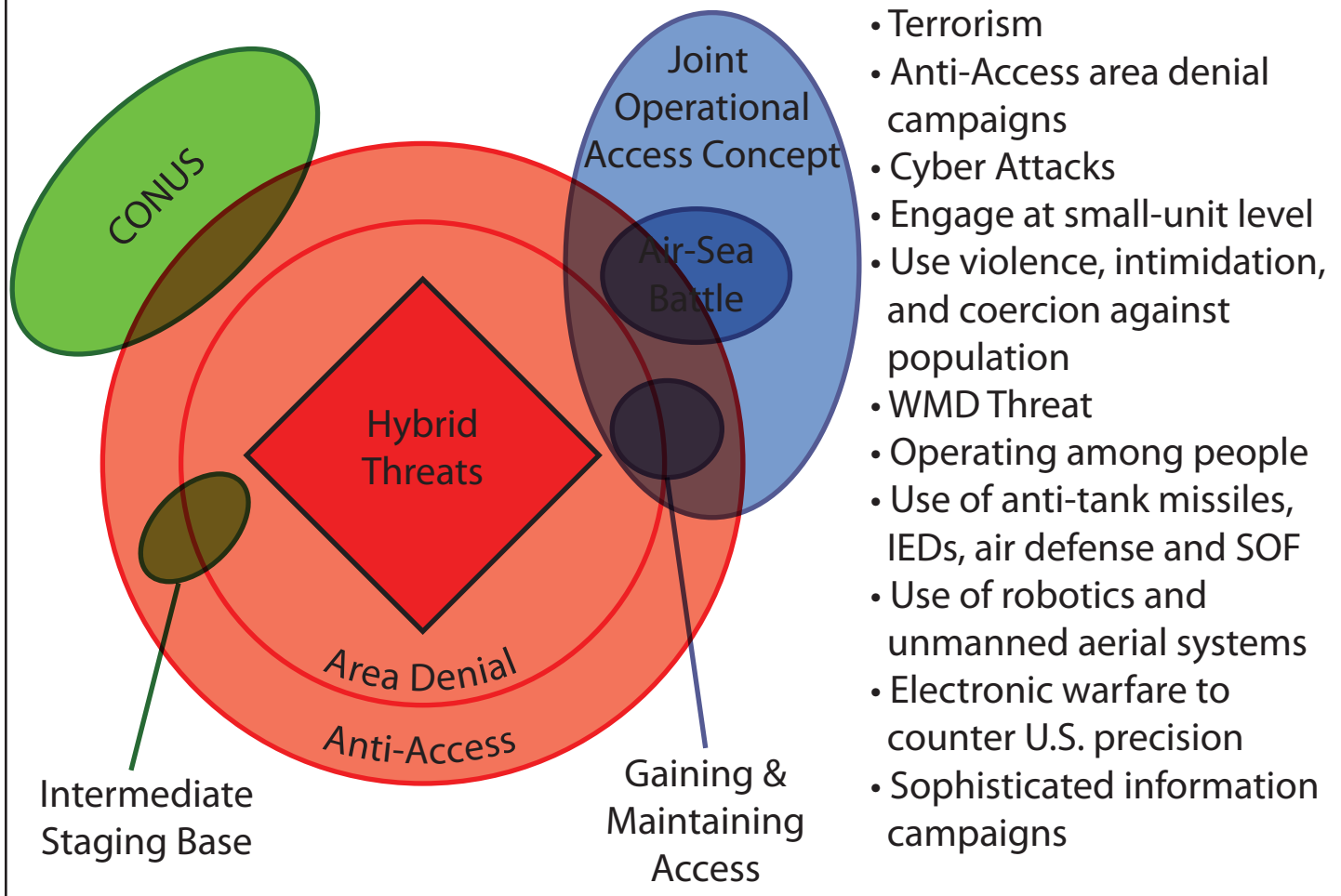


Figure 1 outlines the concept of the hybrid threat, which exists within an area identified as anti-access and area denial (A2/AD). (Illustration by Rick Paape, Jr., U.S. Army)

himself in their boots, listening to leaders discussing change and the peace-time Army. Worried the Army will lose its best and brightest young leaders is a major concern, and he pointed out that it will be organizations like TRADOC and the Fires Center of Excellence who capture their imagination for future service. This task will prove to be one of the biggest challenges for TRADOC and all senior leaders. Cone says, "It is important to show our young Soldiers and leaders the kinds of programs from which they will benefit through continued service and the installations will play a big role in their retention for continued service."

The hybrid threat. The capability to identify threats, specifically 'believable' hybrid threats, is a critical component of a successful transition. "You really have to understand the threat to understand the future of Fires. You can't just wish the enemy away," Cone stated. Figure 1 outlines the concept of the hybrid threat, which exists within an area identified as anti-access and area denial (A2/AD). Most of our enemies recognize the

fact that a conventional confrontation with the U.S. is a losing proposition. They focus on our vulnerabilities and use their home terrain advantage for nontraditional employment of all possible hybrid strategies. The enemy applies a 'strategic lever' to force the U.S. into taking actions we did not originally want to take. Cone used the situations in Syria and Iran as examples. "How much longer can we turn our back on these countries... before something has to happen?" The end state of these levers is a frustrated U.S. operation which allows the enemy to possibly turn 'conflict' into a protracted war of attrition.

Using different optics. Figure 2 compares the new 'range of military operations' through the lens of Department of Defense strategy. Expanding our scope to a 'wide lens' focus allows the Army to project power into a broader path of unified land operations and better prepares us to defeat, or at a minimum defend against, the A2/AD hybrid threat. The combination of a narrow focus and a wide lens allows the Army to rapidly adjust to potential threats, setting the stage for an operationally

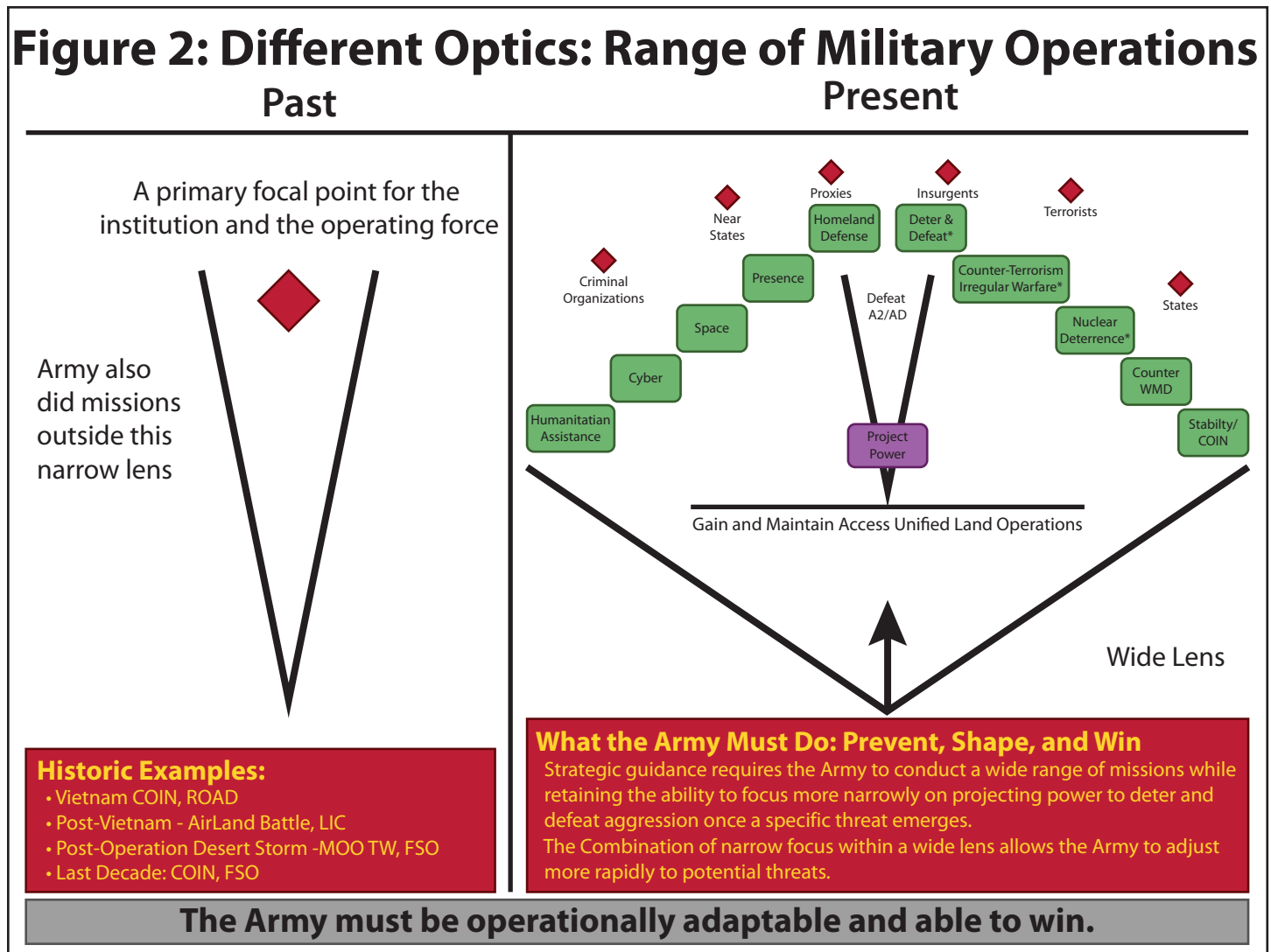
adaptable Army that is able to win any battle. Reinforcing Odierno's concept of 'Prevent, Shape, Win,' we must be able to prevent conflict by maintaining credibility and avoiding miscalculation. We must use our assets to shape the environment by sustaining relationships and building our capacity. If we master the 'prevent' and 'shape' tasks, it makes winning much less difficult. Cone argued, "The concept of air-sea battle is critical for control of the global commons, a term which refers to those parts of the Earth's surface beyond national jurisdictions, most notably the open ocean and the atmosphere. Joint operational access, and a combination of a narrow focus within a wide lens, allows the Army to adjust more rapidly to potential threats of any kind."

Cone explained the "11 missions that we must participate in and support." With an end strength of 490,000, proper distribution of Soldiers and assets, as well as the correct structural organization, is critical to support these missions. The central, most important mission, as Cone sees it, is with the American people:

defeat, deter, and ultimately win. "Our strength is in companies, batteries, battalions, brigades...not in boutique organizations set up for specific missions." How do you have enough forces to defeat, deter and win? The Army has looked at this issue across the various levels and performed war-gaming analysis to determine an ideal number for the operational force. Thirty-two brigades is the number we will be able to justify. "If we go below that, even to 30, we better take a good hard look at what is included in each brigade."

The structural transition. The structural transition as currently planned will have a significant impact on the Fires force. "By and large," Cone stated, "the addition of the force Field Artillery headquarters at the division level was essential. We recognize that you are a flexible and adaptable force. There is no force more adaptable than the Fires community. When you consider all of the various missions you guys (the Fires force) have picked up over the past several years...you are the very definition of adaptability. However, we must maintain

Figure 2 compares the new 'range of military operations' through the lens of Department of Defense strategy. (Illustration by Rick Paape, Jr., U.S. Army)



the significant structures that allow you to go back to that critical role of delivering Fires.”

Cone reiterated the fact that the Army cannot design a Fires force specifically geared toward precision strike. If we do that, “Then what?” he asked. “When the enemy defeats that capability, or adapts to it, then what do you do?” A number of complex factors enter the picture when the enemy adds nontraditional factors, such as human shields. “It is critically important that we define our future based on the past 10 years. Precision munitions will have a definite place in that future; however, the Fires force will not revolve around precision strike. The Army of 2020 must and will be able to engage in full-range warfare and we have to address what happens next.”

Big changes ahead. Cone said, “During modularity, the Army went from 33 brigades to 45, and it was absolutely the right thing to do during a counter-insurgency fight. Now we will go back to 32.” He is convinced this part of the transition will not be all that difficult. The number was not arbitrary. He explained that a lot of discussion and hard work went into these difficult decisions. “We took 34 different scenarios. We found ourselves task-organizing with four types of brigades: light, heavy, Stryker, airborne.” Although specific numbers were not addressed for the engineer branch, Cone praised them for the “unbelievable support they bring to the fight.” The Army will keep a total of eight Stryker brigades, although there is an ongoing debate on numbers of heavy or armored brigades. Consensus is somewhere between nine and 11. Cone also discussed the huge number of vehicles and the idea of pooling vehicles at a higher level; however, every unit going to combat will have what they need. The philosophy of providing greater efficiencies by moving these vehicles back to brigade and corps level is the driving force behind the decision.

Building organizations. The National Training Center (NTC) at Fort Irwin, Calif., has been focused on getting Soldiers and units ready to deploy. Commanders have not been able to use the training as an assessment tool to make decisions on a training plan. This type of training has contributed to leaders who are not excited about the future. In an effort to better engage the force with a more positive experience, the Army needs to “do a better job of communicating to combatant commanders that our heads are in the game, we are focused, and we’ve got people back home that are literally begging to help out and meet all of their requirements.” One way the Army is doing this is by realigning units that are in the contingency expeditionary forces (CEF) pool with the combatant commanders’ requirements.

Cone spoke briefly about Title 10 and the reserve component (RC), calling them “the best in the world.” He recently attended the RC Commanders’ Conference, where the leadership verified their commitment to stay on the team. The RC forces want to know when they are deploying and they want to stay part of the team. They

totally understand we are in this transition as one team. Although the opportunities for RC deployments will decrease in the future, TRADOC is continually working to verify what the active component can fill and what the RC should fill. Cone stated that “understanding Army Force Generation (ARFORGEN) and the underlying architecture that links it to the battlefield is key to understanding how we are going to fight and how we will layer the consensus on the next battlefield.”

Building people. Although one of his last topics for discussion, Cone made it immediately clear that education, training, and professional development were the cornerstone of TRADOC and the Army. He heralded the Army Profession as “the answer to a lot of your problems.” Cone implied the Army is “fraying at the seams...and one of the biggest problems is that leaders won’t look Soldiers in the eye and enforce standards.” He referred to a recent sensing session with Soldiers and leaders from Fort Sill. “Soldiers looked at me and asked why should we trust you (senior leaders)? Yes, we would trust you to go to war and to fight with you, but if we had to make a hard political decision, we don’t trust you to support us.” The participants were specifically referring to the use of flagging actions, inferring their leaders would not approve of the action. Cone challenged senior leaders to do a better job of supporting those under their commands.

The Army Profession gives guide posts to structure our actions as we move into the future. Cone made the analogy of the Army’s doctrine compared to the medical profession. “You don’t operate on people and then become a doctor.” This lack of professional training has created Soldiers who don’t know about counseling, the Army promotion system, or basic leadership skills. The Army has realized they should not be promoting people based on numbers but on qualifications. The ‘select--train--promote policy’ is part of the Army Profession and the Army Leader Development Strategy, and will be a great improvement over the current system of select--promote--train.

Cone talked about doctrine and the critical role it plays in Army Profession. He implied that TRADOC had not done a good job of “minding the store” on doctrine and capturing the professional, dynamic doctrine is absolutely critical for the future force. Cone said there are about 56 brigade commanders who have not attended the war college, and many of them have not completed Intermediate-Level Education (ILE). “This doesn’t fit the model of the military profession,” he said. Instituting competitive ILE was recently briefed to the secretary of the Army and will most likely be implemented in the very near future.

“We have built the best generation of tactical leaders we’ve had in decades...people who know the business of battalions and brigades like the back of their hand. But the question is: how do you expand your thinking?” Cone referred to GEN George Marshall’s philosophy of

selecting leaders, “people with stamina, standing and breath,” which goes back to broadening opportunities. Cone also expressed concern regarding leaders staying in one location versus taking a fellowship or attending a school or seeking a joint assignment. Change such as this must be implemented at the top, and senior leaders must look at their emerging, young leaders and convince them to take a variety of jobs. He also believes the Army should be ‘pushing’ Soldiers in this direction.

On the subject of training under constrained budgets, Cone said, “One of the things this generation doesn’t want to hear is get back to the basic, because I’m here to tell you, the basics weren’t all that good. We gotta do better.” Training has got to capture the young Soldier’s attention, and he suggests live, virtual, constructive training is the right answer. The resource training model cannot be based on today but must look toward the future. “You have to recognize the problem before you can fix it,” and Cone is aware that training fund allocations are indeed a problem TRADOC needs to address.

A brief question and answer session followed Cone’s presentation in which many questions regarding

structural organization and realigning the Fires force were addressed. In one of his closing remarks, Cone addressed “the vertical dimension of leadership” and the importance of senior commanders getting to know both their lower and higher level commanders. He provided an example of mentorship working both ways and shared a personal experience of one of his subordinate colonels pulling him aside “like a brother,” to give him a reality check on his decisions. Cone reiterated the importance of mentorship within the force and stated, “We’ve broken that connection and we need to put it back.”

The TRADOC commander is doing his part to ensure mentorship becomes the norm for the Army of 2020. His active participation in the Fires seminar provided a positive example for all commanders to follow and set the tone for the remainder of the seminar. His concern for Soldiers and getting this transition right was apparent when he assured the audience that “leadership is engaged. We’re not going to make everyone happy, but we will do what’s right for our Army.”

