

July 26, 2013

NTSSC **This Week**



Natick Soldier Systems Center Public Affairs Office



Fit to be tried

ACU-A brings advanced sizing to new Soldiers

Also inside

- **Holster up**
- **Taking charge**
- **Former Natick CSM at NETCOM**
- **Cuts would be 'devastating'**
- **A moveable feast**

New Soldiers try on their Army Combat Uniforms, known as ACUs, the ACU-Alternate uniform, boots and other equipment during reception, June 20, 2013, at the Central Initial Issue Point at Fort Sill, Okla., before going to Basic Combat Training.



Photo Credit: Spc. Danielle Gregory

By Spc. Danielle Gregory / FORT SILL, Okla. (July 8, 2013)

A new Army Combat Uniform with special consideration to the female form is now at Fort Sill, and it is being issued to new Soldiers going through Basic Combat Training.

The new uniform, several years in the making, was initially considered as being the first female-only uniform, but instead is now approved for both sexes and is being called ACU-A for Army Combat Uniform-Alternate.

“We started issuing them slowly in April, and we’ve since been issuing them more frequently as our fitters get more comfortable placing Soldiers in them,” said Trevor Whitworth, Central Initial Issue Point project manager, where new Soldiers are first issued their uniforms.

“They were initially designed for female Soldiers, but we were told if we find male Soldiers that these would fit better than the ACUs then we can issue it to them as well,” Whitworth said. “It’s more about the fit and the body type.”

The new uniform trousers feature wider areas at the hips, waist and backside; elastic around the waistband instead of a pull string; adjusted pockets and knee-pad inserts; and a shortened crotch length.

In the jackets, changes include adjusted rank and nametape positioning; adjusted pockets and elbow-pad inserts; slimmer shoulders; a thinner and more fitted waist; and a longer and wider ACU coat bottom. Also, buttons are replacing the Velcro pockets.

Compared to the original ACUs, which were designed principally by males for males, the new ACU-As were created to fit a wider range of body types; so there are also a lot more sizes to choose from. There are 16 sizes in both the jacket and trouser.

“The old uniform was meant to be one size fits five sizes; these are more tailored,” Whitworth said.

At Reynolds Army Community Hospital, 1st Lt. Beatriz George, a dietitian, said she thinks it’s great to have more sizes to choose from. She said when Fort Sill gets the uniforms at the Military Clothing Sales store she will try them on and consider buying a pair.

“With our uniforms now, it’s like it’s either too tight or too big; it doesn’t feel right as they are now,” George said.

Although interested in the new uniforms, she said if they were created to be noticeably different, she wouldn’t want to wear them.

“What’s great about the military is that everyone is equal, and it’s one of the few professions where men and women are paid the same, but if you can’t tell, and they are unisex, then I’m okay with it,” George said.

Program Executive Office Soldier, the program that develops and improves military uniforms and equipment, developed the new uniforms by letting male and female Soldiers wear the uniform and provide feedback. This came about after a 2008 focus group of female Soldiers showed

Maj. Sequana Robinson, who was one of many that tested the new uniform, said in a PEO Soldier press release that she was very skeptical when first hearing of the uniforms; she didn’t think women needed a uniform more fitted to their bodies. After trying it on the first time, she was pleased with the fit.

PEO Soldier is also in the process of developing female body armor and a female flight suit. Both are still in development stages.

New black and yellow PT uniforms are also in the development stages, and a new improved duffel bag, which includes a zipper, has just been released and is being issued to basic training Soldiers.

ACU-As are available for purchase at Fort Sam Houston, Texas; Fort Lee, Va.; and Fort Myer, Va., Clothing Sales stores. Fort Sill’s Military Clothing Sales store does not yet carry them. While only a limited number of military Clothing Sales stores have the ACU-A in stock, it can be specially ordered at all of them.

“Clothing Sales at Fort Sill won’t have the uniforms available until sometime near the end of the year,” said Henrietta Haughton, a manager at the Fort Sill Military Clothing Sales Store.

Although the ACU-A is not yet available for purchase brand new at Fort Sill, Whitworth recommends that Soldiers start coming to the reclamation sales they hold every month. The reclamation sell is where Soldiers can buy uniforms lightly used

Fit to be tried

ACU-A brings advanced sizing to new Soldiers

“If it makes you more comfortable in wearing that, then I think it’s well worth it,” Whitworth said. “When you’re low crawling or doing a lot of physical training it’s nice to have a pair of trousers that have a little give-and-take in them. I think having made uniforms for a female body type, will make a big difference for female Soldiers.”

