

July 2016

# NSSC This Month

U.S. Army Garrison Natick Public Affairs Office



## Veggie Sub?

Natick tests hydroponic farming for Navy



2013 and 2015 U.S. Army Maj. Gen. Keith L. Ware  
Awards - First Place, Digital Publication





# Commander's Corner

Lt. Gen. Kenneth R. Dahl  
IMCOM Commander



# Table of Contents

July 2016

# NSSC This Month

## Embracing the 'Service Culture Initiative'

As you know, the Army faces an environment with fewer resources even while readiness requirements remain constant. Army leadership tasked all major commands to examine requirements, establish clear priorities and reduce funding and manpower. Resources repurposed by this effort will be used to "buy back" critical areas associated with maintaining Army readiness. Therefore, IMCOM can no longer provide the same level of service that our customers have come to expect. We must prioritize and deliver the right services, where the need is greatest, to maximize the value of every dollar we spend.

Together, we must communicate this change to those affected so they understand what is occurring and why. We must actively communicate to manage expectations for both those that provide services, as well as those that receive our services. IMCOM HQs, IMCOM Support Directorates and Regions, and IMCOM Garrison leaders are at the center of this communication effort to ensure both our employees and our customers are fully informed.

We are not asking you to do more with less, or even the same with less; we will do less with less so we can concentrate on the most critical services we deliver. As we transform and fine-tune programs, the manner in which we deliver our services becomes even more important and will demand creativity, initiative and agility of all our IMCOM professionals. We are confident that you will rise to this challenge, as you have in the past, and it is important that your contribution to Army readiness is fully recognized.

In conjunction with these changes, it is vital that we remain focused on our "customers" so IMCOM is embarking on an initiative designed to enhance the level of customer service and inculcate a culture (defined as shared value) of service excellence within all facets of the Command – The Service Culture Initiative. The foundation of this initiative is leader engagement. Leaders must be open, honest and straightforward in communication, especially during periods of change. Through leader and community engagements, all echelons of IMCOM will use every available opportunity to inform and educate our employees, our customers and the communities we serve about the changing environment and how IMCOM will continue to support them.

Built upon the premise that excellence in customer service is a by-product of how you treat your employees, the Service Culture Initiative establishes an environment where employees have engaged and caring leaders, feel valued and respected, possess a sense of belonging or loyalty to the organization, and treat each other with dignity and respect. It is proven that in such an environment, employees are likely to have a positive attitude and enjoy working in the organization. This positive attitude is then "passed forward" to each other and those we support.

This initiative has been under development for more than two years and recent surveys indicate we need it. This is a long-term commitment to improving how we treat our IMCOM team members and improve ourselves as an organization. Soon, we will publish an OPORD with details of the Service Culture Initiative. The key components are:

- a. Enhancing team member sense of belonging to IMCOM.
- b. Ensuring our leaders are engaged with our team members, our customers and the communities they serve.
- c. Ensuring our new team members are appropriately welcomed, oriented, trained and prepared to become an impactful member of the IMCOM Team.
- d. Ensuring our team members feel valued, respected and appreciated.

The Service Culture Initiative is designed to ensure our employees are prepared for and empowered to deliver services in the best possible manner given available resources. The initiative also ensures that those we support understand and acknowledge IMCOM's commitment to serving them and our contribution to Army readiness.

We must always keep in mind that IMCOM's primary mission is to serve and support our Army's Rugged Professionals – those Soldiers who may have to go into harm's way. I look forward to working together as we implement the Service Culture Initiative.

We are the Army's Home – Serving the Rugged Professional.

Sincerely,

Kenneth R. Dahl  
Lieutenant General, U.S. Army  
Commanding



Lt. Gen. Dahl

## NSSC This Month

NSSC  
Senior Mission Commander  
[Brig. Gen. Thomas H. Todd III](#)

Garrison Commander  
[Lt. Col. Ryan Raymond](#)

Command Sergeant Major  
[Command Sgt. Maj. Erika M. Gholar](#)

Public Affairs Officer  
[John Harlow](#)

Editor  
[Bob Reinert](#)

About this newsletter  
NSSC This Month is a monthly newsletter covering NSSC news within the Army and commercial media.

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

To subscribe to NSSC This Month, please contact Bob Reinert at [robert.j.reinert.civ@mail.mil](mailto:robert.j.reinert.civ@mail.mil).

On the Web: [www.army.mil/natick](http://www.army.mil/natick)

Cover photo: U.S. Navy



Photo: U.S. Navy

Cover story:  
Veggie Sub? - p. 8

**NSSC News Briefs.....4**

**Focal Point.....5**

Joint Chiefs vice chairman visits

**Supply excellence.....6**

Mahon earns quartermaster award

**Tamilio joins SES.....7**

NSRDEC director among elite leaders

**Veggie Sub?.....8**

Natick tests hydroponic farming for Navy

**Game Changer.....10**

Natick engineer invents Ballistic Combat Shirt

**Scoring in Transition.....13**

Celtics help veterans prepare for jobs

**Pass the Bar.....14**

NSRDEC energizes 82nd Airborne

**Life-saving Shelter.....18**

Army Medicine acquires airbeam technology developed at Natick



# NSSC News Briefs ...

## ACS Centralized Number

Due to a number of factors, your [Army Community Service](#) is anticipating many changes to come in the next few months. Army Community Service is evolving into a more streamlined, adaptive, responsive and technologically savvy organization to better meet your needs. While many services may change, taking care of Soldiers, civilians and Army families remains a primary focus of the Army, [Installation Management Command](#), and the [Natick Soldier Systems Center](#). In the meantime, you can use the ACS centralized number at ext. 4485.

## Volunteer Opportunity

Join your fellow co-workers at the [Salvation Army's Miracle Kitchen](#) on the third Thursday of every month from 4 p.m. to 7 p.m. You will help prep, cook and serve dinner. The NSSC team has been volunteering in the Miracle Kitchen for more than 25 years. Contact ext. 4006 with any questions, or if you are available to assist.