SSG Reynalda Herrera, from the 362nd Psychological Operations Company in Fayetteville, Ark., shouts orders to fellow Soldiers as her team receives simulated direct fire during a pre-deployment training exercise conducted by the 1st Training Brigade, U.S. Army Civil Affairs and Psychological Operation Command (Airborne), at Fort Dix, N.J. An opposing force role-player from 1st Training Brigade lies motionless beneath her. The purpose of the training is to place the Army Reserve Soldiers in real life situations they may experience overseas. Actors are brought in to make the training more realistic, as PSYOP Soldiers specialize in face-to-face interaction with civilians. (Photo by SSG Sharilyn Wells, U.S. Army)



Fires Leader Development Panel

By Shirley Dismuke
Editor-in-Chief



The Fires Leader Development Panel, co-chaired by BG Brian McKiernan and then COL(P) Daniel Karbler, holds their discussion during the 2012 Fires Seminar. (Photo by Rick Paape, Jr., U.S. Army)

On May 15, 2012, six of the seven most senior decision-makers assigned to Fort Sill, Okla., sat on a panel at the 2012 Fires Seminar to discuss Fires leader development. Panel members included: BG Brian McKiernan, commandant of the Field Artillery (FA) School; COL (P) Daniel Karbler, commandant of the Air Defense Artillery (ADA) School; COL Alfredo Najera, commander, 75th Fires Brigade; COL Dan Garcia, commander, 31st ADA Brigade; COL John Drago, commander, 428th FA Brigade; and COL Bill Stacey, commander, 6th ADA Brigade; LTC Kyle Foley, chief of Lessons Learned Directorate of Training and Development, and panel facilitator.

The new definition of the Fires warfighting function per ADRP 3-0 (final approved draft) is: The related tasks and systems that provide collective and coordinated use of Army indirect Fires, air and missile defense, and joint Fires through the targeting process. Army Fires systems deliver Fires in support of offensive and defensive tasks to create specific lethal and nonlethal effects on a target. The Fires warfighting function includes the following tasks:

- Deliver Fires
- Integrate all forms of Army, joint and multinational Fires

- Conduct targeting

McKiernan began the discussion, pointing out the panel members (from both Field Artillery and Air Defense Artillery branches) were sitting arm-to-arm purposefully, to signify unity in Fires. He expressed concern that some members of the seminar, as well as the Fires community, might wonder about the importance of the topic: “are we having this discussion just because we brought the schools together and co-located them, or is there a gap out there in the Fires leader which needs a resolution?”

McKiernan stated “When you look at the definition of the Fires warfighter function, and when you consider

the move of air and missile defense from the protection function to the Fires function, it necessitates this kind of discussion." Re-writing the Fires doctrine is already underway at both the FA and ADA schools at Fort Sill. Although merging the branches is not a topic for discussion, some blended training opportunities appear to exist at the junior to mid-grade officer level. These are the areas in which the panel appears to agree. McKiernan said the Captains Career Course is a good example of when cross-training a Fires officer should begin in order to get the synergy we need to develop leaders in the Fires community, to include those capable of commanding the Fires Center of Excellence or Air and Missile Defense centers.

Doctrine affects structure, and the Fires Brigade Combat Detachment (BCD) is no exception. Re-writing the doctrine requires re-structure of the BCD cell, and will necessitate change from an "entirely traditional Fires cell, in the sense that it looks like the Field Artillery, and incorporate ADA into the cell." McKiernan reiterated the fact that to create a true Fires cell, both artillery branches must be fully integrated into the brigade tactical operations cell (TOC) to support the warfighting function as written. Training leaders in the institutional environment is critical to get these leaders prepared for the future. McKiernan pointed out that "We are all trying to use the same air space, view the same air space and de-conflict and integrate our capabilities through it, yet we have three distinct structures inside of those organizational constructs of air space control." Integration, he says, is the key to overcoming this major obstacle. He used his experience as a brigade commander with an Avenger battalion as an example of the synergy that can be gained with unified leadership under one TOC.

Panel member then COL (P) Dan Karbler (who was 'pinned' a brigadier general on June 14, 2012) pointed out the fact that the Army is not requiring 13 series to do 14 series tasks or vice versa. He mentioned names of several officers who currently embody the type of 'Fires' officer the Army must consciously 'grow' in order to assure the health of the future Fires force. COL Mat Merrick, director of Combat Development and Integration at Fort Sill, along with more well known names in the Fires community, such as MG Dave Halverson and LTG Richard Formica, were examples of leaders who have taken the necessary steps to integrate

ADA and FA into their knowledge base to become well-rounded, Fires experts. He stated these officers are fully capable of briefing the most senior military and civilian leaders on concepts, requirements, or integration of the warfighting function, regardless of their assigned branch. This ability to understand and apply these details of Fires, both offensive and defensive...protective and deterrence...is the difference in being an FA or ADA officer and becoming a true Fires officer.

As Karbler sees it, the future Fires officer will model the example of leaders such as COL Dewey Granger, deputy commander of the 94th Army Air and Missile Defense Command (AAMDC), Fort Shafter, Hawaii, a Field Artillery officer with the background and knowledge to cross-over into the totally integrated environment of Fires. Granger was previously the commander of the 3rd Brigade Combat Team, also in Hawaii, but

has seamlessly transitioned and "fits in very comfortably with what's going on at the 94th AAMDC," said Karbler. "Army Regulation 600-20 doesn't say he has to do that, nor did the promotion boards. He (Granger) saw a great opportunity and it was recognized by the senior leadership that he could fill in that Fires leader position." Karbler went on to say Granger is doing an incredible job at the 94th.

Karbler also mentioned that it's not just officers but many senior noncommissioned officers are cross-branching into both ADA and FA units and doing "an amazing job." He said it is critical that all Soldiers and officers stay 'broadened' and abreast of the warfighter function and pursue the kind of knowledge and experience that will take them to the next level in their careers as members of the Fires community.

The panel answered a variety of questions from attendees and those watching online through Defense Connect Online, better known as DCO connect. The first question asked McKiernan to elaborate on the soon-to-be-published doctrine and how the FA and ADA would merge under one Fires warfighting function and the "synergies" that would evolve through this merger. McKiernan responded by saying, "I think it goes back to my comments on whether or not we are organized with our formations to properly execute the warfighting function, which is inter-related with all of the other warfighting functions, a very complex interaction. However, when I look at that, I see the possibility of

When you look at the definition of the Fires warfighter function, and when you consider the move of air and missile defense from the protection function to the Fires function, it necessitates this kind of discussion.

—BG Brian McKiernan



Soldiers from the 214th Fires Brigade participate in classroom discussion to gain insight about helping out their fellow troops in Battle-to-Battle resiliency training at Fort Sill, Okla. (Photo by SPC Steven Bryant, U.S. Army)

creating a 'Fires cell' that executes the tasks associated with this (new) warfighting function. The greatest synergy I see is the ability to closely couple those who are managing air space with those who are trying to use it for different purposes." McKiernan went on to discuss the positive aspect of being able to move young officers from positions within the ADA and FA organizations into one Fires cell that can and would oversee the entire integrated Fires warfighting functions for the future. He envisions a much better "mutual understanding" of Fires for both ADA and FA officers at a much lower level than that which we currently experience.

Karbler tagged on to McKiernan's response with information regarding the Attack Operations cell at the AAMDC, and how positive interactions are resulting from the cross-assignment of both FA and ADA officers within that Fires cell. This cell provides commanders the flexibility to not only shoot down incoming targets, but to "fire back" and have an immediate impact on the outcome of the battle.

Some concern was raised that the warfighting function did not include the maneuver side of artillery and may

be a little shortsighted. The panel responded by noting the function, as written, allows much flexibility for commanders. The function has to meet the requirements for both branches and still fall under one Fires umbrella; however, McKiernan did agree that these concerns need to be considered as they move forward. He also stated that he spends a lot of time at the Maneuver Center of Excellence to ensure Fires is being fully integrated with the maneuver command. McKiernan also shared that virtual training is assisting with integrating both maneuver and infantry into the Fires curricula to ensure well-rounded officers go to their first units of assignment.

All members of the panel shared with the audience things that "keep them up at night" regarding their positions of leadership. The overall consensus was everyone wants to 'get it right' by properly training, educating, and equipping our Fires Soldiers and officers for the future. The dedication and professionalism of these great leaders will definitely be the fuel that moves the Fires community well into that future.

Capstone Concept for Joint Operations Joint Force 2020:

An overview of the presentation by
U.S. Marine Corps Lt. Gen. George Flynn

By Mark Norris



U.S. Marine Corps Lt. Gen. George Flynn speaks at the 2012 Fires Seminar. (Photo by Rick Paape, Jr., U.S. Army)

Director of Joint Force Development, U.S. Marine Corps Lt. Gen. George F. Flynn, addressed the 2012 Fires Seminar, May 16, 2012, on the complexities and challenges facing the development of a globally interdependent joint force of 2020. Cross-domain synergy, globally integrated operations, reconciliation of the global, functional, and regional construct, mission command, and leader development are Army 2020 concepts, which Flynn said must be discovered and implemented to define the “New American Way of War.” Serving directly under Joint Chiefs Chairman, GEN Martin Dempsey, Flynn is working to provide real solutions to these new concepts. Flynn’s four priorities as joint staff J-7 include the achievement of the objectives of the current fight; the development of Joint Force 2020; the advancement of the Profession of Arms; and keeping faith with servicemen and their families.

“The directorate is still a work in progress,” Flynn said humorously in opening comments. “I took over JFCOM responsibilities when it went away. I am an artilleryman, so I can do math in public, and I tend to know where I am.” But he added the unknown strategies of fighting as a globally connected Army will need to be considered by every thinking officer, tested, and applied in doctrine.

While setting the stage for the 2020 Joint Force concepts, Flynn said the ideas he would share in his presentation were just that...ideas. Adding they were “his ideas” not to be confused with military policy.

“The world is going to remain complex and uncertain, and is going to get increasingly dangerous in different ways,” Flynn said. “If you like the increasing danger and complexity of today, you’re really going to like tomorrow.” He then indicated the ‘concepting and proving’ of a globally connected joint force will be a stabilizing factor for these future events.

The new battle space. Battle space of the past was constrained by physical boundaries, and our adversaries' capabilities were limited and more predictable. It had two dimensions: air and land. It also had rules, Flynn said. "Our adversaries' capabilities were predictable, and we had dominance. If you wanted to work in someone else's area of operation, you simply had to ask."

Today the U.S. military must deal with five dimensions: space, cyberspace, air, land, and sea. Coordinating these battle space areas globally is the number one challenge of our global joint force of 2020, Flynn said. 'Cross-domain synergy' is the term Flynn applies to coordinating these five domains.

Working at the speed of the problem. "Change is going to happen faster, and the joint force will have to adapt to operate at the speed of the problem," Flynn said. "The coordination of these five domains is what we need to achieve. This is our new multi-dimensional challenge. It's what we mean by cross-domain synergy, and how we operate in space and time. We will need the skills to work at the speed of any of these domain environments."

Flynn highlighted cyberspace as a growing battlefield domain, and said how the military integrates it, is the key to the future. "To operate at the speed of the NET, you must know how to operate in multiple domains. You must quickly orient yourself and understand the problem. Making a decision once understanding a problem that presents itself is not necessarily taking action," Flynn said. "You just have to decide, because in some cases there will be a need for tactical patience. You won't have to operate faster; you will need to understand faster so you make the right decisions. And you must consider the order of effects your decision will produce based on the knowledge."

Intelligence context and network protection. Determining the context of intelligence that comes over the Internet and other channels is an Army 2020 imperative. What various information means coming from multiple resources must be captured. Network protection will also need further development. If a globally connected force depends on a single network, it will be cataclysmic if that network is destroyed. One network component may need to be shut down to preserve another critical area. These network areas need more developmental thought. An additional concept in determining future joint operations is the fact that America itself is now a part of the battlefield. "We are also now paying stricter attention to our capacity to defend America, which was not something we had to worry about in the past," Flynn said.

The fiscal reality. Constrained fiscal realities will also affect future joint force capabilities. Flynn said the operational challenge of how future joint forces with constrained resources will protect U.S. national interests, against increasingly capable enemies, is a working issue.

Security challenges in the future will simultaneously produce local and global challenges. To protect the U.S. and our national interests, Flynn says the joint force will need superior skills in counterintelligence and information warfare. It will need to deter and defeat aggression; project power despite anti-access/area denial (A2/AD) strategies; counter weapons of mass destruction; operate effectively in cyberspace and space; maintain a safe, secure, and effective nuclear deterrent; defend the homeland and provide support to civil authorities; provide a stabilizing presence; conduct stability and COIN operations—and all of this while we reduce our overall organizational capacity.

Battle command – not mission command. Joint force 2020 research will have to look at current combatant command structures. It will need to reconcile the global, functional, and regional construct, because, Flynn said, "nothing will be regional in the future—all operations will be conducted across multiple theaters." Command title changes will be needed on the battlefield of 2020. Stating the term 'mission command' should be changed to 'battle command,' Flynn pointed out two dimensions battle commanders must deal with: the science of command, and the art, or human dimension, of command. One is a matter of war operations; the other is a matter of coordinating with all elements involved in the fight. "We will need to discipline command and control in command structures to keep commanders in their lanes," said Flynn.

Sealing the operational 'seams.' Commanders with the skills to restrain and release their capabilities in the new global environment will need to be identified and trained. The advantage the U.S. military has in pursuing this goal, Flynn said, is the last 12 years of operational challenges our military leaders have faced and overcome. "Developing functioning command and control structures, or combatant commands, and integrating them into a regional construct is the challenge we now face, because there are operational seams," Flynn said. "We deal with the seams operationally. And we're going to have to look at how we will be able to close down on those seams. Operating at the speed of the environment will require commanders to stay within their lanes. They will need to develop trust, adaptability, and empowerment."

The Fires force challenge. Flynn challenged every Fires leader to exercise their artillery intelligence to integrate future Field Artillery Fires and effects. Electric, cyber, and kinetic Fires were highlighted. "How are we going to integrate them?" he asked the assembled artillery leaders. "Have you thought through how we can put them all together? Everyone in this room should be figuring out that problem. How do you take all these things that can cause an effect, link them up, and have a common operating picture of when they're working (or not) to achieve the effects at the right time. This is your big Fires piece," Flynn said.



U.S. Army, Air Force, and Marine Corps service members attend a pre-mission briefing before an airlift mission during Joint Operations Access Exercise at Fort Bragg, N.C., June 6, 2012. A joint operations access exercise is a two-week exercise to prepare Air Force and Army service members to respond to worldwide crises and contingencies. (Photo by Senior Airman Marleah Miller, U.S. Air Force)

Increased interdependence and interoperability. To become the global Joint Force of 2020 Flynn said we will need to work toward increased global interdependence, and interoperability. Speaking positively on interdependence he said it may be a solution to the fiscal problems now faced. But he also pointed out how interdependence with other force elements could hamper needed flexibility to move and act outside of rigid controls. He also predicted the battle space in the future environment will be “spread out” with smaller formations. And he said the leadership challenge of this dimension will be sustaining thinner formations and massing them when tactics call for it. “We’re working on all these issues now,” he said, and added none of the ideas shared at the seminar had yet been approved by the joint chiefs’ chairman. “But we are testing them. They are my big ideas. None have been proven. If you’ve got any ideas, I’m willing to listen to them.” Dempsey is now working with Flynn to produce the fourth edition of

the Capstone Plan of Operations, as a bridging doctrine between strategy and operations.

The Profession of Arms. Finally, the director of joint force development said, “to achieve the goals of joint force 2020, we must renew our commitment to the Profession of Arms. We’re not a profession because we simply say we’re a profession. We must continue to learn, to understand, and promote the knowledge, skills, attributes, and behaviors that define us as a profession. Eighty percent of our joint force 2020 capabilities exist, are in development, or programmed. We must move forward together to discover the other 20 percent.”

Mark Norris is the Congressional Liaison Officer, Office of Strategic Communications, Fires Center of Excellence, Fort Sill, Okla.

Prevent, Shape, Win: Employing Fires in Support of Offensive, Defensive and Stability Tasks to Meet the Army's Strategic Imperatives for Joint Force 2020

By MAJ Lance Boothe

Editor's Note: The original article of the same name, published in the May/June Fires Bulletin, discussed the concepts for employing Fires in support of offensive, defensive and stability tasks to meet the Army's strategic imperatives of Prevent, Shape, and Win. Following is an update which summarizes the discussion at the 2012 Fires seminar.

The central idea is that offensive and defensive Fires capabilities provide the Army of 2020 with a versatile mix of organizations and systems, at all levels, to prevent conflict, shape the environment, and win in war.

The challenge for the Army Fires community is to improve training, organize, and equip the force to employ Fires in support of offensive, defensive and stability tasks for unified land operations.

Putting in context. In the future operational environment (OE), adversaries will invest in technologies that improve the precision of existing munitions and systems. Adversaries will increase the use of unmanned aerial surveillance (UAS), counter-precision technologies, and electronic attack capabilities.

The assessment. Army Fires must integrate and operate with joint, interagency, intergovernmental, and multinational (JIIM) partners from tactical to strategic levels, delivering timely and effective offensive Fires to preempt enemy actions, and defensive Fires to protect friendly forces, population centers, and critical infrastructure. Maneuver forces often operate without fire support because confidence in planning and clearing Army Fires has eroded; therefore, commanders rely more heavily on tactical air support.

Prevent. To become a credible force with sufficient capacity, readiness, and modernization to prevent conflict, Army Fires must ensure the proper force mix

of offensive and defensive Fires capabilities to support unified land operations.

Shape. To build partners' capacity by military-to-military exchanges and procurements, the Army Fires forces support theater security cooperation plans and national security strategy. With 46 percent of defensive Fires forces forward stationed/deployed, Soldiers engage multinational partners to foster mutual understanding and build defense capacity. Army Fires has increased the long-standing tradition of exchanging Soldiers and instructors with allied nations, so that multinational Fires capabilities are developed and compatible with U.S. capabilities.

Win. Army Fires must be ready to win decisively and dominantly. The Fires community must return to lethality as its principle responsibility. Fires fundamentals are targeting, gunnery, movement and maneuver, and integration/communication. Fires core competencies are fire support and air and missile defense. The basic fire support tasks are: provide Fires to forces-in-contact; support the commander's battle plan; synchronize Fires; and sustain Fires operations. Basic air and missile defense tasks are: defeat air, missile, rocket, and mortar threats; provide situational awareness and understanding; provide early warning of aerial attacks; and collaboratively support management of the airspace.

