

## From the Commandant's desk

I would like to start off this edition of the Redleg Update by inviting everyone to attend virtually the Fires Conference 2014 "Deep Future: 2025 & Beyond."

This will be a Fires community conducted, well-planned and superbly executed conference that promises to be informative, but will achieve the intent of enabling dialogue on some important issues – the modernization of Field Artillery Fires.

A lot of exciting things have happened already or are coming into fruition within the Field Artillery branch, and I am looking forward to discussing in detail what is planned not only for the immediate future but for 2025 and beyond. This year's conference is scheduled for May 6-7.

In this edition of the Redleg Update, which is the largest to date, you will find a pivotal article that details the implementation of our DIVARTYS. {See Divarty on Page 3}.

It is anticipated that this organizational design will be completed across the force by first quarter FY'16. The DIVARTY is a proven force design that will play a key role in reversing the continuing atrophy of Field Artillery skills, halt the erosion of professional and leader development in the fires Warfighting Function, and restore the art and science of synchronizing effects for precise and discriminating Fires.

Additionally within this article, we are detailing for the first time what Precision Fires is and how it is defined through what we are calling 80:10:10. The updates we have made within the Five Requirements for Accurate Fire (5RAF) necessitated an update in our Targeting Standards {See Page 4}.

This 80:10:10 ratio defines for us as professional Artillerymen the term "Accurate" in the First Requirement for Accurate Fires. It also defines for us, as a profession of arms, how we train, certify and deliver accurate target locations in support of Strategic, Operational and Tactical Fires. {See Page 4}

Within this article, we are also, for the first time, definining what Operational -Level Fires is, and how the Field Artllery integrates within Operational-Level Fires. {See Page 4}

From equipment modernization to training, we will continue to dominate in Unified Land Operations.

Also in this edition you will find an update on JFO {See Page 8}, an update on VBS3 {See Page 9}, facts everyone needs to know in reference to Soldier 2020 {See Page 10}, and a new addition, "This Month in History" {See Page 7}. I staunchly believe, as I paraphrase an old adage, we cannot see where



**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.

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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.

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### FROM the FA CMDT...continued

we are going if we do not remind ourselves where we have been. I hope you enjoy this new addition to the Redleg Update.

In closing, I'm confident we're not only developing the right materiel but the right training solutions to support the maneuver commander in all unified land operations.

We are achieving great things, and we truly are on the glide path to not only modernizing the Field Artillery but, Field Artillery Fires

Thanks for all you do, and I look forward to seeing some of you at the Fires Conference.

King of Battle! Fires Strong! BG Chris F. Bentley



# DIVARTY:

## A Force Multiplier for the BCT and Division

In December 2012, the Fires Center of Excellence (FCoE) submitted a FDU (Fires HQ FDU) to re-establish fires command headquarters at echelons above brigade (EAB), for consideration in the Total Army Analysis (TAA) process for fiscal years 2016-2020. On Oct. 3, 2013, the Vice Chief of Staff of the United States Army approved the Fires HQ FDU. The first DIVARTY will be fully operational on July 2014 with the 1AD. It is anticipated that this organizational design will be completed across the force by first quarter FY'16.

#### **Implementation of DIVARTYs**

The U.S. Army Forces Command (FORSCOM) Division Artillery (DIVARTY) Implementation Order provides clear guidance on the implementation and the role of DIVARTYs. To read the full order log on to FKN @ https://www.us.army.mil/suite/doc/42594219

The Army decision to implement DIVARTYs will provide Field Artillery (FA) capabilities (planning, synchronization, and coordination) in order to execute strategic, operational and tactical fires in support of Unified Land Operations (ULO) and to provide effective mission command for the training and readiness of attached FA units. Current Echelon Above Brigade (EAB) mission command FA force structure and organizational design does not sufficiently meet the required capabilities in support of Combatant Commander (CCDR) requirements as part of the Joint force. This results in the inability to effectively integrate and synchronize fires at Division, Corps and Theater Army in support of ULO.

The DIVARTY is a proven force design that will play a key role in reversing the continuing atrophy of FA skills, halt the erosion of professional and leader development in the fires Warfighting Function, and restore the art and science of synchronizing effects for precise and discriminating fires.