PEO Soldier that ACUs have a non-female-friendly fit.

Many females in the focus group reported that the knee-pad inserts fell on their shins, that they didn’t have as much mobility because of the poor fit, and that they felt they had an overall unprofessional appearance.

by trainees who do not complete Basic Combat Training.

Because the CIIP here just started issuing the new ACU-As in April, Soldiers might start to see a few of these uniforms at reclamation sales starting in August, Whitworth said. He urged Soldiers to get to the sale early, because uniforms go fast.

Photo credit: David Kamm, NSRDEC Photographer

Darren Bean, an equipment specialist with Product Manager Soldier Clothing and Individual Equipment at Natick Soldier Systems Center, has been working since November 2012 on the M320GL Holster Soldier Enhancement Program.



Holster Up

Looking for a better way to carry the M320

By Bob Reinert, USAG-Natick Public Affairs / NATICK, Mass. (July 24, 2013)

When the M320 40 mm grenade launcher began replacing the M203 in 2009, it put a new and more lethal weapon into the hands of the Soldier.

There was one question, however. How would he or she best carry it?

An equipment specialist with Product Manager Soldier Clothing and Individual Equipment, or PM SCIE, is trying to answer that question. Darren Bean has been working at the Natick Soldier Systems Center since November 2012 on the M320GL Holster Soldier Enhancement Program, or SEP.

The detachable M320, named one of the Army's top 10 inventions of 2009, comes equipped with a sling to carry it when not mounted to the M4 carbine or M16 rifle, according to Bean.

"It was a one-point sling, so (the weapon) was kind of bouncing around," Bean said. "If you went down to the ground, you were dragging it through the dirt. Most people felt that protection was needed at some level because they were just getting dragged in the dirt and pounded on."

Some Soldiers began looking for a better solution than the sling for the M320, which weighs seven pounds with the butt stock.

"They decided they wanted to be able to put it in a holster rather than just shove it in their ruck sack," Bean said.

The SEP allowed the purchase of enough holsters to equip a brigade combat team. He said the "buy-try-decide" concept allows the Army to test the functionality of equipment without spending a lot of time on research and development.

Bean found three commercial vendors who make M320 holsters, so PM SCIE acquired 167 of each. "They're of varying design," Bean said. "All three of them were very different from each other."

One model includes pockets for grenades but is bulky. Another is more streamlined but offers less protection for the weapon. The third is a cross between the other two.

Bean put the holsters in the hands of a dozen Soldiers from the 75th Ranger Regiment at Fort Benning, Ga., who went through a set of standardized tests in mid May. The Soldiers filled out surveys after the testing.

The testing was to make sure it was realistic to go forward, Bean said.

"Now we can actually test them with an entire brigade," he added.

Each one of the holsters has had small issues, according to Bean.

"None of them have performed necessarily any better than the other ones," Bean said. "They all have some small things that need to be tweaked."



Soldiers of the 10th Mountain Division from Fort Drum, N.Y., the 86th Infantry Brigade Combat Team of the Vermont National Guard, and Soldiers in Afghanistan are currently evaluating the holsters. The Consumer Research Team at the Natick Soldier Research, Development and Engineering Center will collect data. PM SCIE officials will then make a recommendation to the Maneuver Center of Excellence at Fort Benning by the beginning of Fiscal Year 2014.

"The need is there, for sure," Bean said. "I think the end state of this will be that they will say, 'Yes, we need a grenade launcher holster for this when we use it in the stand-alone mode.'"

Taking Charge

By Dan Lafontaine, U.S. Army RDECOM /
ABERDEEN PROVING GROUND, Md.
(July 16, 2013)

Conformal battery unburdens Army's networked Soldiers

The U.S. Army is developing a battery to improve Soldiers' agility on the battlefield while meeting the demands of an increased power burden stemming from new networked electronic devices.

The Conformal Wearable Battery, or CWB, is flexible and integrates into a Soldier's body armor. It conforms to the body, which Army officials say is a significant upgrade to traditional batteries that are rectangular and bulky.

The U.S. Army Research, Development and Engineering Command, or RDECOM, and Program Executive Office Soldier have partnered to fulfill the requirements of today's networked Soldier with the CWB.