Major Lance Boothe is assigned to the Concepts Development Division of CDID, Fire Center of Excellence, Fort Sill, Okla. He is a veteran of Afghanistan and Iraq. He holds a Masters of Public Administration from the University of Colorado.

Evolution of Fires, Lessons Learned, and Remaining Challenges:

An overview of the presentation by MG Gary Cheek

By Shirley Dismuke
Editor-in-Chief

On May 16, 2012, Deputy Commanding General, Third Army, U.S. Army Central (ARCENT), Land Component Command (CFLCC), MG Gary Cheek, addressed attendees of the 2012 Fires Seminar on the responsibilities of ARCENT as it relates to Fires, lessons learned and the challenges which lie ahead.

Although the Third Army was established in 1919 at the end of World War I, ARCENT was established just prior to Operation Desert Storm in 1990. One of the most critical missions of ARCENT is to promote stability in the Middle East while protecting the world's energy resources, much of which flows through the Strait of Hormuz, a strategically important 'choke point,' and the only access to the Gulf of Oman from the Persian Gulf.

Cheek initiated his briefing with background on the 'tanker war' from 1984-1988, a conflict noted by the continuous attacks on merchant ships, killing more than 400 seamen and costing billions of dollars in damages to the shipping and oil industries. Although the land battle was confined to Iraq and Iran, all of the Gulf States were threatened economically by the ruthless attacks, and movement of oil and gas was severely restricted. Much of the information from Cheek's presentation was taken directly from the book "Tanker Wars: The Assault on Merchant Shipping during the Iran-Iraq Conflict, 1980-1988," by Martin Navias and E. R. Hooten.

Understanding the religious makeup of the Middle East is critical to operations there, and Cheek

spent some time discussing which areas are controlled by the various religions or sect groups. Providing a complicated overlay which represented these groups, along with the energy reserves located in each area, helped attendees better understand the friction points created when one particular group controls larger percentages of the energy supply. Cheek also discussed the important role culture plays in the regions, and emphasized cultural considerations were extremely important when planning any kind of strategic or tactical operations.

"The thing that's interesting is when you look at mineral and energy reserves in the CENTCOM area of responsibility (AOR); about 60 percent of the world's sources of energy will flow through this area., through the Strait of Hormuz, and out to the rest of the world. So, does it have a strategic impact on the United States and our allied nations? Absolutely." Cheek stated.

The strategic interest in this area is enormous, and Cheek implied we have significant challenges in maintaining these interests and in keeping the energy flowing. He shared some insight into "Tanker Wars," and specifically mentioned the attack on the USS Stark on May 17, 1987, which was hit by two Exocet, anti-ship missiles fired from an Iraqi Mirage F1 aircraft. Although the first missile didn't detonate, it left a path of flaming rocket fuel in the crew quarters. The second missile hit almost the same entry point, killing 37 Sailors and injuring 21 more.

Cheek also discussed the military's 'old' war plans, which were geared to



MG Gary Cheek speaks to the audience at the 2012 Fires Seminar. (Photo by Rick Paape, Jr., U.S. Army)

a large-scale military attack if the U.S. had engaged with Iraq. He said this type of attack is not likely for Kuwait, at least in the near-term. He referred to the previous night's dinner speech by GEN (Ret.) John Abizaid, a former CENTCOM commander, who spoke on current threats and the likely outcomes of war. Both Cheek and Abizaid agree that we no longer face the same type of enemy as we fought in past wars. This enemy has "small boats, mines, advanced missiles, and ballistic missiles. A lot has changed in the past 20-30 years since the tanker war. They have many, many more of these boats, and ballistic missiles, and are more advanced...they are a much more formidable opponent," said Cheek.

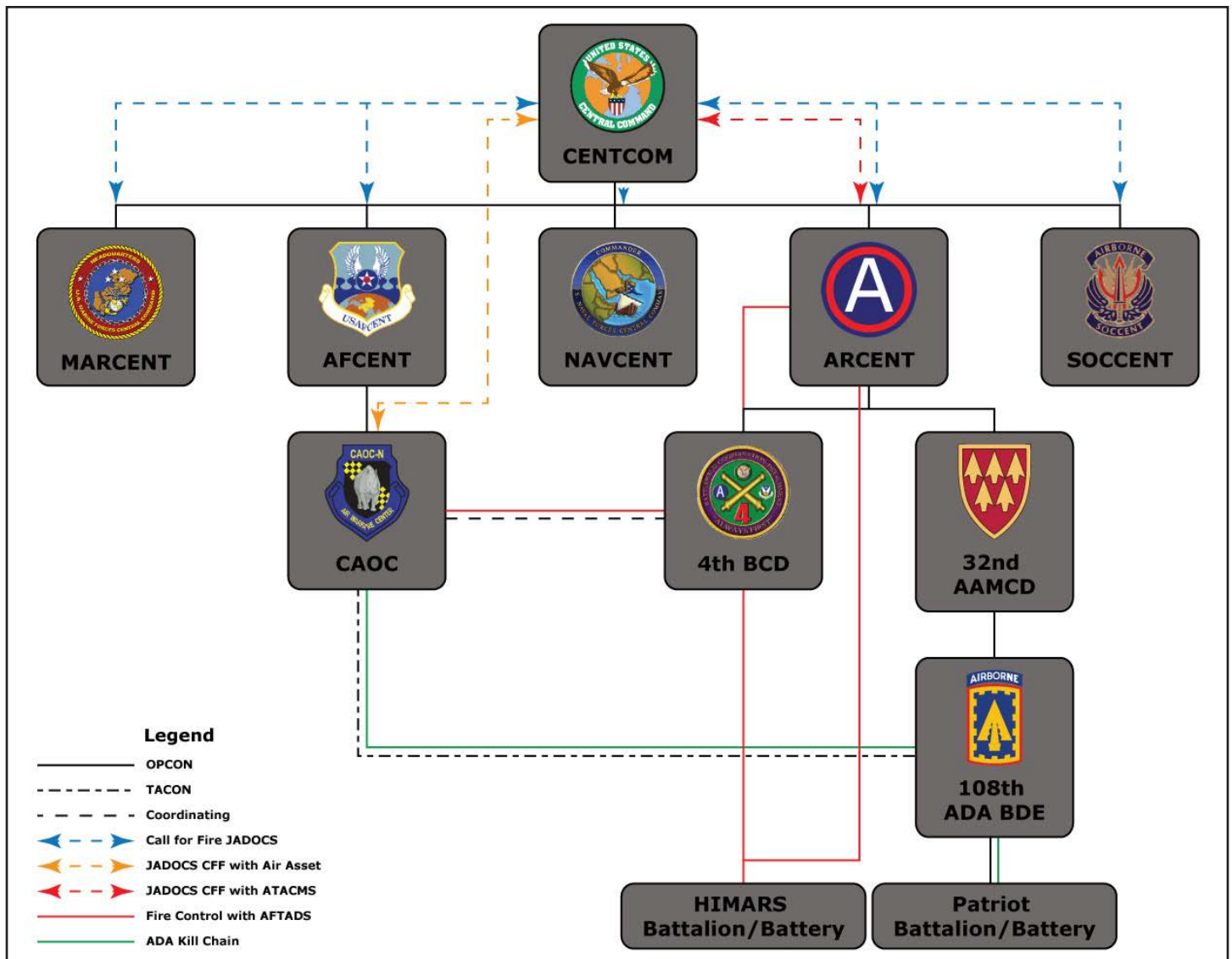


Figure 1: CENTCOM area of responsibility (Illustration by Rick Paape, Jr., U.S. Army)







Figure 1 is an overview of how CENTCOM is preparing to contend with the Middle East threat as they plan for the ‘next fight.’ Cheek laid out the organization chart but would not go into the warfighting function of each of the organizations, and limited his presentation to the Fires specific missions of air and missile defense and long-range Fires. The first layer under CENTCOM is the combined air operations center, with the Allied Forces Central Europe (AFCENT) commander in charge of air and missile defense. Cheek said although the Army provides the forces for manning, it is AFCENT who controls the air space. The Patriot forces, up and down the Persian Gulf,

are continually tracked to ensure readiness and accountability. They also run exercises with AFCENT and partner nations to test their readiness plans. Cheek talked briefly on the procedures for incoming alert notification and how they deconflict airspace in case of an emergency. The procedures have tested well and he is confident they are valid and will provide adequate protection for the region.

In contrast, when Cheek looked at long-range Fires, a message would be sent directly to “what is essentially a single HIMARS battery attached to a Fires battalion, or the maneuver brigade in Kuwait.” An alternate method of initiating a fire mission

using AFATDS was also discussed. Cheek stated ARCENT might work with the Fires Center of Excellence to “take a look at this and see how we could do things differently to improve long-range Fires for a theater community.”

In comparing the two, Cheek had the highest compliments for air defense for what’s going on in CENTCOM AOR. BG John Rossi, commanding general, 32nd Army Air and Missile Defense Command, although not in country all of the time, gets directly involved in what’s going on. He continuously makes recommendation on sourcing units and is actively involved with AFCENT staff. He is the expert on air

	Air Missile Defense	Field Artillery
 Kuwait	Patriot	SMERCH ★
 UAE	Patriot	HIMARS
 Qatar	Roland	MLRS ★
 Bahrain	Hawk	MLRS
 Jordan	Hawk ★	HIMARS
 Saudi Arabia	Patriot	MLRS ★

★ Foreign Military Sales Pending

Figure 2: Partner nations' capabilities (Illustration by Rick Paape, Jr., U.S. Army)

and missile defense. Cheek also mentioned COL Sean Gainey, commander, 108th Air Defense Artillery Brigade, is assigned in theater and runs the day-to-day operations of the Patriot battalion there. He oversees certification and tests of units, and provides one-on-one leadership for the battalions, as well as mentorship for their commanders.

On the subject of long-range Fires, Cheek pointed out the fact there is no general officer Army leadership in support of Fires... no corps artillery to provide support like Rossi does for the ADA. "We have no Field Artillery brigades in theater. We will look closer at this to bring in the colonel-level leadership to help with the coordination and integration of long-range Fires...that's what higher headquarters provides." The lack of senior leadership for the Fires community in theater creates many problems, not the least of which is certification.

Figure 2 highlights the partner nations who work with ARCENT and the systems each nation has the capability to employ. Cheek said working with these nations is critical to the support of the region. "We want them to be part of the fight and integrated into the battle." Building this partnership must exist in order to be successful against any adversary in the area. "It is much more difficult to bring someone new in, for example, the Emiratis...we have to move at their pace" and proceed on the partner nation's time schedule, he explained. "We want to raise the level of our partner nation's skills to the same as our level, so we can go home. That's not something you get to in six months or a year. We've been there (in Kuwait) 20 years, but we've been in Korea 50 years, Europe 60." Cheek made the point that it just takes time to bring these partner nations to a point where they are self-sufficient and can provide their own protection from both internal and external threats.

Cheek addressed several questions from the audience before ending his briefing by applauding the air and missile defense communities for "getting it (deployments to theater) right," adding the need for the Fires community to make a constructive effort to reorganize and restructure how they deploy and use long-range Fires assets in theater. He also reiterated the need for joint exercises in theater to practice their war plans.

Integrating Joint Force Offensive and Defensive Fires Panel

By Mark Norris

Commanding General of the U.S. Army Space and Missile Defense Command/ Army Forces Strategic Command (USASMDC/ARSTRAT), LTG Richard Formica's Fires Seminar 2012 panel discussion focused on developing the right mix of offensive and defensive Fires needed to defend the Pacific and Central Command areas.

"As I recently stated in my congressional testimony, given shrinking defense dollars, we need to get this mix correct," Formica said in opening remarks. "We've got a pretty good system of ballistic missile defense with command and control, sensors, and shooters in the right place. But offensive-defense integration (ODI) is critical to our success."

Exercises have proven using only defensive Fires are not enough to deter enemy aggression, so the Chairman of the Joint Chiefs of Staff, GEN Martin Dempsey, tasked Formica to prepare a Space and Missile Defense Command (SMDC) offensive-defense Fires integration strategy for the Army of 2020.

Every effort of joint ODI coordination is a current work in progress, and is now under discussion in accordance with Dempsey's direction. "One of the things we can do in this conference is to establish the right mix of ODI to provide others as we move forward," Formica said.

Joined by a panel of six subject matter experts, Formica let each address their specific area of the Fires support issues.

BG James Dickinson, commanding general of the 94th Army Air and Missile Defense Command (AAMDC), Hawaii, established the focus of the panel by explaining his responsibilities and capabilities in the Pacific Command (PACOM) area. Pointing out PACOM's tremendous geographic area, which encompasses a third of the earth's surface, Dickinson explained how the area's complex enemy networks of anti-access and aerial denial have transformed the U.S. arsenal. Weapons systems once designed to deter and fight wars with assured access in a permissive environment, Dickinson said, are now designed to excel when access is challenged in a nonpermissive environment. "Our adversary can make a strategic advantage through the use of ballistic missiles, and in some cases those missiles may be able to reach the homeland. So every scenario we can now think of at the tactical, operational and strategic response levels must be carefully planned and rehearsed," Dickinson said. "We are now making conscious decisions to balance between defensive and



LTG Richard Formica introduces the panel members for the discussion on integrating joint force offensive and defensive at the 2012 Fires Seminar. (Photo by Rick Paape, Jr., U.S. Army)

offensive Fires; because the better balance we have, the better able we are to protect the assets we need to protect."

Next to speak was MG Steven Foster, deputy commander of Allied Forces Central Europe (AFCENT). Foster's primary mission is to work with U.S. partner nations to take advantage of their asset availability. "The challenge is integration of assets with limited funds," Foster said. "Afghanistan is well coordinated through command there. But it is in the joint region defense of the Arabian Gulf that we need to determine the coordination of all our Fires." AFCENT has been working with partner countries for many years now to gain access to their weapon inventories, with little success. "We have a lot of bi-lateral initiatives on the way in all these countries individually, but we need to see greater progress," Foster said. "Not only do we need a proven plan [of shared assets], but we must be able to fund it. We're not there yet, and we are currently looking at the overseas contingency operations (OCO) budget, which if passed, will erase everything we're doing."

"How do we achieve the goal of integration with limited funds?" added Navy Capt. William Johnson from Formica's commanded Joint Functional Component Command-Integrated Missile Defense (JFCC-IMD). Johnson emphasized the joint need to work together.



The Fires in Support of Offensive, Defensive and Stability Tasks Panel discusses their topics during the 2012 Fires Seminar. (Photo by Rick Paape, Jr., U.S. Army)

“Joint Fires, joint capabilities, and joint operations are exactly how we need to operate. From the missile defense perspective, this is a global game. It’s a global problem that we’ve got to solve.” He then addressed the importance of OID. “We must integrate the offense and the defense, and we must have joint targeting priorities that cross individual areas of responsibility to go global. It’s 99 percent planning,” he said. “We must all come up with similar priorities, similar planning tools, and target templates, to make all that work.”

“Army Fires are good...” Johnson continued, “joint Fires are better, and when you link offense and defense together, you can develop some significant capabilities that will help us crack this nut.”

Dr. Mark Swinson, director of Space and Cyberspace Technology at USASMDC/ARSTRAT spoke next. “When we think of electronic warfare (EW) we think of jamming signals,” Swinson began. “But over the last 30 years, there has been a real revolution in where our microprocessors are located. Electronic Fires (EF) are a new generation of weapons that are now positioned for attack of personnel and facilities, as opposed to signals. Lasers and microwaves are credible.”

Dr. Swinson pointed out the success of an early air defense laser weapon experiment, but said that moving it was tantamount to moving a house. “Today we may not fly over Pakistan,” Swinson said, “but we can now send tactical unmanned aerial vehicles with electronic Fires—and unlike deterrent nuclear weapons—they know we’ll use it. To win, you must have a decisive capability, and EF fulfills that. There is no maneuvering against a speed of light weapon.”

COL Randall McIntire, commander, 69th Air Defense Artillery Brigade, Fort Hood, Texas, spoke on counter-rocket, artillery, and mortar (C-RAM) system. Addressing

the mix of offensive and defensive Fires the Army is now examining, McIntire pointed out how the indirect fire protection capability of C-RAM is now helping prevent the catastrophic loss of personnel and equipment with its warning and intercept capabilities. Focusing on GEN Dempsey’s OID initiative, McIntire emphasized the importance of joint enabling sensor networks on the battlefield. “It is an air defense and Field Artillery necessity,” he said. “In Operation Iraqi Freedom and Operation New Dawn, C-RAM intercepted 120

Fires attacks protecting the lives of U.S. and coalition Soldiers and equipment. Our sensors were networked and we worked with the host nation military. C-RAM not only protects lives, it provides an environment in which the force can fulfill its mission without the worry of incoming attacks.” McIntire concluded his talk by assuring the seminar audience that C-RAM is already an important asset of the 2020 Army. “Improving indirect Fires protection capability for the Army of 2020 is now before us in C-RAM,” McIntire said. “As we shore up its offensive defense Fires integration, we will see where we’re going in the future.”

COL Robert Morschauser, commander, 18th Fires Brigade, Fort Bragg, N.C., concluded the panel session from a Field Artillery perspective with his presentation on how Fires brigades can prevent, shape, and win any future war. “We’re thinking about regionally aligning Fires brigades with divisions and combatant commands (COCOMS) to build relationships and promote foreign exchanges,” Morschauser said. “We need to push back in the direction of becoming more ‘DivArty-like’ Fires brigades that can work with brigade combat teams (BCTs) and the division to synchronize at the joint task force (JTF) level.” Morschauser said this kind of coordination hasn’t been worked at the operational exercise level yet, but is taking place in his brigade.