#### 80-10-10

Precision targeting is non-negotiable. So go-

ing forward we are implementing an 80-10-10 or a "Grid Getter Standard." 80-10-10 is a ratio based on a precision mindset that makes it necessary for Forward Observers and Fire Support Teams to achieve Joint TLE categories while on the battlefield. Specifically, achieving a CAT I (6.0M TLE) and CAT II (15M TLE) "precision grid" 80 percent of the time; achieve a CAT IV (50M TLE) "near precision grid" 10 percent of the time; achieve a CAT V/VI (200M or greater TLE) as a degraded operation, the final 10 percent of the time. This 80-10-10 ratio defines for us as professional Artillerymen the term Accurate in the First Requirement for Accurate Fires. It also defines for us, as a profession of arms, how we train, certify and deliver accurate target locations in support of Strategic, Operational and Tactical Fires. {See 801010 Chart}

Due to the complexities of the operational environment, the requirements for precise and discriminating fires, as well as the restrictions on employment of fires, these demands require that Fires organizations and Fire Supporters be thoroughly trained and certified. The Field Artillery Headquarters facilitates standardized core training throughout the FA chain by ensuring routine training as a complete FA systems, significantly enhancing the maneuvers commanders ability to plan, integrate, task organize, and execute Fires in support of ULO.

DIVARTY will provide operational-level Fires and better trained fires formations BY, WITH, and THROUGH the Brigade Combat Team and the Modular Force.

#### **Combat Power Enhanced BCT**

The Fires HQ FDU establishing the DIVARTYs and Field Artillery Brigades is just one critical element of a larger initiative to Modernize Field Artillery Fires based on lessons learned from twelve plus years of conflict. Supporting initiatives include; re-assignment



## **DIVARTY** ...continued -

		200	DOTML-PF IMPLICATIONS  Delivery of Near-Precision Grid											55	3	28	20	
		Delivery of Precision Grid									Unaided Non-Precision Grid							
	Frequency	80%	10%							10%								
ď	Accuracy	10m TLE (T) CAT II 6.0m TLE (O) CAT I	50m TLE CAT IV								200m TLE CAT V/VI							
	Current:  •FS3 (ABCT/SBCT)  •FOS/PSS SOF  •PFED/PFI  •LLDR-2H  Future:  •JETS  •PFED Inc II — Hand Held / PFW  • PFED INC - BOSS  • DPSS/DIEE		Current:  •FS3 (ABCT/SBCT)  •LLDR  •Vector 21  •Mark VII  •PFED								Current: •Binos •Map •Compass •Protractor •OF Fan						7	N 20
			TLE Categories (ref. Circular Error on Ground)	CAT I CE 0-20 ft 0-6 m			CAT 8 CE 21-50 ft 7 – 15 m		CAT III CE 51-100 ft 16-30 m		CAT IV CE 101-300 ft 31-91 m			CAT V CE 301-1000 ft 92-305 m		CAT VI CE >1000 ft (>305m) Or Large Elliptical Erro		oft n) ge
,	1	lobal Engine (AGE) g Technologies	Circular, Vertical, Spherical Error Predictions	CE BO	VE 8		E	VE SE 80 90	CE 90	VE 8E 90 90	CE 90	VE 8			SE 90	CE 90	VE 90	8E 90

Chart 80:10:10

of Fire Support personnel, currently assigned to the BCT Maneuver Battalions, back into the FA Cannon Battalions to better enable focused organizational training and certification programs and provide flexible employment of Fire Supporters to achieve the BCT Commanders Intent for Fires; Precision Gunnery POI implementation across the entire 13 series institutional training base that emphasizes use of precision technology enablers to achieve 80-10-10 targeting standards; precision enhanced CFFT III training that delivers high quality technology injects that immerses learners in collaborative practical and problem solving exercises that are relevant to their Fire Support environment and enhances competencies such as initiative, critical thinking, teamwork, and technical accountability; implementing ALM 2015 initiatives such as "Contextbased, collaborative, problem-centered instruction," that integrates the learner-centered, experiential methodology. All of these initiatives combined with Subject Matter Expertise residents within the Fires HQ FDU construct and the flexibility of DIVARTYs to

provide Reinforcing and Joint Fires will dramatically improve the lethality of the Maneuver formation from Squad to EAC.