## Storm Water Management

The Environmental Office would like to remind you that NSSC is regulated under a storm water discharge permit, which means you are not allowed to dump waste of any kind into catch basins. If you observe someone discharging or dumping waste into a storm drain, immediately contact the [Directorate of Emergency Services](#) at ext. 5911.

## Intramural Soccer League

Are you looking for a fun and exciting way to get into soccer? Put a team together and join the league! The league is currently underway and has games every Tuesday and Wednesday starting at 5 p.m. and 6 p.m. All games will be played at the [Navy Yard Field](#) on Washington Avenue in Natick (3-minute drive/parking available). Contact ext. 4791 for more information and to register.



Vigilance begins with YOU. If you witness any suspicious activity or behavior, you are encouraged to call local authorities to make a report. If you are on the installation and you witness anything suspicious, contact the Department of Emergency Services at ext. 5911.

## Domestic Violence Helpline

The new domestic violence 24-hour helpline number is 1-855-827-0400. If you are in a crisis or seeking assistance related to domestic violence, you are encouraged to call the helpline. The helpline will be answered 24 hours a day, and advocacy support will be provided. If you are in immediate danger, please call 911.

## Main Gate Closure

Continuing through Sept. 30, the Main Gate entrance will be closed for construction. During this time: All traffic will enter the installation using the Service Gate located at the end of General Greene Avenue; between the hours of 6 a.m. and 6 p.m., all traffic will exit the installation using the Main Gate; between the hours of 6 p.m. and 6 a.m., all traffic will exit the installation using the Service Gate; weekend entrance and exit will be through the Service Gate. Please direct all questions regarding the entrance/exit plan to the Law Enforcement Desk at ext. 4201.

## Hunter Auditorium

Construction is currently underway and will continue through the end of September. During this time period, Hunter will not be available for use. If you have an upcoming event that requires a large seating capacity, contact [Russ Stokes](#), DPW director, at ext. 4409, to see what space is available for use at that time.



Gen. Paul J. Selva, vice chairman, Joint Chiefs of Staff, visited Natick Soldier Systems Center on June 27. At right, Brig. Gen. Thomas Todd III, NSSC senior commander, describes airdrop equipment; above, Richard Benney shows Selva a Joint Precision Airdrop System; and above right, Don Holman explains the Combat Feeding Directorate's "hydroponic farm."



Photos: David Kamm, NSRDEC Strategic Communications



# Supply Excellence

## NSRDEC's Mahon earns quartermaster award

By Jane Benson, NSRDEC Public Affairs/NATICK, Mass. (July 13, 2016)

For decades, John Mahon – a retired CW4 and a senior airdrop equipment specialist at the [Natick Soldier Research, Development and Engineering Center](#) – has managed to turn a love of jumping out of airplanes into a distinguished career, making an invaluable contribution to the airdrop community and the airborne Soldier.



Mahon

Mahon has worked in airdrop for more than 46 years. In the military he started out as a private

and then worked his way up to E-7 and then to chief warrant officer, CW-4. After retiring from the Army, Mahon began working in various airdrop positions at the Natick Soldier Research, Development and Engineering Center.

“I served for almost 31 years in the military,” said Mahon. “And I started here in 2000, so I’ve been here (NSRDEC) for 16 years this past March. One of the benefits of all this experience is hopefully guiding and mentoring new generations to give them some historical background about what has worked and what hasn’t – and at the same time making recommendations to hopefully ensure success.”

Mahon was recently inducted into the [Quartermaster Hall of Fame](#), one of only five people in the airdrop technical specialty area to earn that honor.

“Without Soldiers supporting my fellow workers and me in my office I would be just another worker bee,” said Mahon. “It’s a great honor to be singled out but really it is the culmination of the work of a whole lot of people.”

“I resisted it actually because I know so many people who in my estimation contributed so much more.”

“We are extremely proud to have John Mahon recognized and inducted into the Quartermaster Hall of Fame,” said Richard Benney, director of the NSRDEC Aerial Delivery Directorate. “John has supported, and continues to support, the warfighter every day with his extensive knowledge and experience related to all aspects of aerial delivery. John’s contributions to the Quartermaster profession, while in uniform and as a civilian at the NSRDEC, are too numerous to list. We are confident that he will continue to make significant contributions and improvements to the Quartermaster and Aerial Delivery community.”

The [Quartermaster Corps](#) is the Army’s oldest logistics branch. Some of its areas of responsibility include general supply, mortuary affairs, subsistence, petroleum and water, material distribution and management, field services and repair, and aerial delivery. The Quartermaster Hall of Fame recognizes retired civilians and retired members of the military who have made significant contributions to the Quartermaster Corps.

The program from the Quartermaster Hall of Fame ceremony, said of Mahon: “This highly decorated veteran of the Vietnam War and Operations Desert Shield and Desert Storm has brought great credit to the Quartermaster Corps throughout his 46 years of total service. His greatest contributions have been in developing aerial delivery capabilities, training air drop techniques to the U.S. Army Parachute Riggers and developing Quartermaster leaders for our Army.

CW4 Mahon was assigned to the legendary ‘Screaming Eagles’ of the 101st Airborne Division in Phu Bai, Republic of Vietnam, where his primary role was aerial delivery resupply and sling load operations. He spent time with the 1st Special Forces Group in Okinawa, Japan, and the 10th Special

Forces Group in Bad Tolz, Germany. In 2006, Mr. Mahon deployed to Operation Enduring Freedom in Afghanistan to provide technical supervision of the Low Cost/Low Altitude airdrop resupply system, a relatively new concept in cargo airdrop resupply. He flew 10 operational missions during his time in country and now has over 46 years on jump status with over 1100 parachute jumps.”

Mahon served for five years in the 82nd Airborne and was an instructor at Fort Lee. He was also a test jumper for C-17 and C-130J aircraft.

“Based on my experience and operational background, I do a lot of special project work,” said Mahon. “I also provide technical assistance to outside agencies. I assist the engineers with their quality assurance work. I do technical data package modifications as needed. I analyze quality deficiency issues with equipment that’s been fielded to operational units. And I field a lot of questions from the field.”

