December 2016

NSSC This Month

U.S. Army Garrison Natick Public Affairs Office

Top 5 Stories of 2016

- On Ice
- Jumpin' Jennifer
- Peak Season
- The Right Stuff?
- Seeing is Believing

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

NAGC 2016 National Association of
Government Communicators
First Place, External Newsletter

Commander's Corner

Lt. Col. Ryan Raymond
USAG Natick Garrison Commander

Collective Accomplishments

The holiday season is upon us, and regardless of faith, the season offers a chance to spend time with your families and reflect on the transition from one year to the next; celebrating accomplishments and planning for new opportunities.

I had a great time at the NSSC Holiday Party, and I hope you did, as well.

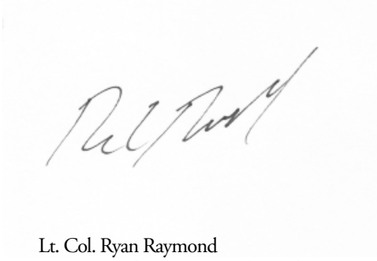
As I look back on 2016, I am proud of our collective accomplishments. The upgrades to Hunter Auditorium, the new front gate and the continuing window project are big highlights of what we have done to help make the quality of your work environment better. The reduction and consolidation of containers has made a visible difference in the appearance of the installation. In 2017, you will see upgrades to the facades of some of our buildings and room by room, floor by floor, you will see small improvements to make NSSC a better place to work.

This issue of *NSSC This Month* looks back at 2016 with the top-five stories picked by the Public Affairs staff. Also, Brig. Gen. Thomas H. Todd III and Command Sgt. Maj. Erika M. Gholar look back at their time here at Natick.

We will be starting 2017 at full speed with the Change of Senior Commander ceremony where Brig. Gen. Anthony Potts will take over leadership of NSSC from Brig. Gen. Todd and a Change of Responsibility ceremony where Command Sgt. Maj. Michael Pintagro will assume responsibility as the garrison command sergeant major from Command Sgt. Maj. Gholar.

I want to thank you for all you accomplished on behalf of our Soldiers in 2016. Enjoy time with friends and family, please be safe, and I am looking forward to all the great things we will do together in 2017.

We are One Team committed to Soldier success.



Lt. Col. Ryan Raymond
USAG Natick Garrison Commander

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

On the Web: www.army.mil/natick

Cover photo: Spc. Steven Hitchcock, U.S. Army

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NSSC News Briefs ...

Self-Defense Class for Women

Each Wednesday, between Jan. 25 and Feb. 15, 2017, the Natick Police Department will facilitate Rape Aggression Defense (RAD) training at the Lord Community Center (Bldg. 32) from 4:30 to 7:30 p.m. There is no cost for this class, and participants are asked to attend all four sessions. To register or request more information, contact Susan Baldwin at ext. 6925, or susan.o.baldwin.civ@mail.mil, by Jan. 4.

Financial Readiness Courses

Financial fitness is right at your fingertips with new training for service members and their families. A series of five online training courses about money management is available covering the topics of consumer credit, developing your spending plan, and more. Visit the Military OneSource My Training Hub today at https://myhub.militaryonesource.mil/.

Hanscom Patient Handbook

A limited number of patient handbooks are available for active or retired service members and their families who receive medical treatment at the Hanscom AFB Medical Clinic. Please stop by ACS in Building 1, Room A-122, for a copy courtesy of the Natick ACS Information and Referral Program.

Financial Counseling Session

A Military Family Life Consultant Financial Planner will be at Army Community Service on Tuesday, Jan. 10, offering a 45-minute financial counseling session to address establishing or improving credit, home buying, budgeting for specific big events, retirement planning, making the most of your TSP, and basic investment advice. Please contact Diane Magrane at diane.k.magrane.civ@mail.mil to set up an appointment.

Overseas/PCS Assistance

ACS offers one-on-one briefing appointments for overseas relocation or other Permanent Change of Station (PCS) moves. Gain information on what you need to know about living overseas, or let us help you connect with your next duty station with welcome packets and other online resources. Briefings are available for both military and DoD civilians anticipating a PCS move. For an appointment, please contact Diane Magrane at diane.k.magrane.civ@mail.mil.

Garrison Spotlight

Tim O'Driscoll

What Tim does:

"I am the Information Management Officer and the garrison's representative for Information Technology including user support, policies and procedures."