#### **Operational-Level Fires**

As we go forward in the future, it will remain a requirement for us to provide Operational-Level Fires. 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 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 to provide access to and integrate joint, Army, and multinational Fires capabilities at the lowest appropriate levels." We are aggressively ad-



## **DIVARTY** ...continued

dressing this requirement for Operational-Level Fires and have proposed that Operational Fires should be conducted as a part of the Commander's operational design. This will allow the commander to achieve his desired effects on the enemy in a manner that does not require detailed integration with the scheme of subordinate maneuver elements.

Operational-Level Fires is the transition from the Theater Joint Force Air Component Command fight to air-ground integration fight. Operational-Level Fires are usually conducted at the operational level of war, but may be conducted at any level of war. Operational-Level Fires generally integrate Army Field Artillery (surface-to-surface) fires with joint and multi-national capabilities but could be conducted by any combination of available fires assets. Field Artillery Brigades and DIVARTYs focus on the conduct of Operational-Level Fires, including the integration of sensors and intelligence assets to support the targeting process, although they can also conduct Close-Support Fires that require detailed integration with the scheme of subordinate maneuver elements. Close-Support Fires are usually planned, coordinated, integrated, synchronized and conducted by BCT Field Artillery battalions.

For additional understanding on what the new DIVARTYs will bring to the force, the United States Army Field Artillery School has put together some "facts on the Fires HQ FDU."

#### **Fires HQ FDU FACTS:**

The Fires HQ FDU creates a DIVARTY for each active component Division and will align an active component Field Artillery Brigade (FAB) to each Corps and one to Eighth United States Army (EUSA). The term "Fires Brigade" (FiB) is being replaced with Field Artillery Brigade (FAB). The FDU does not alter the organization of the Army National Guard (ARNG) FABs; however ARNG FABs will be aligned with ARNG Divisions for training affiliation and will be capable of serving as a DIVARTY to support ARNG Divisions during deployment and provide reinforcing and counterfire capability to a Corps or Joint Task Force (JTF).

The primary task for the FAB includes coordination, integration, synchronization and employment of fires as well as provides long range precision fires to

the Corps through strike operations. This may also include the coordination of Joint and Multinational fires. Initially, the active FABs will be composed of Rocket Battalions. The number and mix of FA Battalions assigned to a FAB will vary depending on mission and number and type of Divisions assigned to the Corps. The FAB consists of a Brigade Support Battalion, an HHB, a Signal Company, and a Target Acquisition Platoon (TAP). The FAB will train with and achieve the same regional focus as its assigned Corps. The FAB does not replace the Corps fire support cell. The FABs subordinate FA Battalions may be allocated/task organized to DIVARTYs or other FABs. This will be accomplished using command and support relationships, such as reinforcing (R), to provide enhanced fire support capability. The FAB is the Force Field Artillery (FFA) Headquarters for the Corps. The FAB Commander is the Corps Fire Support Coordinator (FSCOORD).

For DIVARTY the primary tasks include coordination, integration, synchronization and employment of fires to achieve the Division Commander's objectives. This also includes the coordination for Joint and or Multinational Fires. The DIVARTY will have no organic firing units, but can be provided a variety of FA Battalions (rocket and cannon) and other assets to accomplish its mission for the Division Commander. This may include a combination of one to five rocket/ missile (MLRS or HIMARS) and/or FA Cannon Battalions as well as other enablers. The DIVARTY consists of a Headquarters (HHB), a Signal Platoon, and a Target Acquisition Platoon (TAP), initially consisting of two AN/TPQ-37 Radars and over the next six years transitioning to two AN/TPQ-53 Radars. DIVARTYs will provide command oversight for training management and certification of the Brigade Combat Team (BCT) FA Battalions, and Fire Support Cells. DIVAR-TYs will provide synchronization of sensors such as Sentinel and counterfire radars organic to the Division as well as synchronization of Joint sensors. This sensor integration capability significantly strengthens the Division's ability to support information collection and targeting for the Division and Brigade Combat



## **DIVARTY** ...continued

Teams throughout the depth of the operational environment. The DIVARTY will also function as the FFA Headquarters for the Division. The DIVARTY Commander is the Division FSCOORD.