Finally, the 18th FiB commander said that adding ADA battalions to these new ‘DivArty-like’ formations would advance the ODI initiative and provide a picture of what the Army of 2020 could look like.

Mark Norris is the Congressional Liaison Officer, Office of Strategic Communications, Fires Center of Excellence, Fort Sill, Okla.

Photographs from the 2012 Fires Seminar

Photos by Rick Paape, Jr.
Art Director



(Top left) LTC(P) Jen Eickhoff, from DAMO, Air and Missile Defense, Army G-3/5/7, discusses the Army's Air and Missile Defense Strategy and Execution during the Air Defense Artillery. (Top right) LTC Kelly Ivanoff provides information on Field Artillery Human Capital during the Field Artillery officer breakout session. (Left) COL Peterson poses a question to the Fires in Decisive Action panel, chaired by MG Thomas Vandal. (Bottom) MG Mark McDonald and CSM Dwight Morrissey unveil the sign during the Constitution Park rededication ceremony at Fort Sill, Okla. Constitution Park, which is dedicated to the memory of fallen Fires Soldiers, was relocated near the Field Artillery museum, making it more accessible to visitors of Fort Sill.





(Top left) The crowd played a crucial role within the 2012 Fires Seminar by posing questions and furthering the discussion of the keynote speakers and panel discussions. (Top right) Soldiers, DoD civilians and contractors were able to see equipment being developed and tested through various DoD acquisition programs. (Right) After his brief, GEN Robert Cone, commander of the U.S. Army Training and Doctrine Command, spoke with LTG (Ret.) Dutch Shoffner, to explain the future implications of his plan for the Fires future leaders. (Bottom) During the Air Defense Artillery Senior Enlisted Breakout Session of the 2012 Fires Seminar, Mr. James Wall discusses the importance of knowledge management to the ADA branch.



Fires

2012 Photo Contest

The Deadline is Approaching! Get Your Submission in Today!

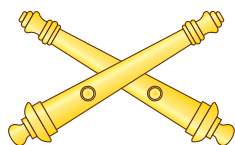
The goal of our annual photo contest obtains high-quality photos that tell the story of today's U.S. artillery professionals conducting training or engaging in full-spectrum operations. These photos may be used as a cover or other purpose within the Fires Bulletin or the Fires Center of Excellence. The competition is open to all military or DoD civilian personnel. Deadline for all submissions is Aug. 13, 2012.

Photo Categories



Air Defense Artillery

1. Combat and Full Spectrum Operations
2. Training



Field Artillery

1. Combat and Full Spectrum Operations
2. Training



For further information and official rules check our website or scan the code with your smartphone.
<http://sill-www.army.mil/firesbulletin>

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fires.bulletin@us.army.mil or
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2011 Winning photo for Combat by CPT Wolf-Ekkehard Hindrichs



2011 Winning photo for Training by 2LT Justin Nash

Fires in Decisive Action:

Developing Capabilities Required to Win the Next Fight Phase 2

By MAJ D. J. Hurt

Editor's Note: The original article of the same name, published in the May/June Fires Bulletin, laid out the critical capability gaps of the Fires force, specifically addressing each gap, the current investment and the investments proposed to elevate each gap. It also laid the groundwork for discussion at the 2012 Fires Seminar. This 'Phase 2' article is a follow-on to update the force on those discussions and how they may affect the Army of 2020 and the Fires force. It also discusses the current investments, residual risks, and proposed solutions within the Fires forces' current capabilities to win the 'next fight.'

Assessment. Lessons learned, feedback from the operational force, and assessments from multiple experimental venues indicate that combined arms maneuver and wide area security require improved indirect Fires, air and missile defense, electronic attack, and joint Fires integration. The ability of Army Fires to integrate and operate with joint, interagency, intergovernmental, and multinational (JIIM) partners from tactical to strategic levels is essential to delivering timely and effective offensive fires to preempt enemy actions and defensive fires to protect friendly forces, population centers, and critical infrastructure. The Fires Capabilities Based Assessment identified the following critical capability gaps:

- Fires and ADA brigades, and their subordinate battalions, lack the ability to clear the airspace and gain authorization to employ Fires in JIIM and rules of engagement (ROE) restricted environments, adversely impacting the ability of Field Artillery (FA) and Air Defense Artillery (ADA) systems to conduct timely engagements of threat ground and air systems, respectively.
- Maneuver forces lack defense against unmanned aerial surveillance (UAS). Current ADA systems have limited detection and engagement ranges to preclude threat aerial surveillance of friendly forces and defended assets, leaving forces and assets at risk of attack by ground or aerial systems cued by UAS.
- Fires and ADA brigades, their subordinate battalions, and Fires battalions in BCTs have limited organic beyond-line-of-sight communication capabilities to integrate with Army and JIIM partners across the operational area. Dismounted observers lack the ability to rapidly locate ground targets to a target location error (TLE) of less than or equal to 10 meters in all conditions, without target mensuration, preventing engagement with precision munitions by indirect fire systems. Brigade combat teams (BCTs) lack protection against rocket, artillery, and mortar (RAM) attacks when outside fixed installations (e.g., forward operating bases), exposing them to

potential losses of personnel and equipment. Current counter-RAM (C-RAM) capabilities are positioned to defend such fixed assets and lack mobility to maintain pace with BCT elements.

- Patriot battalions lack sufficient capabilities to protect a supported commander's critical assets against tactical ballistic missiles.

Fires Investments. While our force provides the finest Fires support in the world with devastating accuracy, firepower, and a wide range of effects, it has been focused on a predominantly conventional threat. The current task for the Fires force is to be decisive in combating hybrid threats, while maintaining conventional superiority through a versatile mix of tailorable and networked forces. As we look to the 21st century and an era of persistent conflict, there are shortfalls that we must overcome to provide commanders a sustained flow of trained and ready forces for a full range of military operations and hedge against unexpected contingencies. This paper does not address every capability and its associated gap(s). This paper only addresses the emerging top priority capability gaps:

1. Clearance of Airspace
2. UAS Defense
3. Beyond Line of Site Communications
4. Rapidly Locating Ground Targets
5. C-RAM
6. Commander's Critical Asset List.

Synopsis. Currently, Fires forces are capable of integrating and operating within the Army's combined arms team and JIIM environment, providing organic, 24/7, all weather, offensive and defensive Fires at a substantially reduced cost when compared to other joint and Army capabilities. Army Fires are more economical than joint Fires while providing comparable precision, better responsiveness and the only organic all weather Fires capability to Army forces. Army Fires in 2020 will be a combination of offensive and defensive Fires capabilities that are employed together through Fires organizations that contain the right mix of both offensive and defensive Fires systems and platforms.

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Developing Capabilities to Win the Next Fight

An overview of the presentation by MG Heidi Brown

By Paul E. Jiron
Assistant Editor

On Tuesday, May 15, 2012, MG Heidi V. Brown, director for test for the Missile Defense Agency spoke to the Fires Center of Excellence's Fires Seminar attendees about what it will take to win the 'next fight.' In her current position, Brown is responsible for planning, programming, budgeting, staffing, and managing a comprehensive Ballistic Missile Defense System (BMDS) test program to characterize ballistic missile defense capabilities and support fielding of an integrated and effective capability to the warfighter. In addition to directing the BMDS test program, she ensures the optimal allocation of resources, responsibilities, and functions within the Test Functional Area workforce, including test design and execution. In her long career, Brown has served in various command and staff positions throughout the air defense community.

As commander of the 31st Air Defense Artillery Brigade, Brown was the first female to command and lead an Air Defense Artillery brigade into combat and has the added distinction of being the first female general officer in the Air Defense Artillery branch.

In her current position with the MDA, Brown leads the testing of front line missile defense capabilities that deter, dissuade and, should deterrence fail, defeat ballistic missiles targeting the homeland, our deployed forces, friends and allies. In support of the geographic combatant commands, the MDA is charged with developing active defense capabilities that enable you, the warfighter, to hold the line against ballistic missile attacks until additional forces can be brought to bear to repel and defeat the aggressors.

Brown started her briefing with the following quote: "Now, more than ever, synchronizing and optimizing Fires will be required to win the next fight against a technologically inferior, but numerically superior force..." She then went on to quote Bruce Catton, author and historian who specializes in the Civil War era, who had this to say about modern warfare:

"A singular fact about modern war, is that it takes charge. Once begun, it has to be carried to its conclusion, and carrying it there sets in motion events that may be beyond men's control. Doing what has to be done to win, men perform acts that alter the very soil in which society's roots are nourished. They bring about infinite



MG Heidi Brown speaks to the audience at the 2012 Fires Seminar. (Photo by Rick Paape, Jr., U.S. Army)

change, not because anyone especially wants it, but because all-out warfare destroys so much that things can never be the same again."

Against the backdrop of Catton's observation on modern warfare, Brown went on to discuss the next fight, and several Fires capabilities planned that will better equip and enable the Army of 2020 to emerge victorious from it.

Brown then went on to talk about lessons from our past and how they will shape the Army of 2020. She stated "Before we can shape and design capabilities for the next fight, we must first recognize the lessons



PVT Michelle Veselkov spots for PVT Tommy Burgoon operating the launch control unit to position the Patriot missile launcher to its line of fire during their capstone exercise March 15, 2012 at Fort Sill, Okla. The Soldiers were nearing the end of their Advanced Individual Training for the Patriot launcher enhanced operator and maintainer career field. (Photo by James Brabeneck, U.S. Army)

of past fights.” Brown said the following key lessons of our past will shape future Fires.

Integrated air and missile defense (IAMD) **synchronization.** This not only includes time on target, but also synchronizing active defense, like upper and lower tier ballistic missile defense (BMD) element Fires, with offensive counter-air, field artillery, and maneuvering forces. Central to the BMD System’s mission to ‘hold the line’ is defending critical centers of gravity, like aerial and sea ports of debarkation (APODs and SPODs). The end state is to provide time to deescalate hostilities and, if de-escalation fails, ensure the timely, seamless flow of Time-Phased Force and Deployment Data, or “TIP-FID”, resources into a theater of operations. Annual Republic of Korea and United States Combined Forces Command Reception, Staging, Onward Movement and Integration (or RSOI) exercises stress the synchronization and seamless integration of inbound modified table of organization and equipment (MTOE) and table of distribution and allowances (TDA) assets to defeat a numerically superior adversary, for example, in relief of the 2nd Infantry Division in the Republic of Korea.

Unified land operations (ULO) and combined arms maneuver / wide area security (CAM / WAS).

Enabling our leaders to seize, retain, and exploit the initiative to gain and maintain an advantageous position in sustained land combat is essential for favorable conflict resolution. We achieve this advantage by destroying our adversary’s forces; protecting our forces, centers of gravity and population centers; and forging partners and coalitions. CAM / WAS are key enablers to successfully prosecuting ULO and, in combination, create the ability to conduct Full Spectrum Operations.

Joint / multi-national force integration / communications / identification friend or foe (IFF). This includes capabilities for classifying, identifying, and discriminating friendly, neutral, unknown, and hostile aerial platforms and objects. The message is simple... the airspace is getting downright busy. Missiles and missile technology are not the only proliferation challenges. So is unmanned aerial system (UAS) proliferation, and the ability to hold at risk our soldiers in the field and their support infrastructure.

Brigade combat team (BCT) and critical asset list (CAL) defense against rocket/artillery/mortar

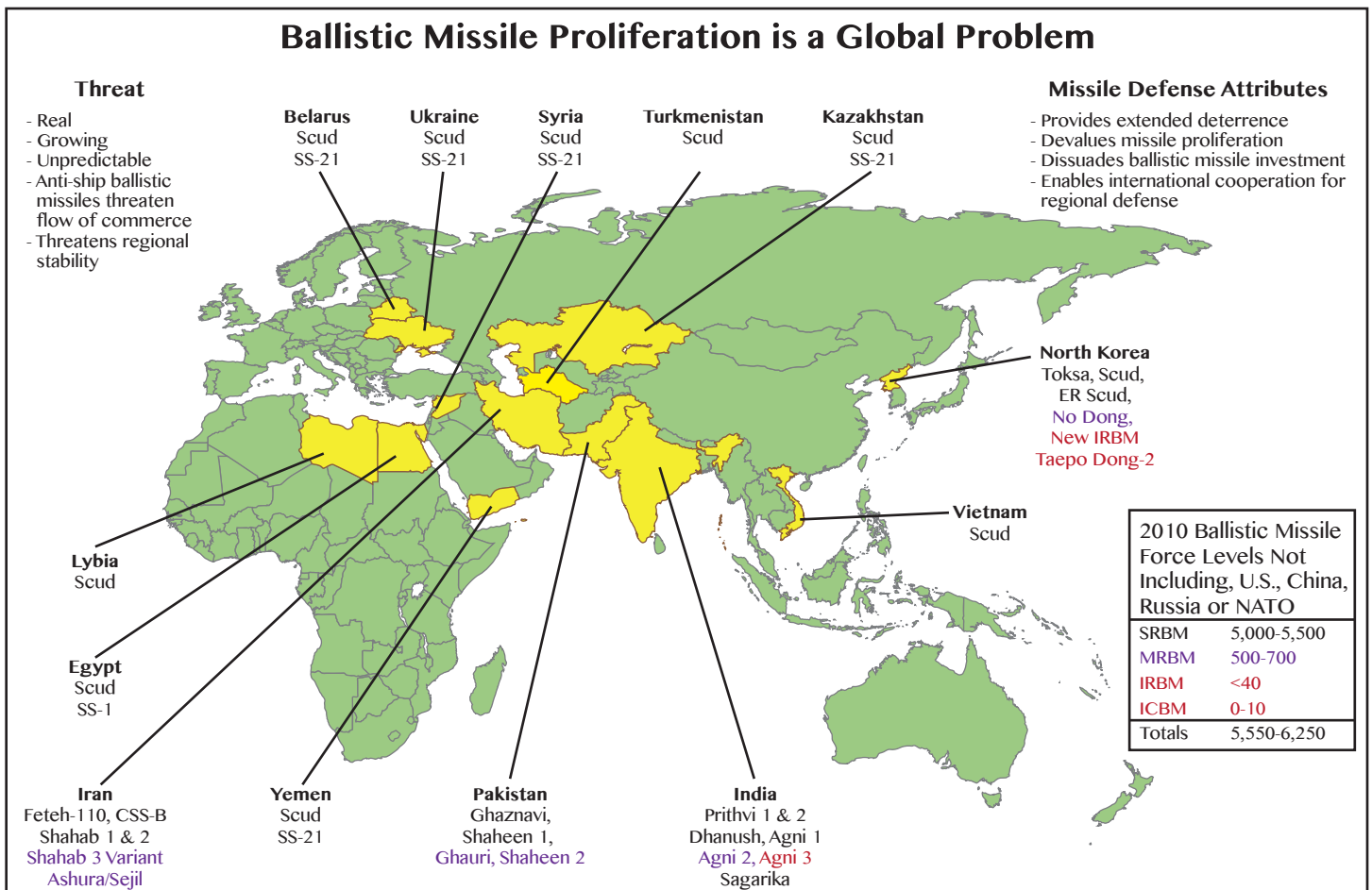


Figure 1: Ballistic missile proliferation continues to grow at an alarming pace. (Illustration by Rick Paape, Jr., U.S. Army)

(RAM). BCT and commander’s CAL defense is priority one, requiring flexible, interoperable, adaptable Fires capability to ensure freedom of action and maneuver to optimize Fires and win the next fight.

AMD common operating picture (COP)- U.S. and joint. Joint and combined military operations require a COP providing timely, unambiguous, actionable information to the warfighter to assure the success of any military campaign. Regardless if this is provided through Global Command and Control System (GCCS)-Alpha, Air and Missile Defense Workstation (AMDWS) or, in support of BMD operations, the MDA’s Command and Control, Battle Management and Communications (C2BMC) capability, seamless, holistic intelligence, surveillance, reconnaissance, and mission command information must be provided to leaders of all combat, combat support, and combat service support units prosecuting missions across the operational continuum. This encompasses all echelons at the strategic and tactical levels of war.

Brevity codes (U.S. and joint U.S. / international). Synchronizing and optimizing Fires—especially in a joint and multi-national theater environment—requires succinct, unambiguous communications between C2

elements and shooters to ensure efficient and effective targeting and, as the battle evolves, maximizing remaining weapon inventories. For example, if we cannot clearly, rapidly articulate when weapons inventories are at critical levels across a joint or multi-national environment, CAM may proceed at considerable risk. In southwest Asia, joint U.S. European Command—Israel Defense Forces brevity codes and tactics, techniques and procedures (TTP) have been developed and are annually exercised to ensure BMD weapon allocation is optimized throughout the spectrum of conflict.

The general then went on to talk about the future threat environment confronting the Army of 2020. She said, “We learn and adapt. So do our adversaries. In perhaps the region with the greatest volatility and geopolitical instability, the Middle East is a virtual petri dish for the next fight. Possessing elements similar to what we’ve encountered in OIF and OEF, the Middle East is a flashpoint that may not wait until 2020 to ignite. The 2006 Lebanon War was perhaps a preview of coming attractions.”

She went on to discuss the 2006 Lebanon War, which was a 34-day military conflict in Lebanon, northern Israel and the Golan Heights. The principal parties were

Hezbollah paramilitary forces and the Israel Defense Forces (IDF). The conflict started on 12 July 2006, and continued until a United Nations-brokered ceasefire took effect in the morning on 14 August 2006. Hostilities did not formally cease until 8 September, 2006 when Israel lifted its naval blockade of Lebanon.

Over the course of this 34-day conflict, more than 4,000 Hezbollah rockets were launched against Israeli population centers. Though unguided and, by our standards, rather archaic, they wreaked havoc, fear, and despair among those who endured the constant barrage of these terrorist weapons.

Brown said, "This is a harbinger of things to come. The Army of 2020 should expect more and better in the next fight... especially since the region has been actively reloading since 2006."