PAIO Chief Lynn Valcourt on Tim:

"Tim has quickly become an integral part of the garrison team. As a 21-year Air Force veteran, Tim is excited to be working with the Army, especially here at Natick where he has seen so many benefits improve the lives of personnel across all Department of Defense components. As our representative to the Network Enterprise Center, he is vital to ensuring our capabilities remain intact. As Tim is always looking for ways to improve, he recently upgraded the garrison's conference room with video teleconference capabilities, consolidated excess garrison IT property, and revised issues with phone invoices. Tim is a great asset to our organization, and I look forward to us leveraging his abilities even more in the future."

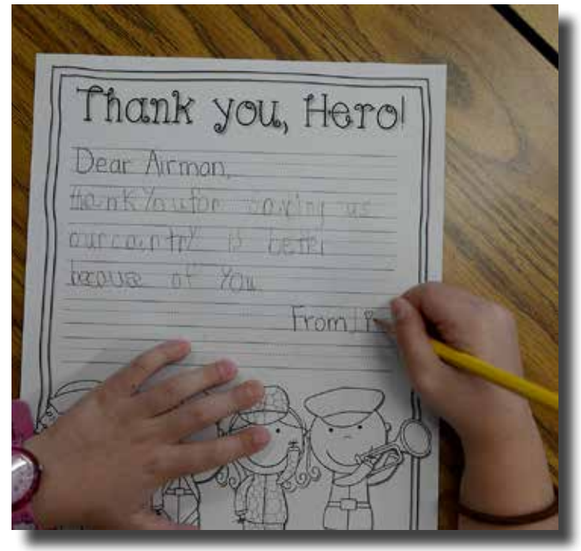
Civilian Wellness Program

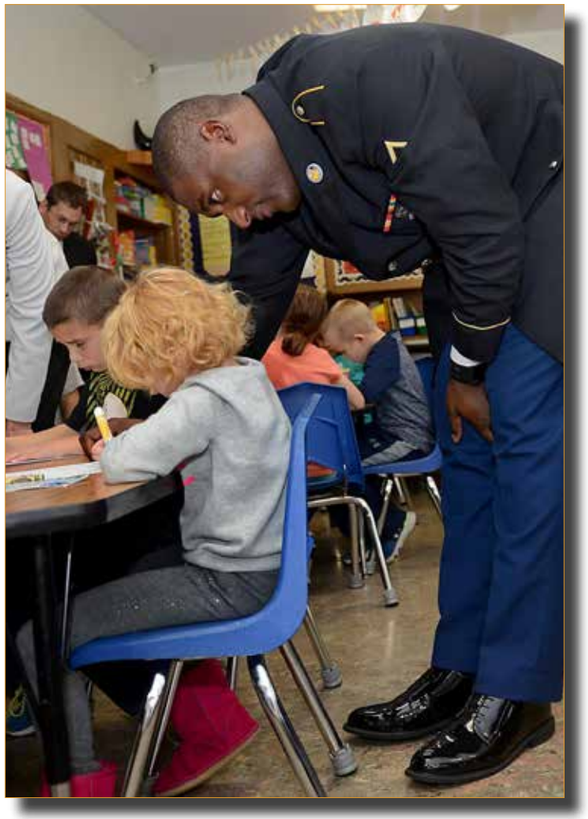
Did you know that DA civilians can take part in a six-month exercise program? While every organization has specific guidelines for employee participation, the Army Civilian Wellness Program allows civilian employees to exercise up to three hours per week during the duty day to help promote a healthier and more productive workplace. For more information, contact Natick Family and MWR at ext. 4791.

Soccer League

Team NSSC is moving indoors for the winter season and the next six-week round of intramural soccer, starting Jan. 29. The league will play on Monday nights at Team Works in Acton, Mass. If you are interested in joining the NSSC Soccer Team, please contact MWR at ext. 4791.

Focal Point





Photos: Ken McGagh/ MetroWest Daily News

Soldiers from the Natick Soldier Systems Center visited Johnson Elementary School Nov. 18 to help students write letters to deployed service members. Above, a first-grader writes a letter to a U.S. Airman. Upper right, Pvt. 2 Brian Clarke leans over first-graders as they write their letters. Right, Capt. Enrique Curiel and Clarke watch over tables filled with children writing letters, which go through the Hanscom Airman and Family Readiness Center.