For additional understanding, this article also outlines the DIVARTY components from an Indirect Fires Capability Portfolio Review.

#### **Indirect Fires Capability Portfolio Review**

The Fires Concept from the Indirect Fires Capability Portfolio Review (IDF CPR) is an effective view of the capability DIVARTYs bring to the BCT. DIVARTY will be set to synchronize and integrate Divisional and Joint level sensors, shooters, amplifying fires lethality capabilities provided to BCT's through their dedicated Field Artillery Battalions.

{SEE OV-1 Chart below}

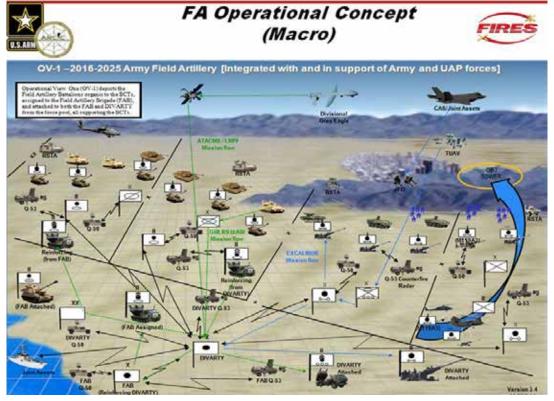
#### Conclusion

As we implement this Fires HQ FDU, it will not be a repeat of the 2004 DIVARTY.

We are not merely pulling and implementing DIVAR-TY doctrine from days gone by, dusting it off and calling it good. The DIVARTYs will provide modernized relevance through focused implementation of emerging Fires technologies and expert integration of Joint and Combined Fires. BCTs will be empowered by enhanced Fires capabilities delivered by Precision Fire Supporters with world-class training and certification, precision equipment and leaders adept in the art of Fires and Mission Command. This embedded fires capability amplified by Reinforcing and Joint sensors management and fires provides the Army with Fires that meet the requirements within the full spectrum of ULO. The Fires Center of Excellence encourages open dialogue as we build our DIVARTY's and Fire Support teams to maintain our position as the King of Battle!

Go to this link on FKN to read the DIVARTY White Paper in its entirety@

https://www.us.army.mil/suite/doc/42414285



**OV-1 Chart** 

# THIS MONTH IN HISTORY dizabeth A. Tourville became the

6 April 1978, 1lt Elizabeth A. Tourville became the first female commissioned officer in the Field Artillery upon transferring from the Ordnance Branch. She attended FAOBC 10-78 where she served as class leader and later graduated from the Pershing Officer Course.

13 April 1955, The Department of the Army redesignated The Artillery School as The Artillery and Guided Missile School and The Artillery Center as The Artillery and Guided Missile Center because of the addition of rockets and missiles to the Field Artillery. The Artillery and Guided Missile School taught courses on surface-to-surface guided missiles and rockets, while The Antiaircraft Artillery and Guided Missile School at Fort Bliss, Texas, taught courses on surface-to-air guided missiles.

**20** April 2009, Seven FA units (HHB 3ID DIVARTY, 1-9 FA, 1-10 FA, C/3-13 FA, 1-39 FA, 1-41 FA, and 2-319 FA) were awarded the Presidential Unit Citation for actions during the Liberation of Iraq Campaign.

21 April 1919, The War Department redesignated the School of Fire for Field Artillery as the Field Artillery School and tasked it to train Regular Army and National Guard officers and enlisted soldiers. The school focused its instruction on general technical training, furnished some instruction in the handling of a battery to prepare officers for battery command, and conducted enlisted specialist courses in mechanics, horseshoeing, saddlery, and carpentry, and other subjects.