The next threat Brown addressed was ballistic missile proliferation. She said, "proliferation continues at an alarming pace. As a result, the next fight will require greater active defense capability, adaptability,

interoperability, targeting accuracy, synchronization, and flexibility of Fires to suppress and counter long range rockets and ballistic missiles possessing ever increasing range and accuracy."

Another threat Brown talked about was the fact that we are outgunned in the Korean theater of operations (KTO). She said, "With potentially hundreds of North Korean ballistic missiles arrayed across the Demilitarized Zone (DMZ), our adversaries counter a lack of technological superiority with numbers. However, as the Ballistic Missile Defense Report (or BMDR) testifies, it must be emphasized our adversaries are not content with just numerical superiority. Both North Korea and Iran are aggressively pursuing technological advances in missile propulsion, guidance, staging and countermeasure development in an effort to level the technological playing field."

Brown said there will never be enough BMDS capability. Therefore, it's critical to optimize limited active defense capability through synchronizing with

A Terminal High Altitude Area Defense (THAAD) interceptor is launched during the system's first operational test at the Pacific Missile Range Facility, Kauai, Hawaii. The test was conducted by the Ballistic Missile Defense System Operational Test Agency with the support of the U.S. Missile Defense Agency. During the test the THAAD system engaged and simultaneously intercepted two ballistic missile targets. (Photo courtesy of the U.S. Missile Defense Agency)



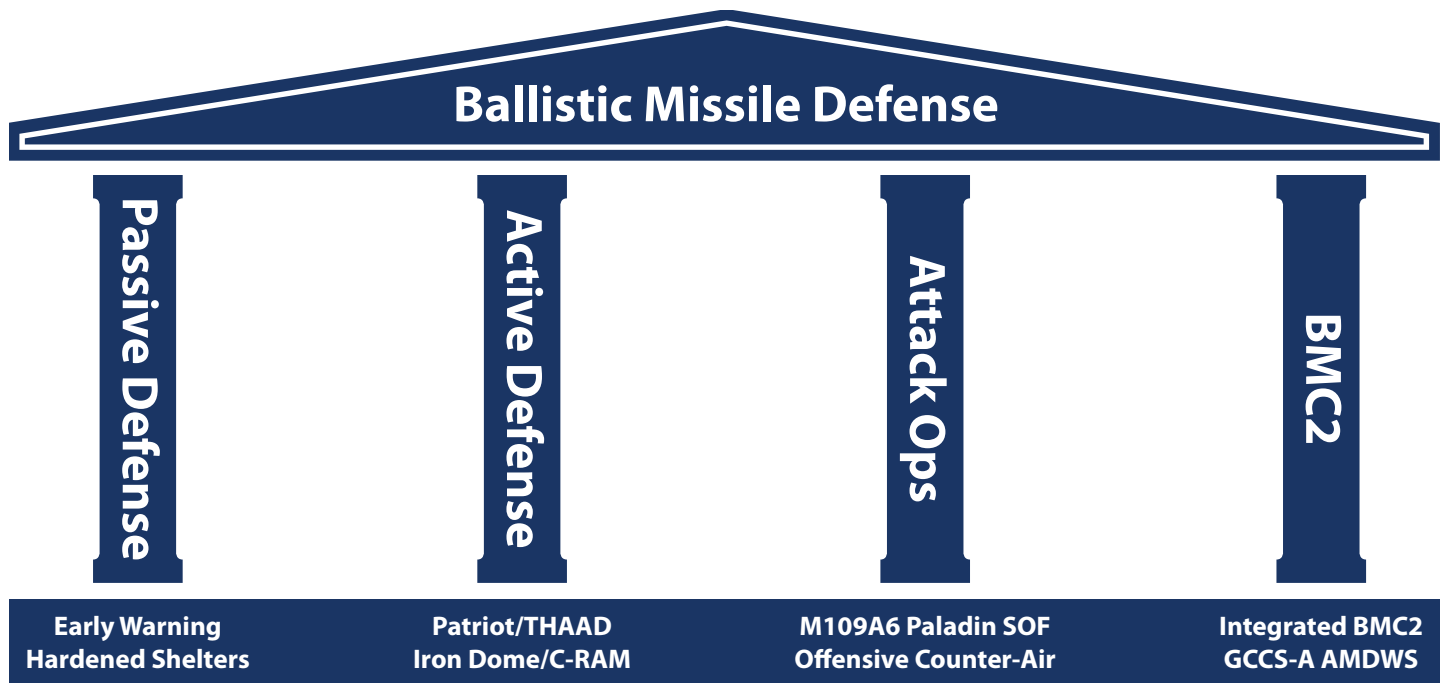


Figure 2: The four pillars of ballistic missile defense must be synchronized to optimize fire effects. (Illustration by Rick Paape, Jr., U.S. Army)

other ‘pillars’ of missile defense, especially attack operations. She went on to discuss the four pillars of ballistic missile defense:

1. **Passive defense.** Early warnings and hardened shelters
2. **Active defense.** PATRIOT, THAAD, Iron Dome and C-RAM
3. **Attack operations.** M109a6 Paladin, special operation forces and offensive counter-air
4. **Battle management command and control (BMC2).** Integrated BMC2, Global Command and Control System-Army (GCCS-A), Air and Missile Defense Workstation (AMDWS)/Command and Control Battle Management and Communications (C2BMC)

Next, Brown addressed future Fires capabilities and their role in winning the next fight. She said the FA and ADA share common ground with the fire direction center (FDC). “Though conceived under FA, the FDC, its organization and employment, also have ADA and active defense application.” Both FA and ground based missile defense (GMD) FDCs at the battalion level are responsible for recording enemy positions, tracking available battery munitions, and determining the optimal response for engaging a target identified by the FA forward observer or GMD surveillance sensors. This ‘common ground’ further enables greater FDC development efficiency, economy, and synchronization of Fires capabilities.”

Joint initiatives. Closer to home, the MDA is actively working with Fort Sill Soldiers on the Joint Tactical Air Picture (JTAP). This Army-led, Joint Integrated Air and Missile Defense (JIAMDO)-sponsored initiative seeks to improve the integrated Air COP by increasing Tactical Data Interface Link-Joint (TADIL-J) message

transfer and throughput. Over time, we plan to integrate this capability into our Global Readiness and Global Defender exercises to better understand how to employ this capability under Full Spectrum Operations, including understanding JTAP – IAMD dependencies and integration with active defense planning and employment.

Brown also discussed the way ahead in development and testing of several active defense capabilities central to Fires. She said, “As the lessons of theater conflicts are further analyzed, notably the 2006 Lebanon conflict, OIF, and OEF, a pattern emerges that exposes further gaps in Fires—especially in our ability to defend our critical assets against ballistic missile and RAM attacks. With the battle-tested Patriot Advanced Capability and the advent of the Terminal High Altitude Area Defense, or THAAD weapon system—and the ability to synchronize Fires between these capabilities—point and area defense against ballistic missile attack has become a reality.” She said analyses are currently underway to identify the most effective and affordable means to close critical Fires gaps against RAM.

Brown talked about defense in depth or a layered defense against ballistic missile and rocket attacks. Given lower tier ballistic missile weapon system limitations, ‘Iron Dome’ or like systems are also required to protect Patriot battalions and the supported commander’s critical assets against tactical ballistic missiles and rockets.

She said, “In a broader war, it is possible that Iron Dome and counter-rocket artillery and mortar (C-RAM) weapon systems could be used to protect emergency stores, Army installations, sensitive facilities, and air

bases to allow them to carry on fighting, even under rocket attack.

Brown continued, saying senior analysts clarify that tactical success cannot serve as a strategic solution for missiles from Iran and Syria and some of the more accurate and destructive missiles held by Hezbollah in Lebanon. The scenarios for a war range from limited-to-moderate, such as a limited missile attack launched by Hezbollah, to major combat operations involving several adversary states prosecuting missile operations simultaneously. In order for the U.S. and our allies to emerge from these scenarios with minimal damage, we need a layered defense system including upper tier (like THAAD and Arrow 3) and lower tier elements (like Patriot and Israeli Arrow 2) and, for rocket, artillery, mortar defense, and tactical missile defense, Iron Dome and C-RAM. The upper tier and all three lower tier systems exist while only Iron Dome has reached operational status. Defending BCTs and CAL assets is still a long road, but Iron Dome has demonstrated operational utility.

She said the U.S. understands this need. The MDA is actively engaged in international missile defense initiatives. We have been a key partner and enabler of Israeli missile defense capabilities through funding and testing of their Arrow antiballistic missile program, and are currently establishing an Iron Dome Project Office. On the basis of an analysis of the last round of fighting in Gaza, a U.S. Defense Department spokesman has issued a special announcement on behalf of defense secretary Leon Panetta that he will bring to Congress a resolution for budget approval to equip Israel with more Iron Dome batteries.

Brown talked about future BMDS capabilities planned over the FYDP including six additional THAAD batteries by 2014. Like Patriot, THAAD is a low density, high demand asset. The message to you today is that we are “peddling as fast as we can” to provide you with these critical resources as soon as possible, however, within established quality control checks and balances.

Regional / theater operational testing on the rise. Brown addressed the maturing nature of the BMDS Test Program over time. With that maturity comes complexity and operational tests supporting system capability deliveries—each of these tests will use multiple ranges and multiple threat targets and interceptors in the air simultaneously.

She went on to explain that since the dawn of the computer age, military acquisition agencies have developed and fielded capabilities with increasing complexity, performance, and lethality. The need to test these capabilities under operationally realistic conditions to ensure warfighter expectations and supporting doctrine account for fielded reality presents significant challenges to development and operational testers alike. Unlike traditional military acquisition programs, the Missile Defense Agency has been directed to field

capabilities as soon as technically possible. Of consequent concern is “how do I reduce performance uncertainty and increase warfighter confidence in to-be-fielded capabilities?” Moreover, “how does test and evaluation demonstrate and enable the seamless integration of capabilities into existing combatant command missions and systems?” In other words, does the warfighter understand how to properly fight with the capabilities the developer has built?

Until weapon systems are battle-tested, warfighters live with capability uncertainty as a byproduct of the military capability acquisition process, especially where limited or one-of-a-kind weapon systems are procured. Reducing this uncertainty and increasing warfighter confidence in performance is not only critical prior to fielding new and upgraded capabilities, but must be a cornerstone of our test program. Flight and ground testing are the principal venues for achieving this objective. By exposing the warfighter to the to-be-fielded hardware, software, and communications under operationally representative conditions, the warfighter will be better prepared to prosecute the mission should deterrence fail. The ‘test as we fight approach,’ or as GEN Martin Dempsey stated: “Win, learn, focus, adapt, win again: the scrimmage should be as hard as the game,” is further predicated on the following:

1. Utilizing intelligence-credible scenarios in test. For flight tests, this includes launching operationally representative targets on operationally realistic trajectories
2. Introducing tactical element hardware and software
3. Establishing operational communication networks connecting operational assets or operationally representative test articles or surrogates
4. Accommodating Combatant Command C2 structure and providing for active warfighter participation including military operators prosecuting the mission in accordance with approved doctrine and supporting TTPs from home stations
5. Recognizing flight and ground tests cannot answer all mission critical questions, augmenting flight and ground testing with warfighter exercises and wargames

In her closing statement, Brown said, “Today we are confronted with one of the most militarily challenging tasks in the history of modern warfare. As Bruce Catton aptly observed, the next war will take charge, and once begun, it has to be carried to its conclusion.” She added it was her sincere hope that what we accomplish during the course of this seminar will enable a conclusion that will resonate throughout history. “That when the ‘next fight’ commences, and sets into motion ‘events that are beyond our control,’ Fires will carry the day.”

Fires in Decisive Action Panel

By Paul E. Jiron
Assistant Editor



The Fires in in Desicive Actions Panel discusses topics during the 2012 Fires Seminar. (Photo by Rick Paape, Jr., U.S. Army)

Fires in Decisive Action' was the major topic at an open panel at the 2012 Fires Seminar at Fort Sill, Okla., May 15, 2012. MG Thomas S. Vandal, deputy chief of staff G-3/5/7, chaired the panel, which included COL Richard Bowyer, deputy chief of staff, G8, and COL Rob Lyons, DA G-3/5/7, DAMD-AMD. Earlier that morning, MG Heidi V. Brown addressed the seminar attendees on the same subject, priming them for this discussion.

Vandal, who previously served as the commandant of the Field Artillery (FA) School, is keenly aware of the tough issues the Fires community faces. He focused the discussion on two main topics: the contemporary operating environment and the future operating environment.

Contemporary operating environment. Vandal said, "The contemporary operating environment consists of an era of complex, protracted conflict, primarily in a counterinsurgency (COIN) environment. Certainly our Fires Soldiers have demonstrated their adaptive Fires in both offensive and defensive requirements. The primary asymmetric threat is improvised explosive devices (IED's), it's killing our Soldiers each and every day." During this time, a combat seasoned force, performing mostly non-standard, in lieu of missions, has used proven adaptable Fires in offensive and defensive missions.

Future operating environment. Vandal noted future threats will come from regional/paramilitary factions with local interests and ideologies, and we will most likely face a hybrid threat. "Future adversaries will be unable to directly challenge the United States in a head-to-head type of conflict." Instead, adversaries will adapt and use whatever means necessary to inflict damage on us, such as IED's, cyber and armed unmanned aerial systems. He added these future adversaries would exploit our vulnerabilities such as our global positioning systems (GPS), logistics, unmanned aerial systems, cyber warfare and electronic warfare (EW).

Wide area security. Vandal's assessment was that wide area security (WAS) will require improved Fires, noting joint capabilities, both with other U.S. services, as well as our allies, will be critical in future fights. He went on to say, "Operations in Iraq and Afghanistan revealed some challenges in Army Fires. Among these challenges included mission command integration. When it comes to decentralized operations, our junior leaders get it. The challenge for us as commanders is to ensure an understanding of the commander's intent and standardization." He went on to say that in the past, standardization (the five elements of predictable and accurate fire) and gunnery, had been our hallmark, the strength of the Field Artillery, and it will be in the future as well.

Vandal was adamant about beyond line of sight (LOS) communications with joint interagency, intergovernmental and multinational (JIIM) being essential to our success. "Our capabilities right now are limited, and for future success we have to improve."

Fire support for decentralized operations over extended distances. When looking unit structure, one or two guns spread out over several positions to cover a large area, it is important to ensure standardization is being met and the five elements of accurate predicted Fires will be met.

Vandal said "other challenges which need to be addressed are access to joint capabilities, authorization-command and control (C2) to employ joint Fires, and clearly the future development of precision munitions." He added, "Collateral damage, along with the enemy's use and exploitation of it (collateral damage), clearly is a vulnerability that's been assessed and is exploited by the adversary."

Vandal concluded his panel remarks by asking the seminar attendees to consider how the Fires force's artillery skills have atrophied over the last 10 years. Among the deficiencies he noted were massing precision Fires, integration of Fires and maneuver, and standardization of the five elements of accurate, predictable Fires. He also noted that command and control of Fires, which was handled at corps or division level, in some instances, is not getting done at the brigade and battalion level. To overcome these deficiencies, Vandal emphasized the use of current technology, i.e., locating ground targets, integrating joint Fires and effectively using precision munitions, and its importance to future Field Artillery capabilities. "We are adjusting Fires in theater instead of using precision capabilities that currently exist and that must change."

COL Rob Lyons, DA G-3/5/7, DAMD-AMD, covered topics more directly related to Air Defense Artillery (ADA). "The mission of the DAMD-AMD is to lead the integration of all missile defense issues within the Department of the Army. In 2010, the Army conducted a capabilities portfolio review (CPR) for the Air Defense Strategy. It was determined that the strategy ahead was ultimately unaffordable. As a result the Surface-Launched Advanced Medium Range Air-to-Air Missile (SLAMRAAM) and the Medium Extended Air Defense System (MEADS) programs were discontinued and the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) program was not procured." Lyons said the Army had to prioritize, and made ballistic missile defense its top priority, followed by C-RAM, counter-UAS and finally, cruise missile defense.

The 2012 CPR for Air Defense Strategy established four lines of effort (LOE) on how the Army would get to the desired end state.

1. Attain networked mission command or integrated air missile defense battle command system, also known as IBCS

2. Enable the defeat of the full range of air and missile threats.
3. Build partner capacity and maintain forward presence.
4. Transform the air and missile defense (AMD) force from leader development—the ability to be lethal and discriminate in Fires—to tailoring the formations to better enable a modular, networked architecture.

Lyons closed by reiterating the huge role AMD plays in access area denial and the air sea battle construct.

COL Richard Bowyer, Fires division chief in the G8, addressed the subject of budget cuts and their impact on both the ADA and FA. Of the \$49.3 billion the Army must cut from their budget, almost \$5 billion was cut from the ADA and FA budgets. Each branch cut \$2.4 billion in FY 12, causing delays in implementation or completion of many programs.

Bowyer then laid out the ADA and the FA organization and force structure changes for 2014 – 2018.

ADA Organization and Force Structure Changes:

ADA end state FY18:

- 4 x Army Air and Missile Defense Headquarters (3AC, 1 ARNG)
- 7 x ADA brigades (5 AC, 2 ARNG)
- 13 x Patriot battalions (AC)
- 2 x Patriot composite battalions (AC)
- 2 x Avenger battalions (ARNG)
- 2 x Indirect Fire Protection Capability (IFPC) / Avenger battalions (AC)
- 6 x THAAD batteries (AC)

Activations:

- 3 x THAAD batteries (FY14, FY15, FY16)

Conversions:

- 4 x Patriot composite battalions convert to pure Patriot battalions (FY14)
- 2 x Avenger battalions (AC) convert to IFPC/Avenger battalions (FY14, FY15)

Inactivations / do not activate:

- 3 x THAAD batteries (FY16, FY17, FY17) – do not activate.
- 2 x JLENS batteries (FY15, FY16) – do not activate
- 1 x JLENS battery (FY14) – inactivate.

