

**Happy
Holidays**

<http://www.facebook.com/fieldartilleryredleglive>

REDLEG

Update

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

The United States Army Field Artillery Branch's Newsletter

12-13:December 2013



2013 Year in Review

From the Commandant's desk

In the past year there have been a number of exciting developments within the Field Artillery across all domains: Doctrine, Organization, Training, Materiel, Leader Development, Personnel and Facilities (DOTMLPF).

In 2013 collectively these developments have shaped the "Modernization of Field Artillery Fires" which will continue to be our focus into 2014 and beyond.

In previous years, the "Modernization of Field Artillery Fires" has meant primarily centering on materiel and equipment, from our Target Acquisition Radars to the future Joint Effects Targeting System (JETS), from our Paladin Integrated Management (PIM) program, Excalibur and the XM1156 Precision Guidance Kit (PGK) – we are on time and on target when delivering the required operational capabilities for the Army of 2020 and beyond.

However, building a comprehensive modernization plan for equipment and materiel is only part of the equation. Concurrently, we have also been focusing on the needs of our people. As

our equipment and materiel have become more technology driven, for example, so has our leadership development and training. We have also updated what our organizational formations should look like and have revamped doctrine and TTPs (tactics, techniques, and procedures) to support modernization efforts.

An example of revamping key doctrine and TTPs in support of modernization is FCOE's validation of the "Five Requirements for Accurate Predicted Fire." With advances in weapon systems, munitions, and technical procedures, FCOE explored the possibility that the Five Requirements may require updating. It was found that for ballistic, level of effort munitions, the Five Requirements were still very much valid.

However, with the introduction of precision and near precision munitions into the inventory and advances in observer target location equipment, new considerations and goals are needed within the Five Requirements to hold United States artillerymen to joint standards and ensure proper employment of the

entire spectrum of munitions.

An in depth article on the new "Five Requirements for Accurate Fire" will be published in a future Redleg Update. I look forward to sharing with the field this pivotal change.

All these endeavors are significant, because the best equipment combined with the best people make up the King of Battle – dedicated professionals providing fires whenever and wherever as needed.

Joint Fire Observers

Joint Fire Observers are critical to the fight. JFOs bring unique skill sets that only the field artillery provides to the maneuver commander. Once certified, JFOs are proficient at surface-to-surface call for fires, naval surface call for fires, AC-130 call for fires, and close combat aviation procedures. Time and time again, JFOs have been proven to be significant force-multipliers which enhance the maneuver commander's access to



Continued on Page 3

Warfighting Forums

The Field Artillery Warfighting Forums offer an opportunity for communication, collaboration, and coordination of the Army's Fires Brigades, SBCT, ABCT and IBCT Fires Battalions, Div/Corps Chiefs of Fires and the CTCs.

SBCT WfF - 13JAN14 11:00-12:30 (SIPR)
 IBCT WfF - 14JAN14 10:00-11:30 (SIPR)
 SBCT WfF - (FA Breakout session) - 16JAN14 11:00 - 13:00 (NIPR)
 ABCT WfF - JAN/FEB 13:30-15:00 (SIPR)
 FiB WfF - TBD 16:00-17:30 (NIPR)
 IBCT WfF - (FA Breakout session) - TBD 10:00 - 11:30 (NIPR)
 ABCT WfF - (FA Breakout session) TBD 10:00 - 11:30 (NIPR)
 DIV/CORPS Fires WfF - TBD 10:00 - 11:30 (NIPR)
 CTC Forum - TBD 11:00-12:30 (NIPR)

Purpose: Founded in 2011, the *Redleg Update* provides past and present Field Artillery leaders with a monthly update of informational highlights to assist in their individual, collective and professional training efforts, as well as report on activities occurring throughout the Field Artillery community.

Official Distribution: The *Redleg Update* is distributed by the Commandant of the U.S. Army Field Artillery to key members of the Field Artillery chain of command across the U.S. Army. Past and current editions are also archived on FKN @

<https://www.us.army.mil/suite/files/34549741>

Chris F. Bentley

Chris F. Bentley
 Brigadier General, U.S. Army
 Commandant,
 United States Army Field Artillery School

RFIs, Notes, and Notices: To submit a Request for Information (RFI), please email the POC listed below. The FA Commandant's Office will acknowledge receipt of RFIs within 24 hours and will attempt to provide an answer within 72 hours.

Points of Contact: We appreciate those who have provided announcements, notices, articles and lessons learned.