He also helps bridge communication between engineers and operational users in order to devise and communicate resolutions to problems, based on the knowledge of both groups.

“In the 13 years I’ve worked with John, I’ve found him to be consistent and tireless in his dedication to ensure that we have safe and reliable equipment for our Soldiers,” said Christine Charette, a textile technologist (parachutes) on NSRDEC’s Aerial Delivery Engineering Support Team, or ADEST. “But he doesn’t stop there, he holds each of his ADEST coworkers to the same standards, ensuring a high bar for the whole team. He spends a huge amount of time mentoring civilian subject matter experts on ADEST to help us understand the real-world perspective of the Soldiers that use the equipment we work with.

“I could have great lab-based data or what I would consider a well-thought-out theory, but after discussing it with John I’d likely come away with a new way of looking at the problem or a more complete resolution.”

“The one thing about jumping out of airplanes is that gravity always works,” said Mahon. “Gravity always wins. So, if you are going to tempt gravity, you better have a good parachute.”

“I’m glad John is getting some spotlight,” said Charette. “We are lucky to have him. There are few people that have the experience and knowledge to be a clear litmus test for whether or not you have a good idea or solution to a problem. John is one of those people. If you can’t get a thumbs up from him, you know that you better go back and do some more thinking.”

After decades of working with parachutes, what is still Mahon’s favorite part of his job?

“Jumping out of airplanes,” said Mahon. “It was one of the main reasons I joined the military in 1969. I was extremely fortunate to find a job after my military career that continues to allow me to do that.

“I don’t get to jump as often as I like but I still jump three or four times a year.”

“Working with someone like John, with his extensive experience in all things relating to Army parachutes, is invaluable to a civilian subject matter expert like me,” said Charette. “Honestly, the man lives and breathes parachutes, and I am not at all surprised that he is now in the Fort Lee Hall of Fame, in addition to the Rigger Hall of Fame.”

“When I jump I am having as much fun in 2016 as I was having in 1969,” said Mahon. “Every jump is different. You have to be aware. I’ve been very fortunate. I’ve had no major jump incidents.

“But that experience, and having lived those scenarios, is invaluable to the work that we do and for understanding deployments. It reinforces the idea that we need to make sure the equipment we make is safe, reliable and capable.”



Maj. Gen. John F. Wharton, RDECOM commander, congratulates Douglas A. Tamilio, who became NSRDEC's new director in a July 26 ceremony on the steps of the NSSC headquarters building.

## Tamilio joins SES

### NSRDEC director among elite leaders

By Jane Benson, NSRDEC Public Affairs/NATICK, Mass. (July 26, 2016)

Douglas A. Tamilio – director of the [Natick Soldier Research, Development and Engineering Center](#), or NSRDEC – has been inducted into the [Senior Executive Service](#).

[Maj. Gen. John F. Wharton](#), commanding general of the [Research, Development and Engineering Command](#), hosted the ceremony and administered the oath of office to Tamilio. The ceremony, held at NSRDEC, paid tribute to Tamilio on the occasion of his SES appointment and also recognized his official assumption of responsibility for the NSRDEC. Tamilio became permanent director of NSRDEC in June.

By becoming an SES, Tamilio joins an elite group of men and women chosen for their leadership qualifications and tasked with leading the ongoing transformation of the government.

During the ceremony, Wharton noted that Tamilio’s appointment was long overdue and called NSRDEC a national resource that improves the quality of life for all services, as well as the nation’s first responders.

As NSRDEC director, Tamilio is responsible for planning, programming, coordinating and executing the research, development and engineering program, which is dedicated to the sustainment and protection of the nation’s combat forces from the stresses of war through functionally suitable food, clothing, airborne and airdrop equipment, tactical shelters, and organizational personal equipment. NSRDEC delivers world-class research, development, systems engineering and services, with a unique “Soldier”-centric focus.

Wharton noted that Tamilio has worked very hard on the human dimension aspect of Soldier-centered research and on optimizing human performance.

“First, I’d like to thank Major General Wharton for presiding over today’s ceremony,” said Tamilio. “Sir, I can’t think of any other senior leader that truly appreciates and understands the importance of optimizing a Soldier’s performance.”

Tamilio also thanked NSRDEC’s partners and stakeholders that help NSRDEC carry out its work for the warfighter. He gave special thanks to his wife and children for their support.



# Veggie Sub?

## Natick tests hydroponic farming for Navy

By Bob Reinert, USAG Natick Public Affairs/NATICK, Mass. (July 20, 2016)

If Don Holman has his way, the Navy could soon be producing its own vegetarian subs, so to speak.

Holman, an engineering technician with the Joint Foodservice and Engineering Team at the [Natick Soldier Research, Development and Engineering Center's Combat Feeding Directorate](#), has spent the past year testing the feasibility of growing fruits and vegetables on U.S. warships. His "hydroponic farm," which uses nutrient enriched water, and no soil, resides in a 40-by-8-foot repurposed refrigerated shipping container behind Combat Feeding.

The climate-controlled space is illuminated with LED lights to make it a 24-hour operation that simulates daytime and nighttime conditions and accelerates plant growth. In the first phase of testing, Holman grew dozens of different plants.

"We tested 83 different varieties of plants, including vegetables and fruits – everything from strawberries to zucchini, beans and rhubarb – a little bit of everything," Holman said. "About 51 of those 83 that we tried grew well in hydroponic conditions. The whole concept was to grow a salad for the submariners."

Leafy green vegetables did particularly well, but plants requiring more sun and heat, such as tomatoes, struggled.

"It does grow root vegetables pretty well other than they come out a little bit smaller, shorter, because of the way that they grow," said Holman, mentioning carrots and radishes.

Holman must issue a technical report by September for the [Naval Undersea Warfare Center](#) and the [Navy Supply Systems Command](#) that will help those organizations decide what, if any, fresh produce can be successfully grown at sea. Holman, who grew up on a Michigan farm and spent 30 years in the Navy, fully understands how fresh food can boost the morale of Sailors on long deployments.