Bama Bound

Senior commander says goodbye to NSSC

By Bob Reinert, USAG Natick Public Affairs/NATICK, Mass. (Dec. 9, 2016)

"Roll Tide."

During his brief tenure as senior commander of Natick Soldier Systems Center, Brig. Gen. Thomas H. Todd III was known to utter those words, most closely associated with the wildly successful Crimson Tide football team at the University of Alabama in his hometown of Tuscaloosa. Now, a little more than a year after arriving in New England, the career Army aviator returns to Alabama's familiar red clay at Redstone Arsenal. Todd, also deputy commander of Research, Development and Engineering Command, had come to Natick from Redstone, where he was project manager, Utility Helicopters, Program Executive Office, Aviation. He will head back there as Program Executive Officer, Aviation, after turning over the reins at NSSC Jan. 5 to Brig. Gen. Anthony W. Potts.

"The 14 tenant units we've got here, they've come together and formed what we call 'Team Natick' over the last year, which is really exciting to see," Todd said. "I hope it continues. It's only as good as they'll make it."

When Todd came to that team in November 2015, it marked his first New England experience.

"This was on top of my list," Todd said of NSSC. "Part of it was geography. This area interested us.

"The opportunity to be a senior commander at an installation's a big deal. To be the NSSC commander is a big deal. And also (to) get to be a deputy commanding general is a big deal. So the job responsibilities were appealing."

Todd wasn't quite sure what awaited him at Natick, however.

"In general terms, I had no idea what to expect," Todd said. "I had not served a tour of duty in science and technology. I had worked with science and technology labs but not served a tour of duty in RDECOM or in a lab area like this."

He quickly established workforce safety as his No. 1 priority, which led to the building of a new front gate. Quality of life became another priority, and improvements to other facilities, such as Hunter Auditorium, followed.

"I want people to want to work here for our Soldiers," Todd said. "That's kind of the quality-of-life measure that I use. Do people want to be here?

"As we try to recruit new talent, they're going to look for campus-like environments. They're going to look for quality of life."

Toward that end, military construction dollars are flowing through the pipeline to build new on-post housing.

"That's a watershed event," said Todd, "because what it does is it signifies commitment to the mission here, commitment to the installation, commitment to the team – by the Army."

Todd expects the Natick team to be in the forefront of human performance optimization for the Army in the years ahead.

"We believe that we should be the lead in that regard in terms of research," Todd said. "I've seen the big oak tree (that is NSSC), but I didn't realize the massive root structure. The root structure is all our partners in this area."

Academic partners such as MIT, Tufts and the University of Massachusetts Lowell have all made significant investments in collaborations with NSSC.

"If you uproot the tree, then guess what? You've got to (find) somewhere else in the world to invest all that money," said Todd, "and it's not going to happen overnight.

"This is the Soldier center for research. And anybody that wants to do it needs to come here, because this is where it's all put together. It's a team already. It's achieving goals already."

Now Todd returns to program management for aviation, which he said he loves even more than flying helicopters.

"I liked being able to effect change on that platform that was going to be used by our sons and daughters," Todd said. "So getting to go back to that is something very near and dear to my heart."

He will be reunited with family in Alabama, where he will root for the state university's upcoming NCAA football championship run.

"I did not go (to Alabama), just because everybody in my family had gone there," said Todd, a graduate of The Citadel in Charleston, South Carolina. "I'm still a big Alabama fan. I've got 'Roll Tide' written on the inside of my Citadel ring."

Todd departs with a newfound love of this area and its Red Sox.

Photo: David Kamm, NSRDEC

"We can do great things separately, but we can do greater things together."

Brig. Gen. Thomas H. Todd III

"We're already calling New England our second home," Todd said. "We love New Englanders, in particular."

NSSC will soon be in his rearview mirror, but he will remember its people and what they accomplished here.

"Number one, I want to thank those that I worked with so closely every day, both here and at RDECOM headquarters," Todd said. "I could not have done it without my fantastic staff – also, the executive leadership council here of all the senior leaders of all the tenant organizations coming together as one group. We did say this at the very beginning: We can all do great things separately, but we can do greater things together."

Todd said he hoped that the NSSC team would continue its commitment to Soldier success.