Additionally, if you have a story of interest or wish to initiate a discussion on any topic or issue facing the Field Artillery community, contact Mr. John Folland, (580) 558-0831, or the editor of the *Redleg Update*, Ms. Sharon McBride, Field Artillery STRATCOM officer, (580) 558-0836.

Hot Link Legend:

Green = Open Source on WWW

Red = CAC Card enabled
 on AKO/FKN

SHARE THE
 "REDLEG UPDATE"

The "*Redleg Update*" is archived on FKN.

Log on with
 AKO credentials at

<https://www.us.army.mil/suite/files/34549741>

to read or print past editions today.



Year in Review *...continued from Page 1*

a variety of fires. JFOs, in conjunction with Air Force Joint Terminal Attack Controllers (JTACs), are trained to assist maneuver commanders with the timely planning, synchronization, and responsive execution of close air support. Timely and effective CAS can mean the difference between losing lives, equipment and objectives in the fight. JFOs can quickly and accurately provide the information necessary for JTACs to prosecute targets and avoid fratricide and unnecessary collateral damage.

JFO training will become part of our core BOLC instruction. It is non-negotiable. We have laid the groundwork to add JFO academics to the Basic Officers Leader Course (BOLC) here at Fort Sill by third quarter fiscal year 2014. Currently, only BOLC graduates with follow on assignments to brigade combat teams have the opportunity to complete JFO certification as an assignment oriented training course following graduation.

However, in order to best address the needs of the force, every Field Artillery lieutenant must be trained as a JFO.

We are also migrating to a small group level of instruction in our BOLC. This initiative is critical to meeting demands for leader development. Our current BOLC classes are now getting two hours of small group a week. Great things happen when our Field Artillery Soldiers are taught using the Army learning model of small group instruction. Studies have shown that discussion guided by small group leaders takes understanding and relevance to higher levels of learning for all our Soldiers.

Targeting Warrant Officers (131A)

In an environment where collateral damage has operational or strategic implications, fires delivered with precision accuracy is a necessity. This year our 131As have enhanced their unique skill set to support the Commander's ability to meet this requirement anytime and anywhere in the world.

On October 2013, Target Mensuration Only and Collateral Damage Estimate (TMO, CDE) certification was incorporated into WOBC and WOAC instruction as a requirement for graduation. The need for this requirement allows our 131As to support the momentum of our initiative to Modernize Field Artillery fires.

As precision capabilities have grown, so has the requirement for FA Targeting Officers with the skill set necessary to employ munitions precisely. Accurate target location remains the first and most important of the five requirements for accurate fire. The enhanced skill

set our 131As need to effectively employ munitions begins with precision fires certification. That certification encompasses institutional training for Weaponeering, TMO and CDE.

Leader Development

2013 was also a great year for leader development. Recently, the U.S. Army released its Army Leadership Development Strategy 2013. We followed suite with re-defining our Field Artillery Leadership Development Strategy. Our Field Artillery men and women deserve the best possible leader development in order to prepare them to effectively lead Soldiers.

Our roadmap for success is based on three crucial leader development components: training, education and experience. It is also based on opportunities in the institutional, operational and self-development domains that should be taken advantage of when a leader becomes a lieutenant and ultimately progresses to become a battalion commander and beyond.

The institutional domain includes initial military training, professional military education, advanced civil schooling, training with industry, and fellowships to supplement leader education. Civilian education is an important way a leader gains breadth and the wisdom to know and apply the proper outcomes as a leader, but it is within the operational domain where most leaders undergo the majority of their development. It encompasses all training and education in deployable units. It is where junior leaders achieve technical competence, mid-grade leaders further develop their ability to lead units and organizations, and senior leaders contribute to the development and implementation of national and security objectives. All training, education, and self-development activities conducted during planning, preparing, executing, and assessing unified land operations are essential parts of developing leaders in the operational domain.

The self-development domain includes planned and goal-oriented learning that reinforces and expands the depth and breadth of an individual's knowledge base and self-awareness. Self development bridges learning gaps between the operational and institutional domains and sets conditions for continuous learning and growth. There are three variations: structured self development, which are mandatory learning modules to meet specific learning objectives and requirements; guided self-development, which is recommended, but



Continued on Page 4



Year in Review...continued from Page 3

optional learning that is intended to enhance professional competence; and personal self-development which is self-initiated learning to meet personal training, education, and experiential goals. Civilian education can also fall within this category.

Our strategy has also defined what types of key developmental and broadening assignments FA officers should seek out during key points of their career. For example, exposure to joint and interagency environments throughout a career facilitates interpersonal and managerial growth and aides in the transition from the tactical to the strategic level of senior leadership.