ERGONOMIC BATTERY INTEGRATED INTO UNIFORM

Developing a battery that fits seamlessly into a Soldier's uniform was one of the project's priorities, said Christopher Hurley, an electronics engineer who leads the battery development projects team at RDECOM's Communications-Electronics Research, Development and Engineering Center, known as CERDEC.

"Our role is to develop smaller, lighter, cost-effective power sources," Hurley said. "Providing a wearable, ergonomic, comfortable footprint is key. [We took] that big, bulky battery and made it conformable and more comfortable to be worn by the Soldier."

The CWB provides more power, reduces the need for battery re-charging and spares, and serves as a single source of power for all worn electronic devices, Hurley said.

Hurley said the Army's standard batteries, the BA-2590 and BA-5590, were designed to be

placed in battery boxes and large communication equipment and not to be worn by the Soldier to power his electronics.

The CWB, however, is made specifically to be worn within a tactical vest, said Steve Mapes, product director for Soldier Power within PEO Soldier's Project Manager Soldier Warrior.

"When you slip a conformal battery into the protective vest and over the [Small Arms Protective Insert] plate, it's virtually invisible and transparent to the Soldier."

Steve Mapes, product director for Soldier Power within PEO Soldier's Project Manager Soldier Warrior

"[The conformal battery] allows the Warrior to share space with other equipment that he has to carry on his load carriage," Mapes said. "A traditional 2590 or 5590 does not share space on the body armor. It requires its own committed space on the load carriage."

"When you slip a conformal battery into the protective vest and over the [Small Arms Protective Insert] plate, it's virtually invisible and transparent to the Soldier. Now the Soldier can still hang his magazine, grenades or flashlight over the battery. The conformal battery allows the Soldier to share valuable, limited real estate."

SINGLE SOURCE OF POWER

Hurley and his fellow CERDEC engineers have developed six CWB prototypes since 2008. During each iteration, the goal has been to demonstrate a battery that is smaller, lighter, provides longer-lasting power and eliminates the need for a separate battery for each electronic device, he said.

"We look to reduce a Soldier's load with the number of batteries [Soldiers] carry and consolidate that into as few batteries as we can," Hurley explained. "The conformal battery is a centralized power source for all the things that a Soldier needs to carry -- GPS, smartphone, radio, other electronics, (and) eliminate the extra batteries for each individual item."

"No longer do you need to carry extra radio or GPS batteries," he continued. "You only need to carry spares for the conformal battery."

CERDEC accomplishes these advancements through experimenting in the laboratory with different chemistry formulations that yield a high-energy, high-power battery that is safe, Hurley said. The target is a battery that enables 72 hours of continuous operation.

MEETING NETWORKED SOLDIERS' POWER REQUIREMENTS

The Army's conventional batteries can no longer handle the power demands for worn devices such as Nett Warrior, a handheld tool that provides situational awareness and mission command capabilities, Mapes said.

These networked systems are always sending and receiving data, similar to leaving a cell phone on during a flight. They continuously search for a signal, which rapidly drains the battery.



Photo Credit: Conrad Johnson, RDECOM

The Conformal Wearable Battery, which is shown being placed into a tactical vest, is flexible and conforms to the body. It provides more power, reduces the need for battery re-charging and spares, and serves as a single source of power for all worn electronic devices.

"The introduction of 'Soldier in the network' brings with it an unprecedented level of capability and amount of power consumers that are worn on the individual warfighter," Mapes said. "You have a power burden that has never before been imposed upon Soldiers, particularly the small-unit leaders. The traditional power strategy for the individual warfighter was fast becoming impractical and irrelevant."

SUPPORT THROUGH DEFENSE ACQUISITION CHALLENGE

Mapes said the Defense Acquisition Challenge Program, or DAC, helped the Army accelerate the battery's progress and ultimately deliver them to Soldiers sooner. DAC provided a portion of the project's funding from 2010 to 2012.

"DAC allowed us to take samples earlier for testing and validation," Mapes said. "[We received] preliminary Soldier feedback so we could make some immediate improvements on the battery and get a more production-representative version out to the formations. We leveraged everything we could to accelerate tests, user feedback, exposure of the battery to the formation."

"Bottom line, we wouldn't have had the batteries available to go through these tests and get the Soldiers to use and evaluate them had it not been for these earlier efforts," Mapes continued.