"I wish the entire group here Godspeed because, ultimately, we've got a lot of young 18 to 25 year olds, on average, in faraway places," Todd said. "It's such austere conditions they live in and work in. They do it unselfishly.

"So I would just ask our team to continue being great, because they are. And I look forward to seeing what they do in the future."

After serving 24 months as the United States Army Garrison Natick command sergeant major, Command Sgt. Maj. Erika Gholar will transfer responsibility to the incoming senior noncommissioned officer, Command Sgt. Maj. Michael Pintagro, Jan. 6.

Gholar, who worked tirelessly to make sure the garrison ran like a "well-oiled machine," is retiring after 31 years of service to the Army.

"I enjoyed my time here; I learned a lot," said Gholar. "It's different than any assignment I have had as a sergeant major, which is challenging not having a lot of troops. But with the Soldiers, families and the civilians that are here, it's been a pleasure to serve them."

As an advocate for the garrison, Gholar made sure to strive for a stronger team atmosphere within the Natick workforce.

"When you take care of your team and the people who have to do the job that you're leading, they're going to accomplish the mission," said Gholar. "I've seen a lot of changes on the installation since my arrival, and it's all because of teamwork."

Lt. Col. Ryan Raymond, USAG Natick garrison commander, said the way Gholar approaches everything she does shows how much she truly cares about Soldiers.

"The Army, its Soldiers and I, personally, have benefited greatly from the tenacity with which Command Sgt. Maj. Gholar approaches her mission of taking care of Soldiers, civilians and families," said Raymond. "Oftentimes, her passion steamrolled bureaucratic resistance to command priorities and allowed our team to focus on execution."

Raymond also said Gholar's work beyond the NSSC gates also shone through.

"Command Sgt. Maj. Gholar's engagement with the community truly strengthened our bond," said Raymond. "Regardless of service, the veterans in our community recognize the significance of the command sergeant major position and respond extremely well to her message."

CSM to retire

Will end 31-year Army career

By Tazanyia Mouton, USAG Natick Public Affairs/NATICK, Mass. (Dec. 14, 2016)

Gholar, a native of Prentiss, Mississippi, began her career in May 1986 as a record telecommunications center operator/maintainer. As she rose through the ranks, she became qualified as a senior information systems chief.

Before arriving at Natick in 2015, Gholar's last assignment was as the operations sergeant major for the United States Army Cyber Protection Brigade at Fort Gordon, Georgia.

"I wouldn't trade my three decades of service for anything in the world," said Gholar. "I probably would do a few things different, but for the most part, I treasure every challenge, I treasure every obstacle, and every opportunity they afforded to me to grow; personally and professionally."

Gholar also added that she has always aimed to be the best command sergeant major, Soldier and person that she could be, and since her early days in the military, she's always been clear about her mission.

"Whether it's here or whether it's somewhere else I'm assigned, it's not just putting Soldiers first, it's (about) putting people first," said Gholar. "It's making sure the needs of people around you are met to the best of your ability with the resources you have."

Gholar, currently pursuing a bachelor's degree in human resource development from Southwestern College (Winfield, Kansas), plans to continue her education to receive a master's degree in human resource management.

"I want to be active in my community because I volunteer with the Rotary (Clubs) and the different organizations here in Natick," said Gholar. "One thing that is really near and dear to my heart is the Wounded Warrior Project, so I want to be able to go volunteer and assist that program and get involved in my local town."

Photo: USDA, DOJ (Legal Corner)

Pot? Not ...

Legal marijuana still off-limits for Soldiers, federal employees

By Capt. Briana S. Tellado, Command Judge Advocate

On Election Day in 2016, voters nationwide exercised their democratic rights and civic duties, voting for the next president and commander-in-chief. But Massachusetts voters (in addition to voters in several other states) were also presented with a referendum: They could vote whether to legalize and regulate the sale, use and possession of marijuana by adults. In Massachusetts, the majority voted in favor of legalizing marijuana, with the new law becoming effective Dec. 15, 2016.

But if you're a Soldier or a civilian employee of the Department of Defense, how does this new law impact you? The short answer is that it doesn't. You still cannot use marijuana – that is, unless you want to be fired and/or possibly go to jail.

The Uniform Code of Military Justice, Article 112a, makes it illegal for Soldiers and other service members to use, possess, manufacture, distribute or transport controlled substances, to include marijuana. A single violation for use or possession could result in the service member being criminally charged at a court-martial. Service members must obey the UCMJ at all times, no matter what state, city or country they are located in.