Our leaders must understand operating within a Joint, Interagency, Intergovernmental, and Multinational environment and must have both education and experience necessary for success in this environment. Experience and education will remain key to developing the strategic leaders of tomorrow.

Designing the Future Force

As our Army returns to training in combined arms operations and executing regionally aligned missions, significant capability gaps have emerged in the areas of effective Fires integration, training oversight of Fires battalions and professional development of our junior and mid-grade leaders. As a branch, one of the ways we are addressing these gaps is by updating our organizational structure.

In October 2013, the Department of the Army approved the Division Fires Command Force Design Update, which will create 10 Fires Headquarters assigned to the 10 active divisions and will retain four active Fires Brigades assigned to the three Corps and 8th Army. The command aligned to

the division will be called Division Artillery (DIVARTY) headquarters while the Fires Brigades will retain their current titles.

We will work diligently throughout 2014 and beyond to develop and refine the roles. Missions and supporting doctrine that will provide these Fires command new relevance into the integration of joint and combined arms fires.

FM 3-09 Field Artillery Operations and Fire Support

In December 2013, we revamped our 2011 version of *FM 3-09 Fire Support* to *FM 3-09 Field Artillery Operations and Fire Support* with the primary audience it is intended for being the maneuver commander and his staff. It gives commanders a single Field Manual on how the Field Artillery supports the maneuver mission during Unified Land Operations.

The revamped FM consists of four chapters which cover Field Artillery Operations, Fire Support, Fire Support and the Operations Process, and Fire Support Coordination and Other Control Measures.

The highlights of each chapter are as follows:

Chapter 1, Field Artillery Operations, focuses on the tactics used when conducting offensive, defensive and stability tasks. It also covers key terms and key organizations.

Chapter 2, Fire Support, covers all the basics found in the November 2011 version of FM 3-09 in a condensed and relevant format.

Chapter 3, Fire Support and the Operations Process, covers everything a field artilleryman should know about how Field Artillery fits into the Operations Process, Fire Support Planning, and Field Artillery Operations Planning.

Chapter 4, Fire Support

Coordination and Other Control Measures, covers everything supported commanders need to know about the clearance of fires and fire effects.

I am excited to see where the Field Artillery is going with this pivotal Field Manual. We are already working a revised version to be released in 2014.

Soldier 2020

As part of a Department of Defense requirement, in 2013 the Army announced its "Soldier 2020" plan.

During 2013, the USAFAS re-evaluated standards and validated gender-neutral standards for the majority of our MOSs. I am excited to say we are focusing on placing the right person with the right skills in the right job. We are on time and on target in matching the right Soldiers to jobs that best correspond to their abilities.

Opportunities for the future haven't been brighter. Beyond today we see a highway full of relevant opportunities that provide professional growth and opportunity for all of our professionals across numerous formations.

Sensors, platforms, munitions, and mission command

I would be remiss if I didn't express how excited I am about what is happening within our ongoing modernization efforts, most notably with our sensors, platforms, munitions, and mission command.

Accurate target location is our greatest challenge and number one priority in meeting the five requirements for accurate fire. Through technology and innovations such as the Lightweight Laser Designator



Continued on Page 5

Year in Review ...continued from Page 4

Rangefinder- Hand Held (LLDR-2H), we have made significant progress in reducing in Target Location Error (TLE) from approximately six meters to two meters.

While the LLDR-2H has been a huge success in 2013, and the future Joint Effects Targeting System (JETS) is set to provide more exceptional capability into the future. With JETS, we expect to achieve 10-meter target location error out to 2,500 meters and near precision accuracy at ranges greater than 6,000 meters. However, until we can completely field JETS, a Quick Reaction Capability (QRC) hand-held precision targeting device has been fielded to provide the dismounted FO an enhanced ability to accurately locate targets. The QRC device has bridged the gap between the target location capability found in the LLDR-2H and the objective capability found in JETS.

Likewise in 2013, additional groundwork was laid for the Precision Fires Warrior Ensemble. This ensemble is a collection of technology that is worn by the Soldier; it includes a mobile phone that is loaded with Forward Observer Software (FOS) and precision fires imagery, the Joint Effects Targeting System (JETS), a battery, a PRC 152A hand-held radio, and a data hub. Used together, this equipment enables the forward observer to direct both precision, near precision and area fires on the battlefield. Throughout 2013, the ensemble was refined through various tests in the field.