The Department of Defense established DAC in 2003 in response to a Congressional mandate for a program that was innovative, flexible, competitive and affordable to integrate mature technologies into the acquisition cycle.

The Office of the Secretary of Defense Comparative Technology Office evaluates the proposals and selects candidates for funding. The RDECOM Global Technology Integration Team manages the program for the Army. DAC was funded through fiscal year 2012.

BENEFITS OF ARMY R&D CENTER

Hurley emphasized that working with an Army research, development and engineering center includes complete program management -- development, prototyping, engineering support, in-house testing and evaluation.

"Not only do we have the expertise of developing batteries and other power sources, but we also understand how these come together in a Soldier network for something like Nett

Warrior," Hurley said. "We understand the integration and how the battery marries up with the other Soldier-borne electronics."

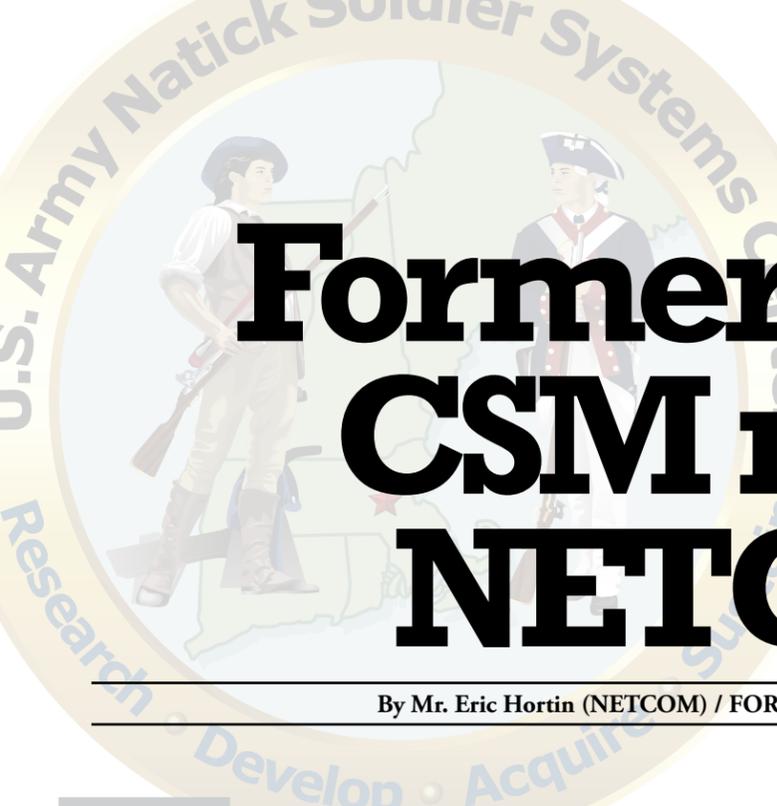
"Our lab is different because we develop complete products. We do not develop a single component. We are a product-oriented organization."

FUTURE OF CONFORMAL BATTERY

PEO Soldier and CERDEC have taken the CWB to large Army demonstrations and exercises such as the C4ISR Network Modernization, Army Expeditionary Warrior Experiment and Network Integration Evaluation. These tests allow the organizations to capture Soldiers' feedback that will shape future versions of the battery.

Mapes said the battery will make a significant improvement in Soldiers' missions.

"We have already realized gains in the area of Soldier load and reduction in the numbers and types of battery. I'm very encouraged by the feedback. I don't have to sell it. I find myself in the pleasant position of not having to convince Soldiers that they need this. They're requesting it. It's very gratifying," he said.



Former Natick CSM now at NETCOM

By Mr. Eric Hortin (NETCOM) / FORT HUACHUCA, Ariz. (June 28, 2013)

Today, Network Enterprise Technology Command observed the traditional passing of the Noncommissioned Officer Saber from one command sergeant major to another. In the ceremony, Maj. Gen. Alan R. Lynn, NETCOM commanding general, symbolically passed the responsibility of the senior enlisted position from Command Sgt. Maj. Gerald W. Williams to Command Sgt. Maj. Earl B. Allen.

“The past three and a half years, I’ve had the opportunity to serve as command sergeant major for this great organization,” Williams said. “I’ve had the opportunity to serve with three fantastic -- absolutely phenomenal -- general officers. All of them were equally dedicated and charged to make a difference during their watch.”

Williams went on to thank each of the commanding generals he worked with for bringing him onto the team and keeping him around.