"That's what the Sailors want. That's what they ask for," Holman said. "Whenever you have a happy Sailor, you have a productive Sailor."

Several weeks into the second phase of testing, Holman is studying the yields of plants that fared well initially to see if subs can produce a sufficient amount to sustain their crews.



According to Holman, the hydroponic farm has performed well over the past year.

"We've made modifications to the farm itself," Holman said. "We've made small changes just to kind of tweak things, (make it) operate better for us."

Based on what he's observed, the former Sailor said he thinks it's feasible to grow fruit and vegetables on a submarine.

"The No. 1 hurdle that they're going to have is space," Holman said. "Obviously, they're not putting this particular container on a submarine. They're going to have to identify a space and design a farm to fit in it."

Planting seeds before a deployment would be best, Holman added.

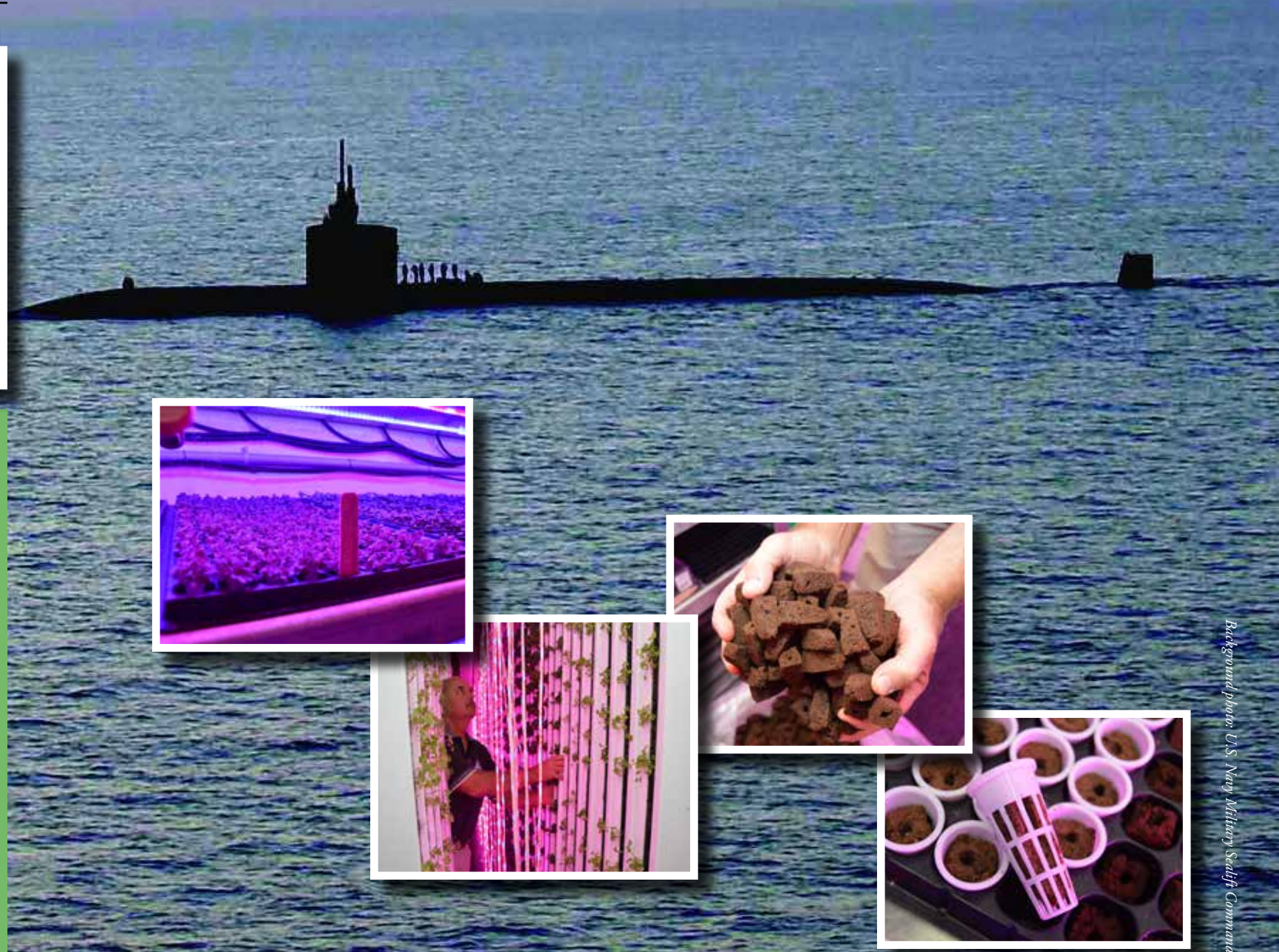
"That would make great sense because it takes nine weeks to get to a (lettuce) harvest," Holman said. "So, if they started nine weeks prior to casting off, they would be able to have salads right away on through their entire deployment."

Does Holman see farming in the Navy's future?

"I would hope so," Holman said. "I think this makes a lot of sense for the Navy, but also for the Army and the Marine Corps in the field."

"The No. 1 hurdle that they're going to have is space. Obviously, they're not putting this particular container on a submarine. They're going to have to identify a space and design a farm to fit in it."

Don Holman, Combat Feeding



Inset photos: Tizanyia L. Mouton, USAG Natick Public Affairs

Background photo: U.S. Navy Military Sealift Command





Natick's Robert DiLalla took a game-changing approach to develop the Ballistic Combat Shirt (pictured here under other protective gear). DiLalla focused on meeting the high-performance athletic needs of the warfighter, resulting in a lighter-weight, less-bulky form of protection that doesn't hinder movement. DiLalla was chosen as the recipient of the FY2015 Maj. Gen. Harold "Harry" J. Greene Award for Innovation in the Individual – Civilian Award Category.

# Game Changer

## Natick engineer invents Ballistic Combat Shirt

By Jane Benson, NSRDEC Public Affairs/NATICK, Mass. (July 19, 2016)

**W**hen Robert DiLalla – an engineer and currently the team leader of the Infantry Combat Equipment Team at the [Natick Soldier Research, Development and Engineering Center](#) – set out to develop a new design for Soldier protection, he knew he had to break the mold. The result of his revolutionary approach, which focuses on the Soldier as an athlete, is the game-changing, Ballistic Combat Shirt.