So even if smoking marijuana is legal in Massachusetts, it's still not legal for Soldiers in Massachusetts. If found guilty of using or possessing 30 grams or more of marijuana, the service member could be subject to a maximum sentence of a dishonorable discharge (Say bye-bye, G.I. Bill!), forfeiture of all pay and allowances, and confinement for up to five years.

Possessing or using less than 30 grams can earn a dishonorable discharge, forfeiture of all pay and allowances, and up to two years in confinement. A conviction for distributing marijuana carries a maximum sentence of a dishonorable discharge and 15 years in confinement.

If you're a Soldier or a civilian employee of the Department of Defense, how does this new law impact you? The short answer is that it doesn't. You still cannot use marijuana – that is, unless you want to be fired and/or possibly go to jail.

A guilty finding at a general court-martial also means the service member becomes a convicted felon. Generally speaking (although it varies depending on the state where you registered to vote), felons are not eligible to vote while serving a prison sentence, during probation, or while on parole.

All enlisted Soldiers using illegal drugs or testing positive for drugs, if not referred to court-martial, will be processed for separation under Army Regulation 635-200, Chapter 14-12(c)(2). A separation for drug use typically carries with it a General or Other Than Honorable (OTH) characterization of discharge, meaning you would lose eligibility for the G.I. Bill and possibly some V.A. benefits, too.

For civilian employees of the DoD and other federal government organizations who use illegal drugs or are under the influence while on duty, supervisors are authorized to impose a variety of disciplinary actions, which can include a written reprimand, suspension, required counseling or rehabilitation, and/or removal from federal service, consistent with Army Regulation 600-85, Chapter 10-31.

Dependents of military and civilian employees can also face adverse consequences from using marijuana. When physically present on Natick Soldier Systems Center, which includes all NSSC family housing areas, the possession, use, distribution or manufacture of any synthetic or natural substance, for the purpose of inducing intoxication, is prohibited, with very limited exceptions outlined within NSSC Policy Statement 27-2016. Residents who violate this policy could be subject to eviction from USAG Natick Army Family Housing.

If you or your family member works for the federal government, I encourage you to just say no to drugs.

Uniform Approach

Soldiers, researchers test prototypes during exercise

By Dan Lafontaine, RDECOM Public Affairs/ABERDEEN PROVING GROUND, Md. (Nov. 23, 2016)

U.S. Army researchers who are developing a wool-based fabric blend are aiming to improve combat uniforms while also boosting U.S. manufacturing jobs.

The Army has developed a fabric composed of 50 percent wool, 42 percent Nomex, five percent Kevlar and three percent P140 antistatic fiber. The goal is to create a flame-resistant combat uniform made wholly from domestic materials, said Carole Winterhalter, a textile technologist with the Army Natick Soldier Research, Development and Engineering Center.

"We have a lightweight fabric that is inherently flame resistant. No topical treatments are added to provide [flame resistance]," Winterhalter said. "We are introducing a very environmentally friendly and sustainable fiber to the combat uniform system."

To test prototype uniforms made with the fabric, three Army researchers traveled to Germany in August for Exercise Combined Resolve VII, where they worked with about 100 Soldiers. The exercise drew about 3,500 participants from NATO allies to the region.

There, the researchers joined John Riedener, the field assistance in science and technology adviser assigned to 7th Army Training Command. FAST advisers are a component of the U.S. Army Research, Development and Engineering Command.

"We were in the heat of summer here, and it was very warm during the exercise," Riedener remembered. "The uniforms were lighter weight and breathed better. Soldiers were very happy with the material."

Soldiers from 1st Armored Brigade Combat Team, 3rd Infantry Division participated in the 21-day testing and completed surveys before and after the exercise, said Brian Scott, NSRDEC equipment specialist, Soldier and Squad Optimization and Integration Team. The R&D team selected Hohenfels, Germany, because the evaluation of a fire-resistant wool undergarment also took place there.

During testing, each Soldier received three prototype uniforms. Each was made from the same wool-based blend. One was "garment treated" with permethrin, an insecticide, and another was "fabric treated" with permethrin. The third was untreated.