“It’s not always a given when a new commander comes to town,” Williams said. “That commander has to also accept that noncommissioned officer for what his intent and mission is for that organization; and know and feel comfortable that I’m going to provide the support they need in order to accomplish their mission.”

“It takes a unique leader to provide senior leadership and mentorship across the nation and around the globe, Lynn said. “Command Sergeant Major Williams... he made that look easy.”

“You can expect nothing less than 100 percent dedication, commitment, trust and loyalty from me.”

Command Sgt. Maj. Earl B. Allen

Lynn was highly complementary on Williams’ time as the command’s senior enlisted soldier. Williams was lauded for his support for a number of programs to promote the welfare of the workforce, enabling the command to be the Army’s top command in retention for three years straight, for having a runner-up in the Army’s Best Warrior Competition for three years straight and for establishing the first Sgt. Audie Murphy Club in NETCOM.

“Command Sergeant Major Williams has been instrumental in the development, training and professionalism of the NETCOM noncommissioned officers and Soldiers,” Lynn said.

Lynn has known Williams for a number of years, including tours in the combat zones.

“Everyone in combat brings their A-game,” Lynn said. “Command Sergeant Major Williams always brought an A-plus game. He

knows of no other way to be... in combat or in peace. He is literally the best at best at being the outstanding leader to which Soldiers are entitled.”

Allen’s arrives in the command after his most recent assignment as the command sergeant major of the 11th Signal Brigade. Allen has held numerous positions as a noncommissioned officer, in a multitude of locations in South Korea, Germany, the United States and Southwest Asia.

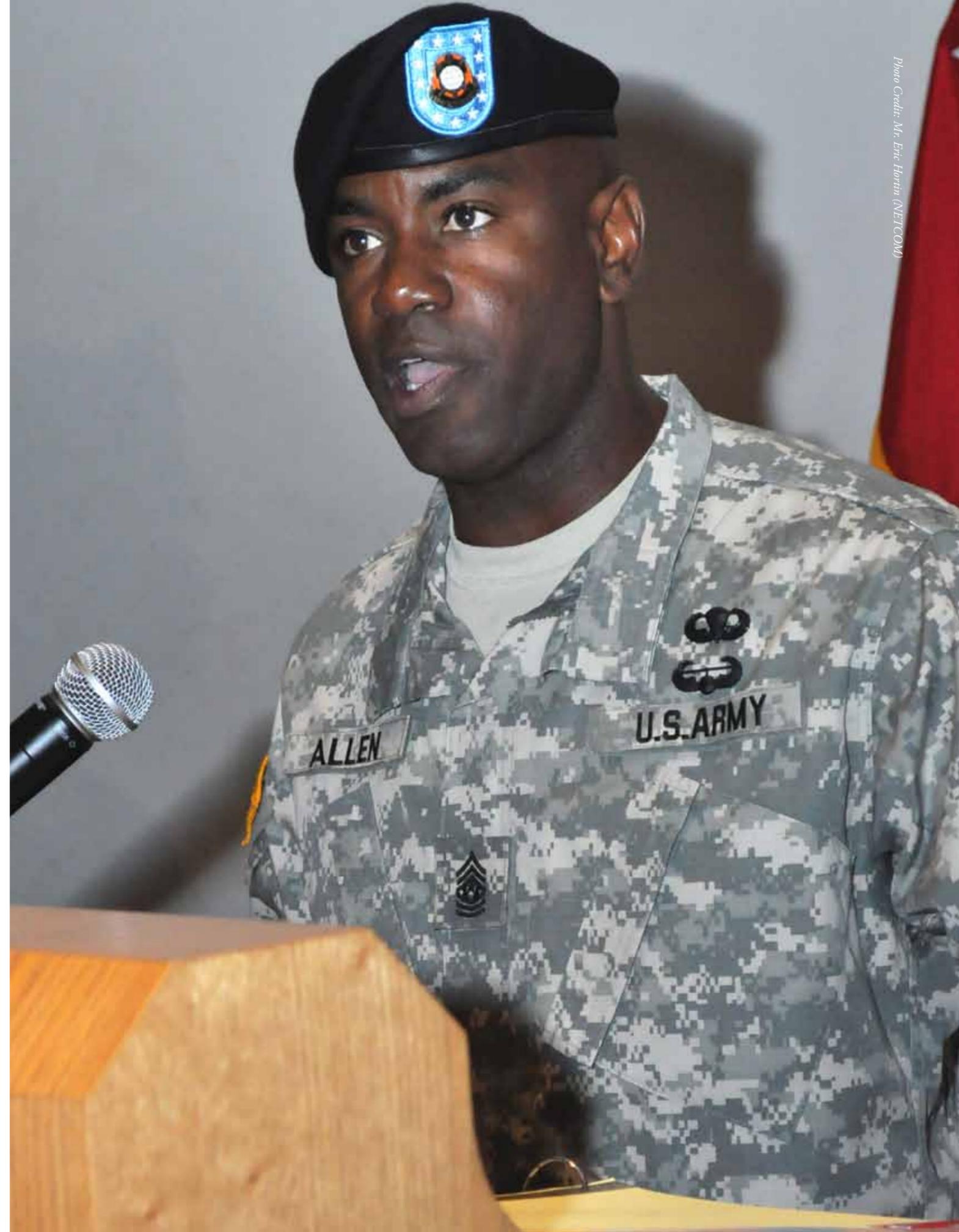
“Major General Lynn... Thank you for trusting and giving me an opportunity to become a member of your team,” Allen said. “You can expect nothing less than 100 percent dedication, commitment, trust and loyalty from me.”