"We set out, with this science and technology effort, to meet the needs of high-performance athletes, which is what Soldiers are," said DiLalla. "In my effort, I was really focused on the human. How can we do something that, without sacrificing protection, makes them feel like they are not wearing protection and improves their ability to do Soldier tasks?"

DiLalla has been chosen as the recipient of the FY2015 Maj. Gen. Harold "Harry" J. Greene Award for Innovation in the Individual – Civilian Award Category. Greene was killed in Afghanistan in 2014 and had served as senior commander at the [Natick Soldier Systems Center](#) – where he was revered as a Soldier, scientist and commander – from August 2009 to May 2011.

The award recognizes innovative technologies provided by the research and development/science and technology communities, as well as Soldiers in the field. The award acknowledges contributions that greatly enhance the Army's overall readiness, while positively impacting Soldier performance.

"I am extremely pleased that Rob and his team were recognized with this prestigious award for their work on the Ballistic Combat Shirt," said Douglas A. Tamilio, director, NSRDEC. "This capability significantly increases the protection and flexibility of our personal protective ensemble, ensuring we are giving our Soldiers the edge they need."

DiLalla partnered with co-inventors Protect the Force, LLC, a South Boston firm with ties to the athletic apparel industry, to bring his solution to life.

"We needed to stop and reassess how we wear body armor," said DiLalla. "At the same time, we needed to improve integration, reduce complexity and improve Soldier performance."

The invention is a departure from the [Interceptor Body Armor](#), or IBA, system, which was a great advance when it was developed by NSRDEC for the [Marine Corps](#) in the late 1990s. Over the years, however, the IBA has increased in complexity and bulk. As additional components were added, it became difficult for Soldiers to put it on. In contrast, the Ballistic Combat Shirt is easy to don.

"So now instead of having to attach all of these components, you can throw it on like a goalie shirt in hockey," said DiLalla. "It goes on and you don't need a buddy to help you don the system. It's form-fitting so the Soldiers like it. Instead of one panel, the deltoid section is three panels. It's contoured so it stays with you. It moves with you. It has an improved range of motion over the IBA."

The Ballistic Combat Shirt is an integrated armor shirt that provides deltoid and thoracic protection, as well as improved neck protection.

"I think it benefits Soldiers in a couple of ways," said DiLalla. "It provides protection, but it also enables them to do their missions better by giving them more range of motion, better articulation. At the same time, it's not complicated. They don't need to pull out a user manual. It's one shirt."

The shirt weighs less than the current IBA components it replaces and is less bulky.

"The biggest thing is that we reduced bulk," said DiLalla. "Our goal was to get it contoured, form-fitting, so that the Soldier can do his job without feeling like the equipment is hindering movement. We successfully created a product that integrated five components into one, and we were able to reduce weight by 35 percent. It's lighter, form-fitting and more comfortable. It allows Soldiers to feel like they are wearing regular shirts without sacrificing protection."

NSRDEC also worked with [U.S. Army Research Institute of Environmental Medicine](#), USARIEM, at Natick to ensure the new shirt didn't increase the Soldier's thermal burden when compared to the IBA.

"We did not want a close-to-skin shirt that can make you hot," said DiLalla. "There was a concern that it would trap body heat more than the current system, but what we found is that it is actually equal to, or in a few instances better than, the baseline."

The invention has been a hit with users.

"The Soldiers have spoken loud and clear with more than 90-percent user acceptance in multiple user evaluations," said DiLalla. "Typically, as we assess new body armor components, we'd consider 60 percent a successful number so we were quiet surprised by how well the BCS rated."

The technology is also applicable to the needs of law enforcement.

"There are huge technology transfer possibilities," said DiLalla. "Protect the Force is already commercializing the product to better serve the law enforcement community. I feel extremely proud that not only are we better able to protect Soldiers and other members of the military, but we can also better protect members of law enforcement domestically and abroad."

"As a Soldier and the team's commanding general, I can't praise Rob DiLalla's achievement highly enough," said [Maj. Gen. John F. Wharton](#), commanding general of the [U.S. Army Research, Development and Engineering Command](#). "It really





During a visit to Natick Soldier Systems Center, Massachusetts Gov. Charlie Baker examines the Ballistic Combat Shirt while listening to Brig. Gen. William Cole, then NSSC senior commander. Rob DiLalla of NSRDEC is at left.

Photo: David Kamm, NSRDEC Strategic Communications

demonstrates how Army researchers are committed to developing cutting-edge capabilities for the joint warfighter.

"There's a bigger story beyond that, however, about how the command's partnerships with other organizations and connections to the warfighter positioned the team and gave them the reach into the greater science and technology ecosystem to make this innovation possible. It will also be key to transferring the benefits of this great new technology to first responders in support of the entire nation."

The idea, like most true innovations, was first met with some resistance.

"You need to be responsible, but sometimes you need to take a risk to make progress," said DiLalla. "We needed to start clean and get rid of purely linear thinking, and I think some folks had a hard time grasping the concept."

DiLalla feels very humbled by being chosen for the FY2015 Maj. Gen. Harold "Harry" J. Greene Award for

**"We set out, with this science and technology effort, to meet the needs of high-performance athletes, which is what Soldiers are. In my effort, I was really focused on the human. How can we do something that, without sacrificing protection, makes them feel like they are not wearing protection and improves their ability to do Soldier tasks?"**

Robert DiLalla, NSRDEC

Innovation in the Individual – Civilian Award Category.

"It's been a long, tough road," said DiLalla. "We in the NSRDEC are very proud of what's transpired. I've been a tinkerer my whole life. I'm an engineer by degree, and I've always been a product person. I set out to do something novel, revolutionary, with the goal of improving Soldier performance. It's been an incredible experience."

On the way to seeing his innovative idea come to fruition, DiLalla became a team leader at NSRDEC. He wants to instill this spirit of innovation in his team members.