The Soldiers, who came from a variety of military occupational specialties, wore each of the three uniforms for about seven days in a field environment for a total of 21 days. The testing and survey instructions asked Soldiers not to compare the prototypes with existing uniforms or camouflage patterns.

Their feedback regarding comfort, durability, laundering and shrinkage, insect resistance, and overall performance will help determine whether researchers will continue the development effort, Winterhalter said.

Initial results suggest the majority of the Soldiers liked the fabric because it was lightweight and breathable; however, analysis of the survey data has yet to be completed, said Shalli Sherman, NSRDEC program manager for the Office of Synchronization and Integration.

Winterhalter is optimistic about the prospect of a wool blend being incorporated into combat uniforms because of its environmental, manufacturing and economic benefits. She said the United States has about 80,000 wool growers, and the Army would like to include the material in the clothing system.

"Wool is 100 percent biodegradable. It's easy to dye and absorbs moisture," said Winterhalter, who also serves as the federal government's chief technology officer for the Advanced Functional Fabrics of America Manufacturing Innovation Institute.

"The Army has spent quite a bit of time and money to reintroduce a manufacturing process in this country called Super Wash that allows us to shrink-resist treat the wool. ... When blended with other fibers, the fabric does not shrink excessively when washed."

The new Super Wash process makes wool viable for combat clothing in nearly any application, including jackets, pants, underwear, headwear, gloves and socks, Winterhalter said.

NSRDEC researchers are planning for a larger field study with more users over a longer time period, possibly 30 days. More data on comfort and durability will be needed for the Army to move forward, Winterhalter said.

Pvt. Antwan Williams, an infantryman serving as a Human Research Volunteer Soldier at the U.S. Army Natick Soldier Research, Development and Engineering Center, models a prototype uniform developed by NSRDEC's textile technologists. He is also wearing a MOLLE Medium Pack System and a conceptual load carriage vest system called the Airborne Tactical Assault Panel that is designed specifically for airborne operations but will also be evaluated for non-airborne operations, including jungle environments.

Photo: Jeff Sisto, NSRDEC Public Affairs

NSSC Top 5
2016

On Ice

Natick provides shelters for Navy at Arctic Circle

By Jane Benson, NSRDEC Public Affairs/NATICK, Mass. (June 6, 2016)

U.S. Army shelters perform well on land, but that just may be the tip of the iceberg, or rather the tip of the floating ice sheet.

The Army Natick Soldier Research, Development and Engineering Center provided shelter support to the Navy during its biannual Ice Exercise in the Arctic Ocean. NSRDEC shelters were used as part of a temporary station on a floating ice sheet during the exercise called ICEX. The Navy used the NSRDEC shelters for billeting, diver exercises and emergency shelter.

The U.S. Navy's Arctic Submarine Laboratory is the lead organizer for the arctic exercise, which is held by the Navy as a way to research, test and evaluate operational capabilities. During the exercise, Ice Camp SARGO serves as a temporary command center, including shelters and other infrastructure to support the exercise.

"ICEX is the U.S. Navy's RDT&E exercise used to validate and assess operational readiness of the submarine force in the Arctic, while continuing academic research and military training in extreme cold conditions and the undersea environment of the region," said Theodore Goda, the Navy's ICEX Program Manager, at the Undersea Warfare Development Center detachment Arctic Submarine Lab.

"Every two years the Navy holds an event to basically look at their Arctic readiness and to do some evaluations of the projects and equipment," said Clinton McAdams, Science and Technology Strategic Integration lead at NSRDEC. "The shelters they've used in the past typically took a week or two to set up, so the Navy reached out to us and asked if we had something they could set up more quickly. We were able to get them our TEMPER air-supported shelters."

NSRDEC provided the Navy with shelters featuring airbeam technology. Natick was one of the pioneers of airbeam technology, which consists of inflatable, high-pressure arches. The arches replace metal frames in tents and can be deployed rapidly. The airbeams come in small, lightweight packages. Large shelters and shelter complexes can be set up quickly and with fewer personnel than metal frames.

Also, in the case of a storm, airbeam shelters may be safer than metal or wooden frame shelters, because the airbeams tend to bend and pop back up rather than break apart or collapse.

"I saw this as a great opportunity for our shelters to be utilized and evaluated in an extreme environment by the Navy," McAdams said. "This opportunity also allowed us to showcase some of our products to a whole new audience while we gained valuable information on new ways our shelters can and will be utilized in the Arctic."