Also in 2013, the Paladin Integrated Management (PIM) program and the Digitized M119A3 Program have made great strides. The PIM is the latest howitzer in the M109 family of vehicles, the primary indirect fire support system for the ABCTs. It uses the existing main armament and cab structure of a Paladin M109A6, and replaces the vehicle's chassis components with modern components common to the Bradley vehicle. The improved chassis provides greater survivability and commonality with the existing systems in the ABCT, reducing operational sustainability costs by replacing obsolete components.

The Digitized M119A3 Program is on schedule and was fielded stateside in 2013 with phenomenal results. The upgraded M119A3 is equipped with a digital fire control system (DFCS) that includes an inertial navigation unit, guided-positioning system technology and other features that will give the weapon the ability to determine its precise location.

Excalibur and the XM1156 Precision Guidance Kit (PGK) continue to be critical priorities in our cannon munitions modernization effort. Guided Multiple Launch Rocket System (GMLRS) Increment IV addresses replacements for Dual-Purpose Improved Conventional Munitions (DPICM) and the Tactical Missile System (ATACMS) as they are phased out.

PGK has been fielded to units in Operation Enduring Freedom

and has demonstrated 50m or less Circular Error Probability (CEP) providing a tremendous near-precision asset to the commander.

Likewise there have been great advancements with the Advanced Field Artillery Tactical Data System (AFATDS) which has been the Field Artillery's primary fire support and mission command system for the past 20 years. In 2013, a lot of the initial ground work was completed to eventually combine all fire support system software/applications into one AFATDS Increment II software system. This migration of systems will provide ease of training, improved capability, resource savings, and a more streamlined path to software updates to accommodate future requirements. The end state for this strategy is scheduled for FY18, where one software application, designed to fit numerous roles, will support multiple fires functions.

2014

As we forge ahead into 2014, our focus will remain on providing an operationally adaptable force. It is the goal of everything we do here at Fort Sill, both as a branch and as a school. From equipment modernization to training to leader development, we have our eye on providing a force capable of winning in Unified Land Operations.

*King of Battle!
Fires Strong!*

BG Chris F. Bentley



Click to become a Facebook fan today @
<https://www.facebook.com/fieldartilleryredleglive>

Paladin hybridizes for future fleet

By Marie Berbera
Fort Sill Cannoneer

The Fires Center of Excellence Capabilities Development and Integration Directorate here, is celebrating a major victory after the Paladin Integrated Management program received Milestone C approval within the Defense Acquisition System.

This Materiel Development Decision moves the project from the engineering design phase of the acquisitions process into the manufacturing and production phase.

“This is a big win for the Army and the Field Artillery,” said Col. Michael Hartig, with U.S. Army Training and Doctrine Command Capability Manager Brigade Combat Team Fires, or TCM BCT Fires. “It’s a big win for us for years to come.”

The last time a weapon system was approved for production on this scale without an urgent needs statement from theater was probably the Bradley Fighting Vehicle.

“In today’s economic situation with the defense budget, you’re not going to get a new start. This is about as close as you can get to a new platform without being a new start,” said Hartig.

“It’s a huge improvement on what we currently have. The PIM (Paladin Integrated Management) is the same gun, same M109A6 fires delivery capabilities, but the hull, the bottom of the vehicle is brand new.”

The PIM has a higher profile than the current Paladin and was redesigned to accept components of the Bradley Fighting Vehicle, such as the engine, transmission, and tracks. Hartig said 27 percent of its parts are used on the Bradley, which will save the Army money in production costs, parts inventory and

in training maintenance personnel.

“The engine, the transmission, the road wheels, the torsion bars -- that’s what costs units money. If you deploy and have a maintenance issue, you have the ability to cross level parts from other organizations within the [armored brigade combat team],” said Hartig.

The new cab has more space with an all-electric system to replace the hydraulic system of its predecessor. The PIM also uses the 600-volt system from the Non-Line-of-Sight Cannon, which will provide enough power for future technologies.

“The logic is whatever the [armored brigade combat team] comes up with: if the Bradley gets a new [command and control or C2] device, we can put a new C2 device on ours. We can finally keep up with what our maneuver brothers are doing,” said Hartig.

The PIM has more armor to protect Soldiers inside as well as added technology that will alleviate the need to expose crew members operating crew served weapons from open hatches.

Doug Brown, deputy TCM BCT Fires, said the lack of protection for the crew chief was the number one complaint on the Paladin and the Field Artillery Ammunition Supply Vehicle in theater. To fix that problem the PIM can accommodate the common remote operating weapon system, known as CROWS.

“Instead of getting out of the turret to fire, you can do it inside the weapon using a screen. They are also making it possible for not only the crew chief to operate the CROWS, but that Soldier will be able to pass it to the gunner or the assistant section chief,” said Hartig.