"To create something revolutionary is hard work, but more importantly you have to believe you can do it," said DiLalla. "My goal now, as a team leader, is to mentor the great minds on my team to be creative and think out of the box and not to be purely formulaic. They need to feel empowered because they are absolutely capable of inventing the next great thing."



Military and career advisors sit with a student from Southern New Hampshire University during the Boston Celtics-SNHU program, "Scoring in Transition." During the program, a resume workshop was offered to the students in preparation for a career fair event.

Photo: Brian Robinson, Boston Celtics

# 'Scoring in Transition'

## Celtics help veterans prepare for jobs

By Tazanyia L. Mouton, USAG Natick Public Affairs/NATICK, Mass. (July 20, 2016)

Last season, the [Boston Celtics](#) teamed up with [Southern New Hampshire University](#) for a community program focused on supporting veterans as they transition between the military and civilian life.

"Scoring in Transition" began with a series of events involving Celtics' VIPs and veterans working side-by-side to learn career preparation skills such as resume writing, job search tips and interview training.

The [Department of Veterans Affairs'](#) National Center for Veterans Analysis and Statistics states that Massachusetts has nearly 368,000 veterans, of which, 4.4 percent were unemployed as of July 2015, according to [Labor and Workforce Development](#).

While the unemployment percentage for veterans dropped by more than a half point in 2015, non-veteran unemployment dropped by nearly double that.

In 2014, the national veteran unemployment rate was 5.3 percent, down from 7.2 percent in 2013. Although the veteran unemployment rate continues to drop, it still outpaces the rest of the United States.

Each year, the military separates between 240,000 to 360,000 service members, according to a White House report from 2013.

More veterans are getting hired now due to a national focus on hiring our nation's heroes, and with this in mind, the Celtics' staff wanted to help.

"For veterans and civilians, it takes a wide range of professional-development experiences to prepare for the job market," said Sam Taub of the Celtics' community relations department. "Our approach was to provide education in three main areas we believed would be the most important to master in preparation for the career fair."

To promote the courses and increase the likelihood that students would retain the information, Taub said they integrated fun activities into each class.

"For example, our resume workshop concluded with B-I-N-G-O for Celtics prizes, our interview training was held at the arena before a Celtics' game, and our employment readiness presentation was followed by bowling," Taub said.

Taub said beyond professional-development experiences for veterans, the event served as a unique platform to display the military assets veterans bring to the private sector.

"We were tremendously pleased with the outcome of the 'Scoring in Transition' hiring event," said Taub. "Six of our corporate partners participated in the event, conducting a total of 43 interviews with 23 local military veterans from SNHU."

Taub said more importantly, the interviews led to follow-up conversations, meetings and job offers between employers and prospective employees.

Phase three of the "Scoring in Transition" program will include a basketball tournament between SNHU's military students and local service members and a back-to-school celebration set for early fall.

"We are grateful to work with SNHU and leverage their transition expertise for 'Scoring in Transition,'" said Taub. "We are excited by the progress we've made thus far and look forward to expanding the reach of this program next season."





An assistant jumpmaster from the 82nd Airborne Division gives the all clear sign over Sicily Drop Zone on Fort Bragg, N.C., while participating in the St. Michaels jump April 27. 82nd Airborne Division Chaplains hosted this jump as a way to better connect with their paratroopers along with a team building exercise session.

# Pass the Bar

## NSRDEC energizes 82nd Airborne

By Jane Benson, NSRDEC Public Affairs/NATICK, Mass. (July 27, 2016)

Scientists at the [Natick Soldier Research, Development and Engineering Center's Combat Feeding Directorate](#), or CFD, jumped at the chance to develop a nutrition bar based on identified paratrooper needs.

The nation's paratroopers have extremely demanding jobs, making proper nutrition and maintaining energy levels key to their performance and safety. Keeping paratroopers properly nourished is especially challenging during long flights, where the wait time between meals can be several hours.

NSRDEC's CFD worked with the [82nd Airborne Division](#) to solve this problem. CFD's interaction is part of a larger effort by several organizations in NSRDEC to partner with the 82nd to develop products and solutions that better meet Soldier needs.

The result of NSRDEC CFD's partnering with the 82nd is a "Paratrooper Bar" that is nutritious, provides energy, and is easy to carry and easy to eat.

While partnering with the 82nd earlier this year, NSRDEC's Cognitive Science Team had noticed that paratroopers weren't eating during an extended period of time, as it was a policy that Soldiers could not eat after being fitted with the parachute rigging. The Cognitive Science Team then hypothesized that paratroopers' performance might improve if they were able to get some nutrition during this time.

The [U.S. Army Research Institute of Environmental Medicine](#), or USARIEM, at Natick then recommended a nutritional profile, and CFD developed a nutrition bar to meet those requirements, focusing on carbohydrates and caffeine.

"We go out and conduct field tests every year and we interact and receive anecdotal information about needs," said Dr. Jeannette Kennedy, CFD technical adviser. "But this particular partnering with a unit is on a much deeper level. The missions of the 82nd are demanding and somewhat unique in terms of their timeline and requirements."

"If they are rigged three or four hours before their jump, per their standard operating procedure, they were not allowed to eat anything because of concerns related to the integrity of the parachute and the harness system, specifically, about dirty fingers or food waste or things being spilled," said Jeremy Whitsitt, deputy director, CFD. "They didn't want anything to affect the integrity of the parachute."

"As material developers, we identified that a beverage was not going to work," said Kennedy. "The item had to meet very specific requirements, including ease of con-

sumption during turbulence. One solution was a nutrition bar that they can store in their left arm pocket."

NSRDEC CFD's direct partnering with a unit helped aid the process.

"We've always been active in engaging with the Soldier," said Whitsitt. "But partnering – having them be able to come to us and us go to them – has been a good model."

"Partnering helps us find out what their needs are and can help us with future research efforts," said Kennedy. "Understanding context can help us guide research and to meet an identified need."



CFD researchers have been creating nutrition bars for years based on specific needs, so they were able to create the Paratrooper Bar fairly quickly. The bar also has the potential to be applied to other situations and jobs, especially since it is easy to carry, easy to eat, and provides energy.