# Moving Forward with Joint Fires

The Joint Fires Observer (JFO) School at Fort Sill started the year off strong in Joint Fires. During the month of January, JFO conducted a resident course, the first ever MTT to Latvia, and sent the first 13F JFO-Instructor to the Joint Terminal Attack Controller – Qualification Course (JTAC-QC), all with phenomenal results.

The first JFO resident class of 2014 was both the largest, with thirty two students, as well as one of the most diversified groups of students the course has seen. It consisted of Joint Service Members from the US Air Force, US Marine Corps, 1st Special Forces Group, 75th Ranger Regiment, numerous Brigade Combat Teams, and the National Guard. The diverse collection of experience and knowledge from both the instructors and students greatly enhanced the course and enabled the entire class to graduate. This was the

first resident class in the history of the JFO program to do SO.

In order to help develop partner nation capacity, JFO sent an MTT to Latvia to train twenty four Latvia Land Forces (LLF) Students for certification as well

as fifteen observers, three of which were JTACs from other foreign nations. Due to the rigorous pre-training conducted by the Latvians as well as the expert coaching, teaching, and mentoring from the JFO-Instructors, all twenty four students successfully graduated. This course not only certified Latvian Soldiers, but will assist Latvia in developing



JFO Resident Course 004-14

their own JFO certification course in the near future.

SFC Richardson, a current JFO-Instructor, successfully graduated JTAC-QC class 14-03 at Nellis AFB, NV. While the Army has a small number of

JTACs in the Special Operations Command, SFC Richardson became the first 13F in the conventional Army to complete the JTAC-OC and the first JFO-Instructor to be certified as a JTAC under a Memorandum of Agreement between FCOE and the Air Force's 57th Operations Group that allows for the training of JFO-Instructors as JTACs. His new-found knowledge will greatly enhance the success of the JFO Program and make him an invalu-

able Joint Fires asset to the Army.

The US Army JFO course at Fort Sill started the new year off strong, and is anticipating a very successful 2014 by creating many new Joint Fires Observers and promoting Joint Fires across our Force and with our Partner Nations.



**Latvia Land Forces JFO MTT** 



SFC Derrian J Richardson

## VBS3 is now live on the MilGaming Portal

Virtual Battle Space 3: US Army is the updated replacement to the highly successful VBS2 training simulation. VBS3 is a 3D first-person games-for-training platform that provides realistic semi-immersive environments; large, dynamic terrain areas; hundreds of simulated military and civilian entities; and a range of geo-typical (generic) terrain areas, as well as actual, geo-specific terrains from U.S. Army areas of operation. Numerous U.S. Army, Marine Corps and US Air Force items of equipment are modeled in the game. Supporting over 100 trainees in the same exercise. VBS3 and its powerful after-action review capability provides a versatile environment to train both individual and collective tasks. It also comes with a robust development toolkit that includes the ability to edit and create scenarios, models, and terrain datasets. VBS3 is compatible with DIS and HLA, providing integration with Live, Virtual, Constructive architectures. VBS3 comes with the following capability plugins:

- \* VBS2Fires an advanced call-for-fire module that simulates artillery, naval gunfire support, mortars and MLRS to a high level of detail.
- \* VBS Fires/AFATDS an additional module that works with Fires to represent call-for-fire traffic between a Forward Observer and an AFATDS box.
- \* Ambience for VBS3 two modules (Crowd and Insurgent Ambience) that model the movement of civilians around a city and the operations of an insurgent cell.

- \* Human Dimension Modeling (Avatar) a module that allows the user to import their certifications and personal performance data to their VBS3 avatar, providing more realistic performance during an ingame mission
- \* Digital Chalkboard/Virtual Mission Rehearsal (VMR) a user-friendly module for mission rehearsal, providing a 21st century version of the "Sand Table" to analyze, rehearse, and after-action review training and operational scenarios
- \* Scenario Tool a Order of Battle System (OBS), v3.0 importer that allows trainers and exercise planners to more easily prepare for Live Virtual Constructive (LVC) exercises by importing OBS scenario files

Minimum System Requirements: Windows 7 64bit, Intel Core2Duo 2.4GHz, 4GB RAM, 40GB Disk Space, Nvidia Quadro FX 3700M 1GB

Targeted System Requirements: Windows 7 64-bit, Intel i7-2630QM 2.4Ghz, 16GB RAM, 40GB Disk Space, AMD FirePro M6000 2GB.