FA Force Structure Changes:

ADA end state FY18:

- 10 x active component Fires brigade HQ (1 per division to standardize BCT Fires)
- 8 x Army National Guard Fires brigade HQ

Activations:

- 3 x active component Fires brigade HQ's (FY 14 and FY 15)
- 1 x Army National Guard Fires brigade HQ (FY14)

Conversions: Army BCT Re-Design

- IBCT Fires battalions convert to composite Fires battalions (2 x M119A2 and 1 x M777)
- HBCT Fires battalions convert to 3x6 organization

- BCT Fire support personnel assigned to the BCT Fires battalion (Force Design Update)

Inactivations / do not activate:

- 5 x EAB battalions with FSCs (FY13 – FY17)

Next Vandal opened the floor for questions. The first question pertained to the composition of the composite battalions. The Soldier asked if any consideration was being given to combine the M777 and the HIMARS in one battalion. Vandal replied that he was unaware of any discussion to combine M777 and HIMARS into one battalion.

The next comment was about precision Fires and collateral damage. The audience member stated that because of budget limitations units were only being allowed to fire one Excalibur round for training per year. He maintained that this was a problem for units when they deployed and prevented them from using Excalibur as effectively as they could. Vandal said that they are discussing allocating two training rounds per unit instead of only one. He also said battalion commanders in theater noted they have not been able to work with the system. He said this was true not only pertaining to Excalibur but with all precision guided munitions.

The next question to the panel was, “Do you foresee the IBCS integrated in some way with the Network Integration Evaluation (NIE) 14.1 or in the NIE construct to validate that sometime in the future?” COL Lyons answered, “That is something they are looking at with G6 in review of our strategy.” Bowyer also added that doing two NIE’s a year is being hotly debated. Bowyer said he does not know if we can afford to do two a year. He said if we were to go to two NIE’s a year it would be easier to get these capabilities included faster; however, if we stay at one a year, it will take longer.

The next question was focused on foreign military sales (FMS). “The focus of my question is about FMS. Given the frightening budget numbers that you showed up there along with the volume of the units that are going to be inactivated and the units that are not going to be activated at all, with your collective perspectives from the Pentagon, what role is FMS playing in all of this?” Bowyer responded, saying Patriot was a great example of FMS. He said there are 12 other countries who have Patriot in their force, as a result of that the United Arab Emirates (UAE) alone, paid for modern man stations that we are now going to bring into our force. He said FMS plays a huge role their ability to make changes. He also noted that India finally approved, or is on the path to approve, the purchase of M777 howitzers. He said that would keep the production line open for BAE, which could be a potential bill payer for us in the future. He said it is vital to the industrial base to keep production lines open and also vital to take advantage of that research, development, test and evaluation (RDT&E) effort from other services and feed back into our systems.

Audience member, Ken Peterson asked, “Can you describe or discuss some of the equipment investment challenges at Department of the Army, specifically high demand systems, such as THAAD, JLENS, ATCMS, and GMLRS, whose program budgets are being cut or reduced? How do we balance these cuts so we don’t appear out of step with what the joint community requires from the Army and the Fires force?” Bowyer responded to the question by saying the CO-COM commanders are their customers. However like everything else, it all comes down to what they can afford. He went on to say that there are Title 10 requirements that the services have, and then there is what the CO-COMS want, and there is always a give and take to try and meet those demands. COL Lyons reassured the audience that the CO-COM commanders are being heard by people in Washington.

Next asked was, “Can you predict when the AMD strategy paper would be completed and will it be published?” Lyons responded that it was in the final stages of three star staffing, it has already been through the G3 of the Army, and said he believes it will be published in the next 45 days.

The next question referred to the additional three Fires brigades. The audience member asked “The 10 brigades and the 10 divisions surely are intentional, what is your vision of marrying those up and maybe getting those brigade commanders behind the scene supporting these battalion commanders we got stuck out there in the brigades.” Vandal responded to the question. He said it was intentional to have one Fires brigade for every division. The intent is to give the Fires brigade authority over the battalions in the division.

The final question came from a lieutenant colonel from the National Training Center, Fort Irwin, Calif. He commented on whether we are utilizing the target acquisition capabilities we have. He said that thru 13 rotations, most of the high speed equipment is either left in a milvan container, they don’t the software for it or they don’t know how to use the equipment because they haven’t trained on it. He said a lot of units do not train on fire support at their home station because the BCT commanders will give that mission to the direct support artillery commanders and give them two or three weeks to train at NTC before they send them back to the task forces and that’s where training stops. My question to you is “when are we getting the fire supporters back into the Field Artillery?” Vandal responded to this question by saying “we are bringing the fire supporters back to the Field Artillery.” He said by 2014, fire supporters will be brought back to the artillery battalions, and is a deficiency that has been created because of a lack of standardization.

Fires in the United Kingdom:

An overview of the presentation by Brigadier Richard Haldenby

By Jennifer McFadden
Managing Editor

At the Fires Seminar in Lawton, Okla., on May 16, 2012, Brigadier Richard Haldenby, commander, Royal Artillery 1st (UK) Armoured Division, discussed shaping Fires for 2020. Haldenby gave an overview of the Royal Artillery's strategy, from campaigning to contingency: how the Royal Artillery should adapt following a lengthy campaign in Afghanistan, and adopting a posture of being ready to meet future defense challenges.

Haldenby began his briefing with a brief biographical sketch of his military experience, which began with light artillery and several tours with armored units. His current position has given him experience with air defense and tube artillery regiments.

He went on to acknowledge the uncertainty of the future. "The only certainty there is in terms of trying to second guess the future is that I will surely be wrong. But leaving aside the notoriously unreliability of horizon scanning, I have heard no suggestion that the world is becoming a safer place; our own studies into Global Strategic Trends back this up." Haldenby also stated many military leaders have had some difficulty understanding the economy as the number one threat to his country. "I don't think it's as big of a problem for you, but for us...it (the economy) defines everything." He added, "...it doesn't matter what you need for the future. The answer is 80 percent of what you had."

Even in a struggling economy, the UK continues to be willing and able to deploy military power in support of foreign policy objectives. With 12 years into the 21st century, they have done so many times, taking part in a wide range of missions, few of which were predictable. Being able to meet such challenges when they arise is of the utmost importance. Haldenby stated that the Royal Artillery will need to be sufficiently flexible to embark on a broad range of possible tasks well into the future.

"I should make it clear that I represent a user's point of view. In my current appointment, I do not write doctrine and neither do I define priorities for procurement - if you want the latter, Colonel John Musgrave, who is also speaking, is your man. Finally, some of my points are broader than just Fires - but they are the context in which we operate and therefore, relevant," Haldenby added.



Brigadier Richard Haldenby speaks to the audience at the 2012 Fires Seminar (Photo by Rick Paape, Jr., U.S. Army)

"Some of you will be aware that our Army is currently undergoing the initial stages of a restructuring that were detailed in our Defense and Security Review of late 2010. That work is still in progress, so I am afraid I will be unable to speculate on its results. But, I have my fingers crossed that the imperatives I will discuss will be coherent with the future shape of our Army, once it is known."

What have we learned: the power of networked systems. The availability of full motion video and other information systems, that allows detecting, tracking and engaging targets, is unprecedented. Whether the platform is unmanned aerial surveillance (UAS), a fast jet, a mast, or balloon, capabilities are now exploited to their full extent—with operators learning how to use them in a way that even those who built the networks probably did not envision.

Soldiers have developed great skills in cross-cueing such systems with enormous effect and using them to prime joint Fires or other effects. "We are now starting to consider how we can exploit the capability in other operations, but we are left with considerable challenges. How mobile is it? Can it be developed into a theater-entry capability? How can we reduce its often overt presence? Is the answer networked sensors, such as optics in our fighting vehicles, and if so, what bandwidth challenges does this present? Despite these challenges we have opened Pandora's Box and we like what we see. But it is not just exploiting our own networks; we have also learned to attack the enemies' [network]."

Targeting as a core skill. "What was previously reserved for strategic and operational levels (and often special forces) has now become commonplace at the tactical level - with battalion and brigade headquarters frequently undertaking such operations," Haldenby continued. "In fact, 80 percent of the enemy who have been removed from the battlefield in the UK area of operations in the last six months have been the result of such activity. This capability demands weapon systems to match, and we are becoming very competent at using precision weapons to conduct strikes from fast air attack helicopters or ground based precision weaponry, such as Guided MLRS. This has led some to question the more traditional role of artillery to suppress the enemy."

Comprehensive decision making. Haldenby reminisced on the simplicity of engaging targets for those 'brought up' in artillery schools of the 80s and 90s. "If it looked like the enemy - you engaged it. This is pretty much how we started off in Helmand in 2006, but we have matured a bit since then. We have learned that just because something or someone looked like the enemy, doesn't necessarily mean they were the enemy. This is true in Libya, where many times we have not engaged 'targets' because we were concerned that they might not actually be targets. A guy with an AK47 is not always the bad guy...it's a routine thing to do in lots of places in the world." Haldenby went on to discuss the process which the UK has developed and mirrors our targeting process for a forward observer, which they call the six-step process: rules of engagement (ROE); positive identification (PID); collateral damage estimation (CDE); bomb damage assessment (BDA), which includes consequence management; clearance; and engage."

Haldenby admitted that targeting could be a "drawn out process where there are, for example, significant ROE constraints." He went on to say this "needn't be" such a long process, and "that field commanders could use this (the six steps) in maneuver warfare and it would take less than a minute."

The centrality of integration to the mission. Explaining the "apparent role of our (UK) officers from Operation Iraqi Freedom 2 upwards is principally one of integration," Haldenby noted, "...by which I

mean using a combination of all assets at our disposal to find and bring kinetic and non-kinetic weapons to bear in support of our commander's intent." He added that "the actual firing and terminal guidance is usually a drill; integration requires judgment which is why it is usually, although not exclusively, an officer sport. It is also why Fires integrators need to be embedded next to commanders at every level if we are to get it right."

In a time of limited training funds, Haldenby praised simulation training as a particularly good way of training integration, especially with rare weapons and surveillance and target acquisition (STA) assets. Although there is a high cost normally associated with the initiation of simulated training, once accessible, costs are quickly recovered. Europe, unlike the U.S., has limited range space for systems such as the Guided Multiple Launch Rocket System (GMRLS). Simulation, and being able to conduct firing missions under controlled, highly stressful conditions, builds confidence in a Soldier's ability to perform in a combat environment. Haldenby shared a story of an engagement with the Taliban in which UK soldiers, who had completed the forward observer simulation training, were under attack. One of the soldiers stated that it was just like a day in their simulations center, which underscored the intensity of the training they received.

Our role in information operations. Although Artillery's primary mission is kinetic and non-kinetic effects - Haldenby stated that in the UK, as in the U.S. Army, artillerymen are often the "go to" people who coordinate all types of kinetic effects, including counter-intelligence or COIN operations. He added, "I would also observe that it is this type of information that is particularly decisive in COIN and the factor that will constrain us the most on such operations" in the future.

What have we forgotten? "Many of our leaders, both military and civilian, have turned a blind eye to the air threat," Haldenby stated, with the most obvious threat being UAVs. He observed that if we (NATO allies) are proliferating UAVs, we can most assuredly assume our enemy is doing the same. Funding to curtail the air threat has been basically non-existent until recently with the upcoming Olympic Games. It quickly became apparent to the British army that if they didn't deploy close air defense (CAD), that they would be the first country not to do so in the past 20 years. Haldenby stated that it has brought an "unprecedented interest in both air defense capability and the air threat" to the UK, which had been forgotten over the years, and "it is good news that we are going to get it (air defense) back in our training."

Maneuver and the role of Fires. Many of the UK artillerymen and military leaders seem to have forgotten the role of Fires and potential Fires in maneuver. "The 'precision versus suppression' argument is not a binary one. It is about the effect desired in time and space: in time - how enduring would I like the effect to



British soldiers from Light Regiment Royal Artillery, 29th Commando, 3rd Commando Brigade, attached to Bravo Company, 1st Battalion the Rifles, fire illumination at Patrolling Base Seca in Nahr-e Saraj district, Helmand province, Sept. 12. (Photo by Petty Officer 2nd Class Jonathan Chandler, U.S. Navy)

be? And if temporary, for how long? In space - to what extent do I need to constrain my effect, or do I want it to be extensive?" Haldenby explained the traditional artillery model is to provide Fire (or the potential for Fire) in order to allow combat forces to position themselves in a position of advantage against the enemy. This is maneuver. In a contemporary COIN environment, "the enemy rarely positions himself where one needs to use temporary, less constrained Fire to have an effect. Indeed the imperative to reduce civilian casualties may mean we choose not to fire, even when we have the ROE and PID to do so," stated Haldenby.

The bottom line is the military forces need to expect the unexpected. "We have become accustomed to two years to read-in and train for operations, not 48 hours," Haldenby commented. "They (soldiers) need to be able to react to uncertainty, be physically agile, have strategically deployable equipment, and be personally fit. Conceptually, the training should be comfortable with uncertainty inherent, and it should build resilience and flexibility." He also added that soldiers need to have unquestionable morality when making difficult decisions, which in return would allow both soldiers and the general public to better trust the decisions of commanders in the field. The issue of commanders being "hung in the press" when soldiers are killed, or when the outcome of a situation was not as originally planned, was addressed, and Haldenby was adamant about supporting the commanders' decisions.

What else is out there? Haldenby also upheld the need for a more joint environment, especially

for the Fires community. "We have come a long way in integrating close air support (CAS)," but there are areas in which the allies need to improve in "both air and maritime support." He also pointed out that we must be able to accept, or at least be more comfortable with an "80 percent solution...stop chasing the perfect solution...and learn to deal with less than 100 percent perfection in terms of readiness." Perfection comes at a much higher cost, in terms of manpower, funding and time. Haldenby added, "We can afford none of these in the current environment. The financial environment defines us and will continue to do so in the foreseeable future."

Haldenby summed up his presentation by restating the imperatives:

1. We want to keep:

- Our ability to cue complex integrated Fires using networked, layered surveillance and target acquisition (STA) assets
- The ability to support deliberate targeting and make comprehensive engagement decisions
- An understanding of effects, influence and information

2. We want to re-learn:

- Air-space is not always a benign environment
- 'Suppression' remains essential to maneuver

He concluded by saying our goal is "to be comfortable with taking risk and winning with what we have, rather than what we would like to have, and that we may not be as good at joint Fires as we think."

SNOW HALL



From left to right, CSM David Carr, Air Defense Artillery regimental command sergeant major, then COL(P) Daniel Karbler, commandant of the Air Defense Artillery School, CSM Sam Young, Field Artillery School command sergeant major, BG Brian McKiernan, commandant of the Field Artillery School, CSM Dwight Morrissey, Fires Center of Excellence and Fort Sill command sergeant major, and MG Mark McDonald, commanding general of the Fires Center of Excellence and Fort Sill, prepare to cut the ribbon at the reopening ceremony for Snow Hall at Fort Sill, Okla. (Photo by Rick Paape, Jr., U.S. Army)

Snow Hall Reopens and the Fires Brand Evolves

By Shirley Dismuke
Editor-in-Chief

One of several highlights of the 2012 Fires Seminar was the Snow Hall reopening ceremony. Snow Hall houses the Field Artillery and Air Defense Artillery School headquarters, both the staff offices and commandants' offices are in the building. Army personnel, active and retired, along with federal, state and local officials gathered May 16 for the ceremony, with guest speaker MG Mark McDonald, Fires Center of Excellence and Fort Sill's commanding general.

Snow Hall is the primary location for the Field Artillery and Air Defense Artillery Captains' Career Course, Basic Officer Leader Course, Pre-Command Course, the Joint Operational Fires and Effects Course, and other training and development courses for both branches.

McDonald cut the ribbon at the ceremony, assisted by BG Brian McKiernan, Field Artillery School commandant, and his command sergeant major, CSM Sam Young, COL (P) Daniel Karbler, ADA commandant, and his command sergeant major, CSM David Carr.

"For a lot of people Snow Hall holds a special spot in their hearts. It really is a special facility and provided the leadership and skills training that gave our country the ability to beat the Soviet Union in the Cold War and to take our Soldiers to the battlefields for the past 10 years and in Vietnam, Panama and the Gulf War," said McDonald.

The renovations and improvements included high-efficiency fluorescent lighting, upgraded data and telecommunications equipment, increased access to secure and non-secure networks, and upgrades to the heating, ventilation and air conditioning systems. Also, should the need arise, these renovations allow for the expansion of classrooms and other key infrastructure. Improvements were funded by the American Recovery and Reinvestment Act of 2009.



McDonald called the facility the “hallmark of Fort Sill” and was pleased to see Air Defense Artillery on one side and Field Artillery on the other. “This is indicative of how well we’ve integrated these two schools,” he said. “This is the best facility, and we will once again display excellence in training the finest Fires leaders we have ever seen.”

The original ‘School of Fire’ still stands at Fort Sill, only blocks away from Snow Hall on Old Post Quadrangle; however, the actual headquarters building for Field Artillery students training here has moved many times since 1911. During World War One, the War Department approved construction of a new wooden building, called Snow Hall, in what is now an open field where children play soccer and families walk their dogs. The building was consumed by fire in 1929 and all that remains is a stone

monument. In the interim, classes were held at Dan T. Moore Hall, which was demolished in the mid-80s due to severe structural issues. With a larger budget and in an effort to prevent another fire, construction of a new stone building was approved in the early 1930s. Known today as Fort Sill’s installation headquarters, McNair Hall served as the Field Artillery School for over 20 years.

Construction of the current Snow Hall building was completed in the fall of 1954, and for the first time, an air conditioned, state-of-the-art facility allowed year-round training at Fort Sill. Previously, training was impossible from June through September due to the intensive summer heat.