"When something like this comes along, you are able to see a direct connection between what you do and improving Soldier quality of life on the battlefield," said Whitsitt. "It gives you perspective – this is why I'm doing what I do."

"We needed to develop a product that would sustain the readiness of the paratrooper while en route to the drop zone," said Lt. Col. Peter L. Gilbert, commander, 307th Brigade Support Battalion, 1st Brigade Combat Team, 82nd Airborne Division. "And to do that, we partnered with Combat Feeding Directorate at Natick."

The bar was recently used by the 82nd during a trans-Atlantic exercise.

"[Exercise Swift Response 2016](#) is one of the premier military-crisis-response training events for multinational airborne forces in the world," said Gilbert. "The exercise included more than 5,000 participants from 10 NATO nations and took place at locations in Poland and Germany. Swift Response 16 was a joint, multinational U.S. Army/U.S. Air Force exercise designed to train the U.S. Global Response Force – led by the Army's 82nd Airborne Division. Swift Response 16 will evaluate the readiness of the core ground component of the U.S. Army's Global Response Force."

"Operation Anakonda effectively demonstrated the strategic reach of the Global Response Force as an operationally significant force," said Lt. Col. Patrick M. Roddy Jr., commander, 1st Battalion, 504th Parachute Infantry Regiment, 1st Brigade Combat Team, 82nd Airborne Division. "It was a logistically daunting task, deploying from [Fort Bragg](#), North Carolina, with limited notice, to landing on the drop zone





Photo: Lt. Col. Peter L. Gilbert, 82nd Airborne Division

## “The Paratrooper Bar is tied directly to the Chief of Staff of the Army’s number one priority – readiness.”

*Lt. Col. Peter L. Gilbert, 82nd Airborne Division*

in Poland ready to fight – just getting there was a complex and physically challenging task. By the time our paratroopers hit the drop zone, most had been awake for up to 30 hours. In that time they alerted, marshalled, planned, conducted sustained airborne training, loaded a tight aircraft, and stood to jump with over 100 pounds of equipment, in most cases.”

“After consuming the Paratrooper Bar during the 11-hour Trans-Atlantic Airborne Joint Forcible Entry Operation into Torun, Poland, our Soldiers were alert and able to remain at peak levels of readiness, not only during the jump into a contested operational environment, but the rigorous follow-on ground operation,” said Gilbert.

“Hydration and nutritional preparation of our paratroopers was decisive to our readiness to fight and win on the drop zone,” said Roddy. “Our brigade’s paratrooper nutrition initiatives are changing the ethos of how we view feeding. We are teaching our paratroopers to view nutrition as a tailored fueling process for tactical athletes. The in-flight meals and Paratrooper Bars really helped us to have the right energy levels and edge we needed to be effective the moment we hit the ground. The best feeding initiative I’ve seen for airborne operations in 17 years of service.”

“The Paratrooper Bar is tied directly to the Chief of Staff of the Army’s number one priority – readiness,” said Gilbert. “We must ensure our paratroopers remain at peak

levels of readiness during large-scale airborne operations, and the development and employment of the Paratrooper Bar does exactly that.”

Gilbert believes that partnering with NSRDEC is truly helping with communication and better meeting Soldier needs.

“Working with Jeannette has been great,” said Gilbert. “We can’t thank Natick and the Combat Feeding Directorate enough for their interface and for connecting with the paratrooper, understanding his or her requirements, and then taking those requirements and putting them into a tangible product.”

NSRDEC’s work with the 82nd is part of an all-encompassing science and technology effort called the S&T Project Integration Pilot, which is part of the Soldier and Squad Performance Optimization, or S2PO, initiative.

“The customer intimacy is so important,” said Rick Haddad, NSRDEC S2PO Program Integration lead. “Partnering gives us a chance to see the Soldier’s challenges firsthand. It’s important to increase intimacy with the warfighters who use our products so we can better meet their needs. The big, overarching message here, and not just for Combat Feeding, is that being embedded in a unit and having a partnership allows us to come up with solutions much faster. Sometimes, we never would have known that there were these opportunities for these quick wins if we weren’t at the unit level.”



# Life-saving Shelter

## Army Medicine acquires airbeam technology developed at Natick

By Ellen Crown, USAMMA Public Affairs and Carey Phillips, USAMMDA Public Affairs (June 22, 2016)



If you are in the Army, there is a very good chance you have worked and lived in a tent.

Army tents are a way of life in the field, used for living quarters, work space and even dining facilities. In [Army Medicine](#), tents are also used to construct aid stations and field hospitals, providing wounded and injured service members a place to receive immediate and often life-saving medical care.

For decades, the tents used to configure these medical facilities were TEMPER (Tent, Extendable, Modular, Personnel) rigid frame tents. While the tents did the job, they were heavy and cumbersome to set up. Additionally, a 2011-2014 study conducted by the [U.S. Army Natick Soldier Research, Development and Engineering Center](#) demonstrated that 54 percent of tested TEMPER lots – many of which had far exceeded their originally designed lifespan – no longer met flame resistance requirements. The [U.S. Army Medical Materiel Development Activity](#)-funded study led to the [Tank-automotive & Armaments Command \(TACOM\) Life Cycle Management Command](#) issuing a ground precautionary action message in 2014, to notify units of the safety issue with those TEMPER tent lot numbers.

"Shelters have built into them a flame resistance requirement," said Jaime Lee, product manager for Medical Support Systems Project Management Office at USAMMDA. "It needs to be able to not catch on fire easily and self-

extinguish quickly. Since our shelters are so old, a majority of them no longer pass this test and it can create a serious safety concern."

Army Medicine needed new medical tents – but not necessarily new versions of the same old tents.