Allen had special words and thanks for Williams, with whom he has a professional and personal relationship.

“To Command Sergeant Major Williams... you are the epitome of a NCO,” Allen said. “You are a mentor to Soldiers, Civilians and Family members alike. You have, without question, been a blessing to my family and we want to personally thank you for all you have done for Team Allen.”

Williams is preparing for retirement, and his retirement ceremony is scheduled for Aug. 1. He plans to retire near Fort Bragg, N.C.

Command Sgt. Maj. Earl B. Allen, taking over as the command's senior enlisted Soldier, talks to attendees during the change of responsibility ceremony.





Cuts would be 'devastating'

By J.D. Leipold / WASHINGTON (Army News Service, July 19, 2013)

The Army cannot afford to mortgage its future by allowing for reductions in science and technology funding, said the director of the Army Acquisition Corps before an Association of the United States Army breakfast meeting, July 18, in Arlington, Va.

Citing \$37 billion in cuts throughout the Defense Department, and another \$52 billion in cuts potentially facing DOD in fiscal year 2014, Lt. Gen. Bill Phillips told the Army and business leaders in the audience that, in his opinion, it will take a generation to recover from the effects of the budget control act and sequestration.

"In a word, it's 'devastating,' a word I've used in testimony twice before Congress in this year alone," said the general who has also served as military deputy for the Office of the Assistant Secretary of the Army for Acquisition, Logistics and Technology, known as ASA(ALT), since 2010.

"As we look out in the future and maybe

have reductions in procurement and RD&A (research, development and acquisition) accounts, and I believe we will, we can't leverage S&T (science and technology) because when we come out of this we have to have programs in place in the technologies to push the Army forward," Phillips said, "because the last thing we ever want to do is have a Soldier go into combat and it be an even fight."

To ensure the advantage always lies with the American G.I., Phillips stressed the importance of the "network," which continues to evolve to let Soldiers know where they are, where their battle buddies are and where their enemies are.

"Industry has a play in everything we're going to do in building this network, but it starts with the CIO (Chief Information Officer G-6 Lt. Gen. Susan Lawrence) doing the technical architecture for everything we'll implement in the network," he said. "It's (Lt.

Gen.) Keith Walker and [U.S. Army Training and Doctrine Command] working the operational architectures and designing the systems we'll build to field the network and then we have 12 PEOs (program executive officers) and each of them have a play in this.

"Then we take the technical architecture, the operational architecture and the sustainment piece from Army Materiel Command and we at ASA(ALT) put that together to build a systems architecture," Phillips said. "All these systems, maybe 40, 50, 60 of these systems that we're putting together, that could be inside an MRAP (mine-resistant, ambush-protected vehicle) an M-ATV, Bradley, Abrams or maybe a helicopter."

Capabilities Set 13 has been fielded to four brigade combat teams, Phillips said. The latest iteration of capabilities was gleaned through three Network Integration Evaluations, known as NIEs, conducted in an operationally relevant and punishing environment, he said. More than 115 systems from government and industry were evaluated in the first three NIEs by 3,800 Soldiers from 2nd Brigade, 1st Armored Division, at White Sands Missile Range, N.M.