Click here to log in with your CAC card and request your copy:

https://milgaming.army.mil/VBS3/

https://milgaming.army.mil/VBS3/software.aspx



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https://www.facebook.com/fieldartilleryredleglive

# Five things to know about Soldier 2020

#### U.S. Training and Doctrine Command

#### 1. It's about standards

TRADOC's first effort, in collaboration with U.S. Army Medical Command's U.S. Army Research Institute of Environmental Medicine, or USARIEM, is a study of the physical demands required for each military occupational specialty, or MOS, throughout the Army, beginning with MOSs currently closed to women.

TRADOC and USARIEM have identified the critical physically demanding MOS specific tasks. Applying scientific rigor and methodology, USARIEM is using laboratory equipment to instrument Soldiers while they carry out these tasks. These measurements will determine the physiological capabilities (e.g., strength, endurance and energy) that an individual must have to complete specific tasks to acceptable standards. These measurements will also help the Army establish clear, updated standards across the force.

"Soldier 2020 is about a standards-based Army; upholding the standards of our profession -- the Army Profession," said Command Sgt. Maj. Daniel Dailey, TRADOC senior enlisted adviser. "Our work will allow us to match the right Soldiers, regardless of whether they are men or women, to jobs that best correspond to their abilities."

#### 2. It's about leadership

TRADOC's second effort, led by the TRADOC Analysis Center, is an extensive study of the institutional and cultural factors associated with integrating women into previously closed MOSs.

Using focus groups, interviews, surveys, Soldier feedback, an ongoing literature review and collaboration with numerous outside agencies, TRAC's effort will not only study current policies and processes, but will also look at potential implementation strategies and possible barriers to success that may be driven by culture and tradition.

#### 3. It's about doing it right

Gen. Robert W. Cone, commanding general of TRADOC, said the studies will take time in order to be successful and must be done right in order to maintain the credibility of the institution while improving standards throughout the Army.

"The combat readiness of our Army must remain the first priority," Cone said. "While this integration requires a well-thought out approach, I am confident we can do this right and improve the total force." During a visit earlier this year to Joint Base Lewis-McChord, Wash., Sgt. Maj. of the Army Raymond F. Chandler III said the changes won't -- and shouldn't -- happen overnight, but rather, they should be deliberate and incremental.

"The first and largest obstacle the Army must overcome for integration is the culture," Chandler said. "There is still a perception in some parts of the Army that female Soldiers won't be able to do the same things as their male counterparts, or that we won't be as successful if we have them in combat arms organizations. I think the people saying these things are a vocal minority."

#### 4. It's about Soldiers

Using a standards-based approach, Soldier 2020 aims to remove barriers, thereby giving every Soldier the opportunity to serve in any position where he or she is capable of performing to the standard, according to TRADOC's commanding general.

"Soldier 2020 holds the promise of improving quality across our warfighting formations, while providing a level field upon which all soldiers can succeed based upon talent," Cone said.

Additionally, the Army will be better able to select and train Soldiers -- regardless of gender or age -- who are able to safely perform the physically demanding tasks of the MOS, with the goal of fewer training injuries.

"There are Soldiers right now in almost every MOS who are not capable of doing their jobs," said Marilyn Sharp, USARIEM research scientist and project lead investigator for Soldier 2020. "And not only are they the ones who probably get passed over for promotion, but they're the ones who get hurt because they're in a job they're not physically qualified for."

Fewer injuries mean stronger Soldiers, and stronger Soldiers means a stronger Army.

#### 5. It's about building a stronger Army

The Army of the future will require mental agility, teamwork and resilience from all Soldiers, regardless of gender, and the goal is to identify, select and train the best-qualified Soldiers for each job, which ultimately strengthens the Army's future force.

"In the end, we will only get better because all of our Soldiers -- men and women -- continue proving themselves as highly capable warriors on a daily basis, Cone said. "By expanding opportunities and assignments for women, we will only strengthen the force."