The [U.S. Army Medical Materiel Agency](#) and USAMMDA, both subordinate organizations of the [U.S. Army Medical Research and Materiel Command](#), teamed up to purchase new TEMPER air-supported shelters. These shelters were developed by USAMMDA over the past decade to replace aging rigid frame shelters. The TEMPER air-supported shelters are 50 percent lighter than the old tents, saving units 17 tons for each 148-bed field hospital. The air-supported shelters can be erected by four Soldiers in about 15-30 minutes, which is 85 percent quicker than the older medical tents that can take more than an hour to set up. In addition, new solar shades that reduce solar loading by 90 percent along with thermal liners are being purchased with these air-supported shelters, which will impact energy efficiency and comfort levels inside the shelter.

Another benefit of the air-supported shelters is that they have a longer operational lifespan than the older tents. The air-supported shelters are projected to last at least 15 years – five years longer than the older tents – which will ultimately cost the Army less in long-term maintenance and replacement costs.

Some Soldiers may have already seen or used air-supported shelters. During Operation Iraqi Freedom and Operation Enduring Freedom, [Product Manager \(PM\) Force Sustainment Systems](#) deployed air-supported shelters to replace their aging framed tents used for rest and relaxation requirements.

USAMMA and USAMMDA are working through the Defense Logistics Agency to purchase and field the tents, which should start arriving to units in late 2017. Among the first units to receive the tents will be the Army Prepositioned Stock and stateside-based field hospitals.

According to Lee, USAMMA and USAMMDA also worked very closely with U.S. Army Natick Soldier RD&E Center; Capability Developments Integration Directorate of the U.S. Army Medical Department Center and School, Fort Sam Houston, Texas; PM Force Sustainment Systems, Natick, Massachusetts; Combined Arms Support Command, Fort Lee, Virginia.; USAMRMC headquarters; Office of the Surgeon General; and the HDT Global contracting office to accomplish this feat.

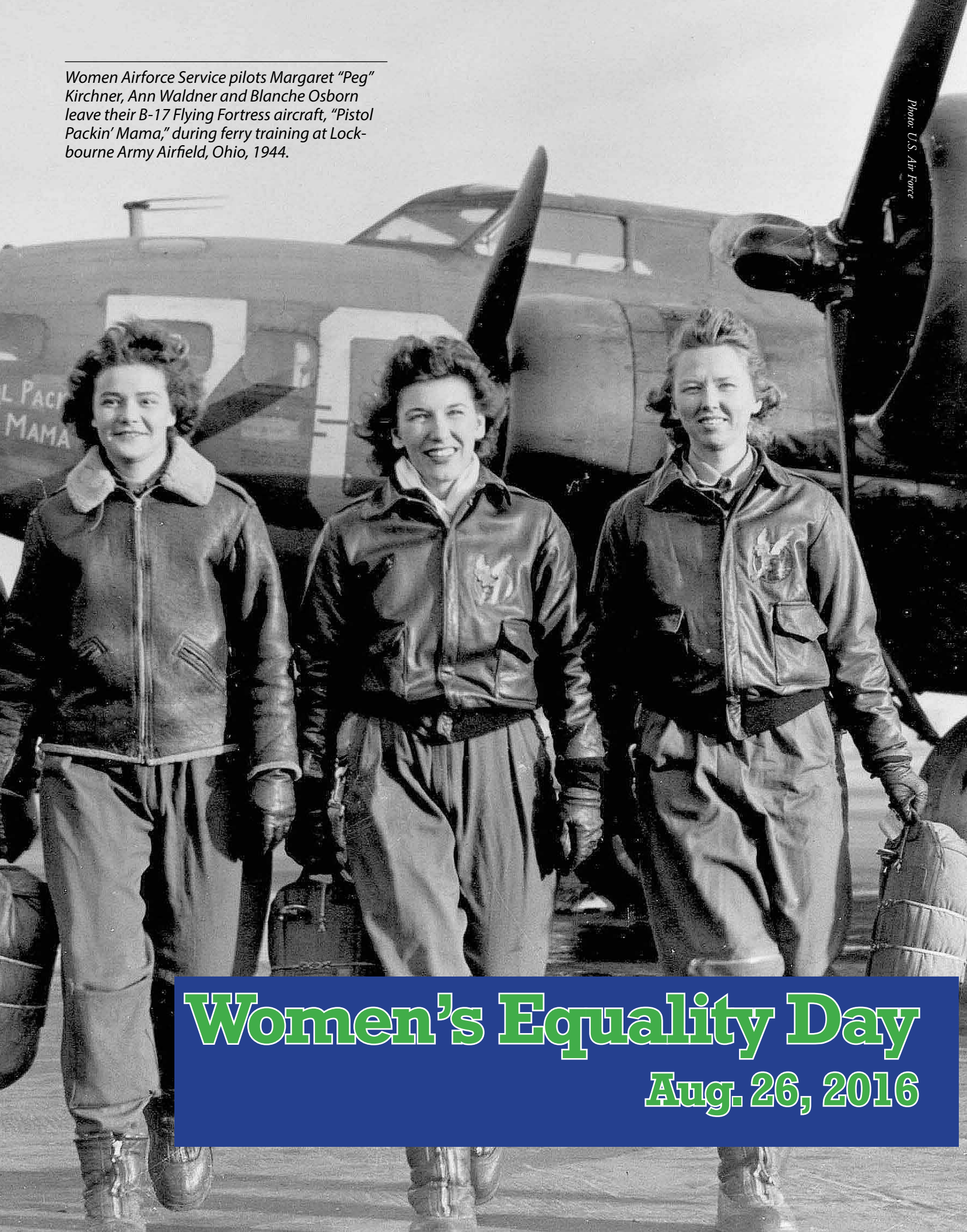
"Whether supporting early entry operations or while sustaining ongoing missions, every pound and every cubic foot counts," said Col. David Gibson, USAMMA commander. "Fielding equipment and materiel that is lighter, smaller, or more easily sustained is the key to simplifying and improving support on the battlefield."



Photos: U.S. Army



Women Airforce Service pilots Margaret "Peg" Kirchner, Ann Waldner and Blanche Osborn leave their B-17 Flying Fortress aircraft, "Pistol Packin' Mama," during ferry training at Lockbourne Army Airfield, Ohio, 1944.



**Women's Equality Day**  
**Aug. 26, 2016**