"The NIE is so important to the Army's ability to get this right and to test it and put it in the hands of Soldiers, and make sure they use it and give feedback," he said. "It's incredibly complex, and incredibly important for us going forward."



Lt. Col. Tim Haley and Deborah Haley move on to Fort Hood, Texas, after notable accomplishments in their work at Natick Soldier Systems Center.

A moveable feast

By Bob Reinert/USAG-Natick Public Affairs / NATICK, Mass. (July 17, 2013)

They grew up on the same block in Seattle, but Lt. Col. Tim Haley and Deborah Haley didn't meet each other until later.

"We moved out of the neighborhood just when she moved in," Haley recalled. "It was kind of an ironic thing."

Over the past 17 years, however, the Haleys have lived in many locations together as Haley moved up through the ranks as an Army officer. Over the past four years, they have made Weston, Mass., their home while they both worked at the Natick Soldier Systems Center.

Haley, a pediatrician, served as clinical director in the Office of Medical Support and Oversight at the U.S. Army Research Institute of Environmental Medicine at NSSC. Deborah was a chef and physical science technician with the Department of Defense Combat Feeding Directorate at Natick Soldier Research, Development and Engineering Center.

On July 17, they packed up their things and drove south to Fort Hood, Texas, where Haley will take over as division surgeon with First Army Division West.

"This is the most difficult separation that I've had," Haley said.

"It's hard to leave here," said Deborah of Natick. "To find a workplace that allows you to grow and challenge yourself is great."

The Haleys had significant accomplishments while at Natick. Tim developed a sensor to detect blast wave overpressure that needs no power source.

"It will capture the energy of the blast wave itself to generate the energy (for) the sensor," Haley said. "That's moving forward."

Haley also worked on a lavage mixture for treatment of acute lung injury.

Both ideas earned patents for the Army.

"I didn't have the expertise to advance them," said Haley, "and I found people (at Natick) who were very capable and enthusiastic about it."

Meanwhile, across the installation at Combat Feeding, Deborah was putting her culinary background to work.

"I got hired as a physical science technician to help with all the different ration platforms -- the group rations and the individual rations,"

Deborah said. "They were great about bringing me in and giving me a lot of exposure to rations and how the testing process works."

Eventually, Deborah became a key part of Combat Feeding's tube food program for U-2 reconnaissance aircraft pilots.

"I never imagined that I'd be doing that at all, but I loved the challenge, and that's what excites me is the challenge," Deborah said. "How can you take something that's so recognizable and turn it into delicious mush?"

Married for 25 years now, the couple applied their shared love of food to volunteer work with the Wayland-Weston Crew, for whom the youngest of their three daughters rowed.

"The new coach really wanted to emphasize sports nutrition," Haley said. "We sort of developed menus for the kids. I think it was a contributor (to the fact) that we had four boats that went to nationals, and one of the boats in which my daughter rowed came in second."

Wherever they go, Deborah will continue her tradition of making custom meals for family members on their birthdays.

"I usually will have it a split plate," said Haley, who favors salmon in mango butter sauce aside rack of lamb. "It's really nice."

The tradition has probably made all the moving around -- along with deployments to Iraq and Afghanistan -- easier to digest for Haley, who knows he has always had other options in the civilian world.

"I stay in because I really love the Army," Haley said. "I just love serving."

Deborah said she has enjoyed serving as a civilian.

"It's been great for me, because I've gotten to go out in the field, and I have a much better idea of what ... Tim experiences," Deborah said. "That's been eye-opening and exciting. I think it increases the bond of understanding."



NSSC This Week

NSSC

Senior Commander

Brig. Gen. Daniel P. Hughes

Garrison Commander

Lt. Col. Brian Greta

Command Sergeant Major

Command Sgt. Maj. Robert Beausoleil

Public Affairs Officer

John Harlow

NSSC Social Media Sites

Facebook <http://bit.ly/5tmSRd>

Flickr <http://bit.ly/7BntsV>

Twitter <http://twitter.com/natickssc>

About this Newsletter

NSSC This Week is a bi-weekly newsletter covering NSSC news within the Army and commercial media.

NSSC This Week is maintained by the USAG-Natick Public Affairs Office.

Layout and design provided by Philip Fujawa, NSRDEC Strategic Communications

To subscribe to NSSC This Week, please contact Bob Reinert at robert.j.reinert.civ@mail.mil.

On the Web: www.army.mil/natick