During the 2011 Fires Seminar, Fort Sill hosted a 100 year anniversary celebration for the School of Fire with GEN Raymond Odierno as the guest speaker. Although Snow Hall

is a mere 58 years old, it was entirely appropriate that the reopening be in concert with this year’s seminar. The ceremony was a unique opportunity to underscore the total integration of the Air Defense Artillery School’s move to Fort Sill and for the new commanding general to unveil an updated Fires logo.

MG David Halverson, the previous FCoE and Fort Sill commanding general, initiated the redesign in late 2011. He wanted a logo that “captured the Fires Soldiers’ physical and mental toughness, as well as Fires’ precision capabilities.” Also, he wanted the image to reflect the loyalty, adaptability, flexibility and motivation of the Fires force.

The design became a collaborative effort between Oklahoma University’s Gaylord School of Journalism and a project team from the FCoE Office of Strategic Communications. The final product was said to embody

Old Snow Hall, the ‘Hub of the American Artillery Wheel,’ in 1922. It was a large two story wood framed building with porches on both floors. This photograph was taken shortly before the building burned. (Photo Courtesy of the Fort Sill National Landmark Museum)





MG Mark McDonald, commanding general of the Fires Center of Excellence and Fort Sill, Okla., speaks to the audience in the Reimer Conference Center within Snow Hall during his "State of Fires" presentation at the 2012 Fires Seminar. (Photo by Rick Paape, Jr., U.S. Army)

the strength and endurance of FA and ADA Soldiers and pulls both branches into one family: the Fires force.

At the 2006 Fires Seminar, (then) LTG David Petraeus, MG David Ralston, and COL Heidi Brown unveiled a new Fires Center of Excellence logo, designed by Mr. Angel Quesada, Fort Bliss, Texas. Although the Center of Excellence did not fully 'stand up' until August 14, 2009, the new logo was very symbolic of the close of an era where Fort Sill, Okla., was known as the United States Army Field Artillery Center and Fort Sill (USAFACFS).

Change is truly the only 'constant' in this dynamic world. Six years after the original logo was unveiled, Petraeus is retired and serves as the director of the Central Intelligence Agency. Ralston is also retired and

Dan T. Moore Hall just after it was remodeled. Prior to its use as the FA School, it was an indoor horse riding arena. (Photo Courtesy of the Fort Sill National Landmark Museum)





McNair Hall, the current headquarters of Fort Sill, Okla., was the administration building when it was built in 1935. It also served as the interim building for the Field Artillery School before it was moved to Dan T. Moore Hall. (Photo Courtesy of the Fort Sill National Landmark Museum)

works with a local consulting firm in Lawton, Okla. Brown was promoted to major general in January 2012, and is the test director for the Missile Defense Agency. Two of these three officers also attended the unveiling of the 'updated' Fires logo.

When reviewing the proposals for the new design, McDonald stated, "It (the updated logo) incorporates many pieces of the old design to insure we do not forget our past, but build upon it, and remain true to our profession of arms." The logo integrates the Air Defense Artillery (ADA) and Field Artillery (FA) branches into one Fires force, using historic artillery red and gold to honor tradition, while the clean, crisp lines of the more modern design

reflect the technology of today's modern artillery.

Several logo options were presented to the Senior Fires Advisory Council in April, and the general consensus was that none of those presented were quite right; however, the group agreed that combining some elements from several of the designs might be more on target.

The project team took the council's ideas back to the drawing board, and the students created a new design, which McDonald unveiled at after the Snow Hall ceremony. However, as with most new design ideas, many versions are presented prior to the final selection.

On June 26, 2012, McDonald announced the final version of the

Fires logo. The new logo emphasizes the Fires community, not the Fires Center of Excellence and Fort Sill. It's all about the two branches of artillery and the Soldiers who are dedicated to the mission of Fires. It has evolved into a logo which truly represents the final phase of unifying the Fires community.

Editor's Note: Much of the content from this article was taken from an article by James Brabenec, a photojournalist with the Fort Sill weekly newspaper, The Cannoneer. The article entitled, Snow Hall Reopening Ceremony, appeared in the May 24, 2012 edition of the newspaper.



Soldiers and civilians gather in the halls after the reopening ceremony for Snow Hall at Fort Sill, Okla. The building renovation was more than a cosmetic enhancement and updated aging heating and air conditioning systems, as well as outdated data and telecommunications equipment for more than 3,000 Soldiers who train here annually. (Photo by Rick Paape, Jr., U.S. Army)

After numerous variations, iterations and designs, the logo below was selected to represent the Fires community.



LTG Richard Formica, commander of the Space & Missile Defense Command, points out significant Fires commandants and generals with MAJ Strom during the reopening ceremony for Snow Hall at Fort Sill, Okla. (Photo by Rick Paape, Jr., U.S. Army)





CONTINUE THE ... REDLEGACY

Providing Connection with the Past, a Link to the Future

By Dr. Boyd L. Dastrup

In concert with the attributes and essential characteristics tentatively outlined by the Army Profession Campaign, the U.S. Army Field Artillery School has spearheaded an initiative called the 'Redlegacy.' The 'Redlegacy' is an initiative designed to inspire and engage our Fires Soldiers and leaders from the lowest to the highest ranks to renew our commitment to what it means to be a professional of the Field Artillery branch.

"Here, at the Field Artillery school, we are preparing our Field Artillery officers and NCOs for the challenges they will face in the current and future fight, and by bringing awareness to our 'Redlegacy' we hope to provide a context of learning that is tied to our past," said COL Richard M. Cabrey, assistant commandant, U.S. Army Field Artillery School. "By providing this connection we hope to continuously define the values and traits that distinguish the occupation of a *Redleg* as a unique and proud profession. Because after all, being in the Field Artillery is more than just a job; it is a calling."

For more information on the 'Redlegacy,' log on to our interactive

'Redlegacy' database located on <http://sill-www.army.mil/USAFAS>.

Over the years, field artillerymen played a key role in the nation's success in wartime. Beginning with the American Revolution, Henry Knox, a self-taught artilleryman and later secretary of war, organized the Continental Army's artillery, helping to defeat the British army at Yorktown in 1781. Years later, President Harry S. Truman, GEN Maxwell D. Taylor, GEN John M. Shalikashvili, GEN Carl E. Vuono, GEN Tommy R. Franks, and GEN Raymond T. Odierno played prominent roles in shaping the U.S. Field Artillery, the Army, and the military. In no small part these *Redlegs* rose to the occasion in peacetime and

during war and demonstrated the FA officer's relevance in the U.S. military.

Following in Knox's footsteps, other *Redlegs* established themselves as role models and shaped the U.S. military, such as President Harry S. Truman, who enlisted in the Missouri National Guard in 1905, serving until 1911. When the U.S. entered World War I in 1917, he helped recruit Citizen Soldiers for the newly organized 2nd Missouri Field Artillery Regiment. The War Department reflagged the unit as the 129th Field Artillery, 60th Field Artillery Brigade, 35th Division upon being mobilized for the war. Soldiers with the 129th were then sent to Camp Doniphan, Fort Sill, Okla., for training

in the fall of 1917 before being shipped to France. During the intense fighting in the Meuse-Argonne Campaign of 1918, Truman's D Battery, 129th FA, destroyed two German batteries while emerging almost unharmed, even though the 35th Division, comprised of 27,000 men, suffered approximately 7,300 casualties during the four days of fighting. Such an experience gave Truman a clear understanding of the rigors of combat and the sacrifices required.

After the war, Truman retained his association with the Army, achieved the rank of colonel in the Officers' Reserve Corps and commanded a National Guard FA regiment long before he was elected to the U.S. Senate in 1934. After joining the Senate, he commanded another FA regiment in 1936, attended the reserve course at the Command and General Staff College at Fort Leavenworth, Kan., and organized lectures for reserve and guard officers in Kansas City, Mo. His first lecturer, MAJ Omar Bradley, was a familiar figure at the firing ranges of Fort Riley, Kan.

Truman's time in the U.S. Army and the Field Artillery gave him an appreciation of the horrors of war and invaluable leadership skill, paving the way for his success as

president from 1945 to 1953. As president, Truman ordered the invasion of Japan in 1945, but when the atomic bomb became militarily useable, he employed it at Hiroshima and Nagasaki to prevent a bloody invasion of Japan, saving thousands of lives, and ending the war. Later, he decisively responded to North Korean aggressions when the North Korean army invaded South Korea in June 1950 by shipping occupational troops in Japan to contain the attack. Subsequently, he convinced the United Nations to intervene in Korea and eventually dismissed GEN Douglas A. MacArthur in April 1951, for insubordination. MacArthur insisted on carrying the war to Manchuria and even China by attacking Chinese military installations north of the Yalu River, which was contrary to U.S. policy. Truman sought a negotiated peace. Although MacArthur's dismissal caused criticism by the American public, it reflected Truman's training as a Field Artillery officer years earlier during World War I, where he learned that officers had to lead and assume responsibility for the successes and failures of their units. In this case, Truman stood firmly and accepted the mantle of leadership



A postcard photo taken of, then, Capt. Harry S. Truman, the only *Redleg* to become president of the United States. (Photo courtesy of the Truman Library)

and responsibility for intervening in Korea and relieving MacArthur of command when he openly defied him.

The Cold War produced another extraordinary field artilleryman, GEN Maxwell D. Taylor. Although he started his Army career as an engineer, he transferred to the Field Artillery, serving in the 10th Field

Photo courtesy of Dr. Boyd L. Dastrup, U.S. Army





(Above upper and lower) GEN Maxwell Taylor served as the fifth Chairman of the Joint Chiefs of Staff, appointed by President John F. Kennedy. (Photos courtesy of the U.S. Army)

Artillery Regiment in 1926-1927. Taylor graduated from the Field Artillery School, Fort Sill, Okla., in 1933 and the Command and General Staff School, Fort Leavenworth, in 1935. During World War II, he served as the 82nd Airborne Division's artillery commander during the invasions of Sicily and Italy in 1942-1944 and also commanded the 101st Airborne Division during the Normandy Invasion and Western European campaigns of 1944-1945. After completing various other command positions, Taylor assumed the duties of the chief of staff of the Army from June 1955 to 1959.

As chief of staff, Taylor played a major role in shaping the Army. He guided the Army into the nuclear age by restructuring the Army's divisions for the tactical nuclear battlefield, criticized the doctrine of 'massive retaliation' that arose after World War II, stating the U.S. depended too much upon the nuclear bomb to



GEN Carl E. Vuono, chief of staff of the U.S. Army, visits with Soldiers during Desert Storm. (Photos courtesy of the U.S. Army)

enforce its will and that formed a critical part of President Dwight D. Eisenhower's 'New Look' Policy of 1953, to deter Communist aggression and minimized the employment of conventional weapons and ground forces. Relentlessly, he campaigned for 'flexible response' as an alternative to 'massive retaliation,' because it would permit the U.S. military to adapt and tailor its forces, meeting a threat and fighting across the spectrum of conflict without being forced to resort to nuclear weapons. Unable to convince the Eisenhower administration that the 'New Look' policy limited the country's options, to either a general war with nuclear weapons or a compromise, and to adopt a broader strategic policy, Taylor retired from the Army in 1959 and energetically crusaded to abolish the 'New Look' policy. This led to publishing "The Uncertain Trumpet" in 1964 where he advocated 'flexible response.' His untiring efforts eventually caused the U.S. to forsake the 'New Look' in the 1960s for 'Flexible Response.' This move placed the U.S. military, especially the Army, in a better position for combat operations in Southeast Asia during the 1960s.

Years later, another *Redleg*, GEN Carl E. Vuono, picked up the baton of the chief of staff of the Army. After graduating from the United States Military Academy in 1957, he was commissioned a second lieutenant in the artillery in 1958, served with the 82nd Artillery, 1st Cavalry Division in Korea in 1960-1961, and attended the Army Air Defense and Army Artillery Schools in 1961-1962. Beginning in 1966 and continuing into 1976, he served as an executive officer, battalion commander, and division artillery commander. These leadership opportunities, and others that he had as a *Redleg*, prepared him to be the commanding general, United States Army Training and Doctrine Command (TRADOC), in 1986-1987, and chief of staff of the United States Army in 1987-1991.

As in previous assignments, Vuono excelled as the commanding general of TRADOC and as chief of staff of the Army. As the commander of TRADOC, he developed the concept of advanced collective training facilities that led to opening the Joint Readiness Training Center at Fort Chaffee, Ark., and the Combat Maneuver Training Center at Hohenfels, Germany. He also initiated the Battle Command Training Program

at Fort Leavenworth. Another lasting contribution focused on developing small group instruction that fostered critical thinking skills in officers and the reinvigorating the noncommissioned officer education system.

As chief of staff of the Army, Vuono provided timeless insights. Addressing *Redleg* officers' and noncommissioned officers' roles in December 1987, he offered pointed guidance. He noted they had to be technically and tactically competent, they had to be truly selfless in their dedication to Soldiers and their units, and they had to have the highest ethical standards, as noted in an article in November/December 1987's *Field Artillery Bulletin* entitled, "The Chief Speaks to Field Artillery."

Vuono added, "The Field Artillery has a distinguished tradition -- one in which all artillerymen can take great pride. Field artillerymen today have an even greater challenge. They must meet it by understanding the doctrine -- understanding how to fight and having engrained in them that preparing for war is their primary mission."

In a white paper of January 1990, entitled "A Strategic Force for the 1990s and Beyond," Vuono furnished additional counsel. He stated, "The nature of our vital interests and the growing complexity of the international environment will demand that the Army of the future be versatile, deployable, and lethal -- qualities essential to the defense of our nation in the years ahead."

Indirectly noting Taylor's contribution, Vuono pointed out, "The post-World War II Western strategy of containment and flexible response, in particular, has achieved unprecedented success. We have enjoyed four decades of peace between the superpowers." As this quote suggested, he possessed a solid vision of the future and provided sound, solid leadership during a period of great challenge and changes at the end of the Cold War. He also guided Army operations in Panama to restore legal government there and

operations in Southwest Asia to free Kuwait from Iraqi occupation.

A peer of Vuono, GEN John M. Shalikashvili also gained valuable experience during the Cold War. After graduating from Bradley University, Peoria, Ill., in 1958, with a bachelor's degree in mechanical engineering, he became an American citizen. For him, this represented a significant step, because he had been stateless as a child of parents who had been refugees from Russia following the fall of the tsar of Russia in 1917. In 1958, he received his draft notice, entered the Army as a private, and attended officer candidate school, where he was commissioned a second lieutenant in 1959. He served in various Field Artillery and Air Defense Artillery positions as a platoon leader, forward observer, and a battery company commander and served in Vietnam in the Quang Tri Province with an advisory team under the Military Assistance Command, Vietnam, in 1968-1969. Later in 1975, Shalikashvili commanded a Field Artillery battalion and a division. He capped his time in the military as the chairman of the joint chiefs of staff in 1993-1997, to become the first naturalized American, the first draftee, and the first Soldier commissioned through

officer candidate school to do so and established the Joint Vision 2010 program to carry the Army into the 21st century.

Shalikashvili guided the U.S. military through the chaos of the immediate post-Cold War and the uncertainty that permeated Europe and the United States at the time. In no small manner, his strategic thinking and diplomatic skills played a key role in securing any 'loose nukes' that could have led to a nuclear catastrophe and facilitated former Soviet satellites and republics to build ties with the West and to join the North Atlantic Treaty Organization. Some political scientists and historians suggested that such inclusion prevented Russia after the fall of the Soviet Union from emerging to foment a new Cold War. Despite the fervent calls for a 'peace dividend' when the Cold War ended that led to the dramatic reduction in the number of U.S. military personnel during the 1990s, and had the potential of creating a hollow military similar to the one after World War II, Shalikashvili and others managed the tremendous downsizing, and retained military readiness.

Some, such as Andrew D. Marble, indicated Operation Provide Comfort was Shalikashvili's greatest moment.

GEN John M. Shalikashvili, then-chairman of the Joint Chiefs of Staff, is surrounded by Soldiers operating on Sword Base, Mogadishu, Somalia, Dec. 19, 1993, during his tour of United Nations Operations in Somalia II operations. (Photo courtesy of the U.S. Army)



At the end of the first Gulf War in 1991, Iraqi forces chased more than 500,000 Kurds into the inhospitable mountains along the Turkish-Iraqi border. Lacking food, water, and shelter, Kurdish men, women, and children were dying at a rate of 1,000 per day. To avert a humanitarian crisis of calamitous proportions, Shalikashvili led the operation to alleviate the suffering. This operation involved 35,000 Soldiers from 13 countries, as well as volunteers from more than 50 other countries. In 90 days, Operation Provide Comfort

returned all Kurds back to safe havens in Iraq. GEN Colin Powell, chairman of the joint chiefs at the time, said Shalikashvili had worked "a miracle."

Like Shalikashvili, another field artilleryman, GEN Tommy Franks, rose from the enlisted ranks to critical leadership positions that spanned the Cold War and post-Cold War. He enlisted in the United States Army in 1965, and attended basic training at Fort Leonard Wood, Mo., and received advanced individual

training as a cryptologist at Fort Devens, Mass.

Standing out among his peers in marksmanship and leadership qualities, PFC Franks attended the Artillery and Missile Officer Candidate School, Fort Sill, Okla., and was commissioned a second lieutenant in the artillery in 1967. As a junior officer, he served as a battery assistant executive officer at Fort Sill, as a forward observer, an aerial observer, and an assistant S-3 in the 2nd Battalion, 4th Field Artillery, 9th Infantry Division, Republic of Vietnam, and as a fire direction officer and a fire support officer with the 5th Battalion (Mechanized), 60th Infantry in Vietnam.

Following participation in the Army's Boot Strap Degree Completion Program at the University of Texas at Arlington, where he earned a bachelor's degree in 1971, Frank's career continued to climb. He commanded the 1st Squadron Howitzer Battery and, served as squadron S-3 in the 2nd Armored Cavalry Regiment in the Federal Republic of West Germany in 1973, and commanded the 84th Armored Engineer Company. After graduating from the Armed Forces Staff College, Franks completed an assignment at the Pentagon in 1976 as an Army inspector general in the investigations division.

In 1977, he was assigned to the office of the chief of staff, Army where he served on the Congressional Activities Team and as an executive assistant. In 1981, Franks returned to the Federal Republic of West Germany to command the 2nd Battalion, 78th Field Artillery for three years. He came back to the United States in 1984 to attend the Army War College, Carlisle, Pa., and also completed graduate studies at the Shippensburg University of Pennsylvania. His next assignment took him to Fort Hood, Texas, as III Corps deputy assistant G-3 until 1987 when he assumed command of Division Artillery, 1st Cavalry Division. He also served as chief of staff, 1st Cavalry Division.

GEN Tommy Franks, U.S. Central Command, commander, visits with the troops of 1st Brigade, (Bastogne), 101st Airborne Division, (Air Assault) while observing a collected weapons cache at an Iraqi military training compound, March 14, 2007. (Photo by PFC Joshua Hutcheson, U.S. Army)





Then LTG Ray Odierno, commander of Multi-National Corps - Iraq, center, is flanked by LTC Kenneth Adgie, commander of the 1st Battalion, 30th Infantry Regiment, 2nd Brigade Combat Team (BCT), 3rd Infantry Division (ID), left, and COL Terry Ferrell, commander of the 2nd BCT, 3rd ID, at Patrol Base Hawkes in Arab Jabour, Iraq, Oct. 21, 2007. Odierno is visiting the base to meet with unit leaders as well as officials from Arab Jabour's concerned citizens group. (Photo by SSG Curt Cashour, U.S. Army.)

His initial general officer assignment was assistant division commander (maneuver), 1st Cavalry Division during Operation Desert Shield and Operation Desert Storm in 1990-1991. Following various assignments in TRADOC, including one as the assistant commandant of the Field Artillery School at Fort Sill, Franks commanded the 2nd Infantry Division, Korea, from 1995 to 1997 and the Third (U.S.) Army/Army Forces Central Command in Atlanta, Ga., in 1997-2000. Upon being promoted to general, he was made commander in chief, United States Central Command. In this position, Franks led the 2001 invasion of Afghanistan and the overthrow of the Taliban in response to the 9/11 terrorist attacks on the World Trade

Towers in New York City and the Pentagon. He is also credited with directing the 2003 invasion of Iraq and the overthrow of Saddam Hussein.

Perhaps, Franks' most notable long-term contribution revolved around the American response to the terrorist attacks as commander of United States Central Command, that oversaw American efforts in 25 countries in the Near East and North Africa. As he reflected about the attacks, he recalled that Secretary of Defense Donald Rumsfeld directed him and his staff on Sept. 12, 2001, to prepare credible military operations in Afghanistan. On Sept. 19, 2001, Franks presented the options. The country could apply force or threaten to apply force. It could use cruise missiles or introduce

a large number of conventional combat forces. The Soviets tried this and failed.

Another approach was unconventional. It sought to leverage operational forces, air-to-ground forces, and air support. Rumsfeld and President George W. Bush chose this latter option. By the end of September 2001, the United States had a coalition in place to support the effort against the Taliban in Afghanistan that had backed Al Qaeda's terrorist attacks of September 2001. The war began with the bombing. Subsequently, the coalition inserted special forces to work with the warlords of Afghan allies. The ground fighting started in the north with the northern alliance and eventually defeated the Taliban and Al Qaeda in Afghanistan.



GEN(Ret.) Jack Keane talks to LTC Jack Marr, from Minneapolis, commander of 1st Battalion, 15th Infantry Regiment, attached to 3rd Heavy Brigade Combat Team, 3rd Infantry Division, during a patrol through Salman Pak, Iraq, March 20. CSM Mark Moore, from Waverly Hall, Ga., 1-15th Inf. Regt., provides security. (Photo by SGT Natalie Loucks, U.S. Army)

Equally important, he received credit for adapting conventional forces to an unconventional role by coordinating with Special Forces and Central Intelligence Agency's paramilitaries. As Central Command's chief, Franks subsequently oversaw the massive military buildup in preparation for the 2003 Iraq War that captured Baghdad and removed Saddam Hussein from power after only a few weeks of fighting. Franks garnered a great deal of praise for the successful U.S. strategy that kept U.S. casualties to a minimum.

Like Franks, the Cold War and the post-Cold War world shaped another field artilleryman, GEN Raymond T. Odierno. After graduating from the United States Military Academy in June 1976, the general's initial tours took him to the U.S. Army, Europe and U.S. Seventh Army, the Federal Republic of Germany, where he served as a platoon leader and survey officer in the 1st Battalion, 41st Field Artillery, 56th Field Artillery Brigade (Pershing). He later served as aide-de-

camp to the brigade's commanding general. After completing the Artillery Officer Advanced Course, Odierno commanded Service Battery and A Battery in XVIII Airborne Corps Artillery at Fort Bragg, N.C. He subsequently served as S-3 for the 1st Battalion, 73rd Field Artillery. During Operation Desert Storm of 1991, he was the executive officer for the 2nd Battalion, 3rd Field Artillery and held the same position for the 3rd Armored Division's division artillery.

He later commanded the 2nd Battalion, 8th Field Artillery, 7th Infantry Division and Division Artillery, 1st Cavalry Division. Afterwards, he commanded the 4th Infantry Division from October 2001 to June 2004, leading it through the first year of Operation Iraqi Freedom. Soldiers from his division captured Saddam Hussein in December 2003. Odierno later commanded III Corps from May 2006 to May 2008. From December 2006 to February 2008, he commanded the Multi-National Corps-Iraq and later United States

Forces-Iraq from September 2008 to September 2010. On Sept. 7, 2011, he assumed duties at the chief of staff of the Army.

Although he served well in all of his assignments, his time as commander of III Corps stood out. Sent back to Iraq in 2006 as second in command of U.S. forces under orders to begin the withdrawal of U.S. troops and to shift fighting responsibilities to the Iraqis, Odierno found a situation he recalled as "fairly desperate," according to an article in the Washington Post by Thomas E. Ricks, entitled, "The Dissenter Who Changed the War."

In the fall of 2006 he advocated a change of direction, and he became the lone senior officer in the active duty military to advocate a buildup of American troops in Iraq; a strategy rejected by the chain of command above him, including GEN George W. Casey, Jr., then the top commander in Iraq and Odierno's immediate superior. With support from GEN(Ret.) Jack Keane, an influential former Army vice chief of staff and his most important ally in Washington, Odierno pushed for change in direction in Iraq by arguing for a surge in the number of U.S. military forces in Iraq, conducted his own strategic review, and bypassed his superiors to talk through Keane to White House staff members and key figures in the military.

In pressing for the increase in U.S. forces in Iraq, Odierno went up against the collective powers at the top of the military establishment. In November 2006, GEN John P. Abizaid, then head of Central Command, told a Senate hearing he and every general he had asked opposed sending more U.S. forces to Iraq. As late as December 2006, U.S. Marine Corps Gen. Peter Pace, then chairman of the Joint Chiefs of Staff, privately told his colleagues he did not see how 160,000 U.S. troops in Iraq could do anything that 140,000 were not doing.

In 2007, President George W. Bush, however, agreed with Odierno and announced he was ordering a surge of U.S. forces, but it represented only a part of a major change in the mission



CPT David Diaz, commander of Charlie Company, 1st Battalion, 18th Infantry Regiment, 2nd Brigade, 1st Infantry Division, briefs, then LTG Ray Odierno, commander of Multi-National Corps-Iraq, on his unit's recent activity at Combat Outpost Carter on Camp Stryker, Iraq. Company C operates in Baghdad's West Rashid Security District. (Photo by SSG Curt Cashour, U.S. Army)

of U.S. troops. Through 2007, U.S. commanders relied upon traditional methods of warfare. Odierno, who had employed them vigorously when he commanded the 4th Infantry Division, abandoned them in favor of counterinsurgency warfare. Along with GEN David H. Petraeus, who replaced GEN Casey as the top U.S. commander in Iraq in 2007, Odierno changed the direction of the war. Petraeus might have been the public face for counterinsurgency warfare that eventually improved conditions in Iraq, but Odierno provided the real impetus for the surge.

To be sure, the Army's system of promotion and assignments groomed Odierno and other field artillerymen for high-ranking leadership appointments. Assignments early in their Field Artillery careers provided them with opportunities to develop their initial command skills in company-grade assignments. After proving their abilities at this level, they later assumed duties as battalion commanders and in some cases as division artillery commanders.

Such positions prepared them for commanding higher level organizations, instilled confidence in them, and laid the foundation for assuming even greater duties.

Their training as FA officers also played a key role in their rise to positions of greater responsibility. In the officer basic and advanced courses, they not only acquired core branch skills, but also developed teamwork skills. At the same time, they learned the doctrine of the other combat arms so that they could provide effective and responsive fire support to their maneuver brethren and understand their approach to battle and served as advisors to maneuver commanders. Such knowledge and experience put Odierno and the others in advantageous positions for high-level assignments. Operating in conjunction with the promotion system, their experience as Field Artillery officers, and their innate leadership talents propelled them to high levels of command and leadership. Their branch provided them with the background and

experience to excel in high-level command and leadership positions.

Dr. Boyd L. Dastrup is the Field Artillery Branch historian for the U.S. Army Field Artillery School at Fort Sill, Okla. He received a Ph.D. in U.S. Military and Diplomatic History from Kansas State University in 1980. He has written *The U.S. Army Command and General Staff College: A Centennial History*; *Crusade in Nuremberg: Military Occupation, 1945-1949*; *King of Battle: A Branch History of the U.S. Army's Field Artillery*; *Modernizing the King of Battle: 1973-1991*; *The Field Artillery: History and Sourcebook*; *Operation Desert Storm and Beyond: Modernizing the Field Artillery in the 1990s*, and *Cedat Fortunis Peritis: A History of the Field Artillery School*. He has also written articles in *A Guide to the Sources of United States Military History*, *The Oxford Companion to American Military History*, *The U.S. Army and World War II*, *Professional Military Education in the United States: A Historical Dictionary*, *King of Battle: Artillery in World War I* (forthcoming), and numerous journals and appeared on the History Channel in *Dangerous Missions: Forward Observation* (2001) and *Extreme Marksman* (2008) and the Military History Channel on *Artillery Strikes* (2005) and *Weaponology: Artillery* (2006).



Marines stand at attention during the U.S. Marine Corps Artillery Detachment commemoration ceremony. (Photo by Rick Paape, Jr., U.S. Army)

Fort Sill's Marine Artillery Detachment Celebrates its History on Post

By Mark Norris

A celebration of Fort Sill, Oklahoma's U.S. Marine Corps (USMC) Artillery Detachment took place at the detachment's headquarters on May 16 as the Fires Center of Excellence recognized its 63 years of joint artillery training. Accenting the ceremony were the 77th Army Band and the Fort Sill Salute Battery. Keynote speaker was senior Marine artilleryman and Joint Force Development Director, Lt. Gen. George J. Flynn.

Marines began artillery training at Fort Sill in 1925. The number of Marine trainees and instructors eventually grew to the point where the billet of the senior USMC representative was formally established on post in 1949. The first representative was COL John

S. Twitchell, who served from 1949-1952. In 1978, all Marine Corps Artillery training was centralized at Fort Sill. In 1989, the detachment was officially named the United States Marine Corps Artillery Detachment.

Following Marine Detachment Commander COL Douglas Thomas' welcoming ceremony remarks, Fort Sill Field Artillery School Commandant, BG Brian McKiernan, addressed the long-standing joint relationship the Army and Marines have enjoyed on Fort Sill. "Due to the presence of our Marine artillerymen, Fort Sill has been joint, long before 'jointness' was in vogue," said McKiernan. "Our joint Field Artillery training has enabled Marine and Army artillerymen to continue to reign as the "King of Battle" as we

face the demands placed on today's challenging operating environment."

McKiernan concluded his address with a joint-partnership quote from Marine CENTCOM Commander, GEN James Mattis: "In this age I don't care how tactically or operationally brilliant you are. If you cannot create harmony, even vicious harmony on the battlefield based upon trust across service lines, across coalition and national lines, and across civilian and military lines, you need to go home, because your leadership is obsolete."

-CENTCOM Commander, GEN James Mattis

"Developing artillerymen who can orchestrate this type of operational harmony, often vicious, as referred to by GEN Mattis," said McKiernan, "is a significant part of our core

competency. It's part of our DNA, and thanks to the Marines we've done it here for over 60 years."

Immediately preceding Flynn's address, a 15-gun salute was fired in his honor, and two PAC 75 howitzers were dedicated in honor of Marine artillerymen past and present for their service and sacrifice.

A humorous reminiscence of Flynn's 'ancient' Field Artillery training taken in 1976 initiated his ceremony address. "I'm old enough to understand manual gunnery. I know what a range deflection protractor is...I know what it looks like...I know how to use it. I know what a graphical firing table is. I know what a tabular firing table is. I know what a graphical sight table is. And I know what FADEC is...it had a vacuum tube in it, I believe." Flynn

completed his talk by mentioning his work with 20th Century cannons and sights, and comically regaled the audience with live-fire exercises he participated in with these weapons. In conclusion, he solemnly honored the joint tradition Fort Sill's Army and Marine artillerymen have enjoyed since 1925:

"Legions of artillery and survey officers have learned their trade here. Here we have trained our operation chiefs, fire direction control and meteorological men, and our cannoneers – all to a common standard. We have shared battlefields together. There is no doubt that the future of the artillery is bright, provided we continue to adapt to the demands of the new environment. We're going to spread out the future on the battlefield. We're going to

have new organizations. We're going to need affordable precision. And we'll need to be available 24/7 to achieve our objectives. We are the ones, I think, who are best equipped to integrate all the means and methods of Fires that we can apply to the battlefield in the future. I challenge you today to use the spirit of innovation and adaptability to allow us to adjust to the new reality. There is no doubt, this partnership tomorrow will be key to the King's future."

More than 1,500 Marines train at Fort Sill annually.

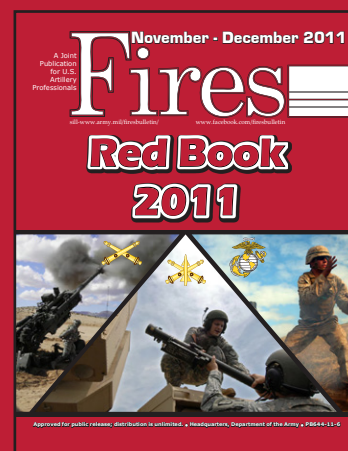
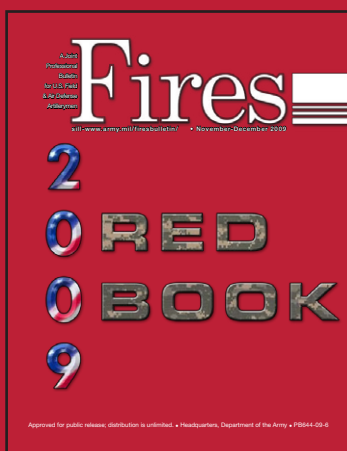
Mark Norris is the Congressional Liaison Officer, Office of Strategic Communications, Fires Center of Excellence, Fort Sill, Okla.

Marines watch as Lt. Gen. George Flynn, Director for Joint Force Development, The Joint Staff J-7, speaks about the U.S. Marine Detachment at Fort Sill, Okla. (Photo by Rick Paape, Jr., U.S. Army)



Let Your Unit's Achievements be Heard

The Fires Bulletin is now Accepting Submissions for the 2012 Red Book! Submission Deadline Aug. 13, 2012!



Submit your unit's 2012 Red Book entry by email: fires.bulletin@us.army.mil
Subject: "2012 Red Book Submission: UNIT NAME"

The Red Book is used to inform the Fires community of what our Fires Soldier have accomplished over the past year and what their future missions are. The annual Red Book highlights active duty, National Guard and Reserve U.S. Army Air Defense and Field Artillery, and U.S. Marine Corp Field Artillery brigade-level (and lower) units. The unit submissions capture significant unit-specific events, including deployments, training events, etc., over the past year, from 2011 to 2012.

The deadline for submissions is Aug. 13, 2012. Submissions received after the deadline are less likely to be published due to budget constraints and contract limitations.

Submissions are published on a 'first-come, first-served' basis and are limited to 250 words per organization. Space in the Fires Bulletin is limited by contract, and once filled, we cannot add pages. Submissions received after maximum page count has been reach will not be published.

Unit article submissions should be submitted in DOC file format. Higher-level organizations should facilitate their subordinate units'

submissions when applicable. Please provide in your submission your unit's home duty station(s), nicknames, and websites/social media URLs to be included in the article.

You are encouraged to submit photos along with your unit's Red Book submission. Please attach the photos as separate files, as JPG, PNG or GIF formats are acceptable. Photos embedded within a text document, specifically DOC format, are compressed and not high-resolution and will not be printed within the Fires Bulletin. Photo resolution should be no less than 900 by 900 pixels. Please include information to write a caption for the photo, i.e. who, what, when, where, why and include the photographer's name.

Additional information and guidance for submissions can be found on the Fires Bulletin website, <http://sill-www.army.mil/firesbulletin>. If you have any questions please contact the Fires Bulletin staff by email, fires.bulletin@us.army.mil, or by phone, (580) 442-5121.



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Cpl. John Moore IV, Marine Reserve radio operator with K Battery, 2nd Battalion, 14th Marine Regiment, relays a fire mission to two HIMARS platoons during a training exercise on Fort Sill, Okla. (Photo by Caitlin Kenney, U.S. Army)