"NSRDEC provided multiple airbeam shelters and forced air heaters that were tested to operate in Arctic conditions," Goda said. "At ICEX 2016, the Arctic Submarine Laboratory was able to conduct an operational assessment of the form, fit and function of the shelters and heaters. The shelters were used for berthing, watch standing, and to support training and RDT&E projects on a shifting ice floe approximately 200 (nautical miles) north of Prudhoe Bay, Alaska. Of particular interest to ASL was the capability to deploy the airbeam shelter rapidly with minimum manpower and equipment requirements."

Continued, next page

Photo: MC3 Tyler N. Thompson, U.S. Navy

John Viggato, Assistant Product Manager for Shelter Systems, Product Manager Force Sustainment Systems, or PM FSS; Ariana Costa, Program Integrator, NSRDEC's Expeditionary Basing & Collective Protection Directorate, or EB&CPD; and NSRDEC's Primo Borelli traveled to the Arctic to help with the setup of the shelters.

The Navy was pleased with the ease of setting up and using the shelters as well as their performance, particularly given the extreme cold and wind.

"The U.S. Navy's Arctic Submarine Laboratory is grateful for the collaboration with the U.S. Army's Natick Soldier Research, Development and Engineering Center on shelter and heating capabilities for the austere arctic environment of Ice Exercise 2016," Goda said. "The airbeam tents and forced air heaters performed well in conditions exceeding minus 20 degrees Fahrenheit, minus 45 degrees Fahrenheit wind chill, and 25 knots wind gusts."

"The structures were used for billeting as well as a base of operations for the four dive teams that were on site," said Viggato. "A hole was melted in the ice for the divers to enter, and the shelter was placed on top with the floor removed. This provided the dive teams with a warm, safe environment in which to surface and prepare for their dives."

"For us, it is the first time that I know of where we have had anything like this where we are on sea ice and where we had search and rescue divers using it (the shelter) to go in and out of the water," McAdams said. "The divers were practicing search and rescue underneath the ice. They basically used one of the shelters as a warm bay and one for an unmanned underwater vehicle and then they had one for billeting and emergency overflow."

In addition to providing shelter support for the Navy, NSRDEC and PM FSS evaluated new camouflage netting.

"We evaluated a number of camouflage prototypes in support of the Ultra-Lightweight Camouflage Net System modernization effort," said Viggato. "PM FSS has a new requirement to upgrade this legacy camouflage system, and we used Ice Camp SARGO as an opportunity for an initial look at snow pattern camouflage. We observed these prototype nets with visual cameras, as well as near-Infrared, Short-Wave Infrared, and Long-Wave Infrared sensors. The results were promising, and the team learned quite a lot about full-spectrum performance in this unique environment."

NSRDEC's support of ICEX helped ASL carry out the exercise as well as build the foundation for future collaboration.

Photo: MC2 Tyler N. Thompson, U.S. Navy

"The members from NSRDEC and PM FSS who went up to Ice Camp SARGO were able to gain firsthand knowledge of some of the difficulties an ice camp presents in terms of basing," said McAdams. "By us sending TEMPER air-supported shelters, we were able to allow the Navy to set up the camp quicker and be able to start mission tasks more rapidly than they have been able to in the past. I see this as a great opportunity for EB&CPD and the U.S. Navy ASL to collaborate and for us to evaluate shelter technologies in an extreme arctic environment in the future."

"We learned a lot and were also able to make some recommendations to them for future ICEX events," said Costa. "We are planning for them to visit us soon to learn more about the technologies NSRDEC has that would assist them, including options from Combat Feeding and Airdrop."

"The airbeam shelter was paramount to the Arctic Submarine Laboratory meeting its objective of overnighting on the ice starting on the first day of ice camp build-up, a first for the ICEX Program," said Goda. "The airbeam tent performed well in all aspects of the operational test."

"This event was a great opportunity for us to experience the unique environment the Navy operates in during this exercise," said Costa. "We were happy to see that the airbeam shelters performed well in such extreme conditions."

"While this was an excursion into an entirely tent-based camp, it was extremely successful and we look forward to additional collaboration with the Navy in future years," said Viggato.

"It was a once in a lifetime opportunity that was truly eye opening to conditions of the Arctic," said Borelli. "I would go back again in a heartbeat."

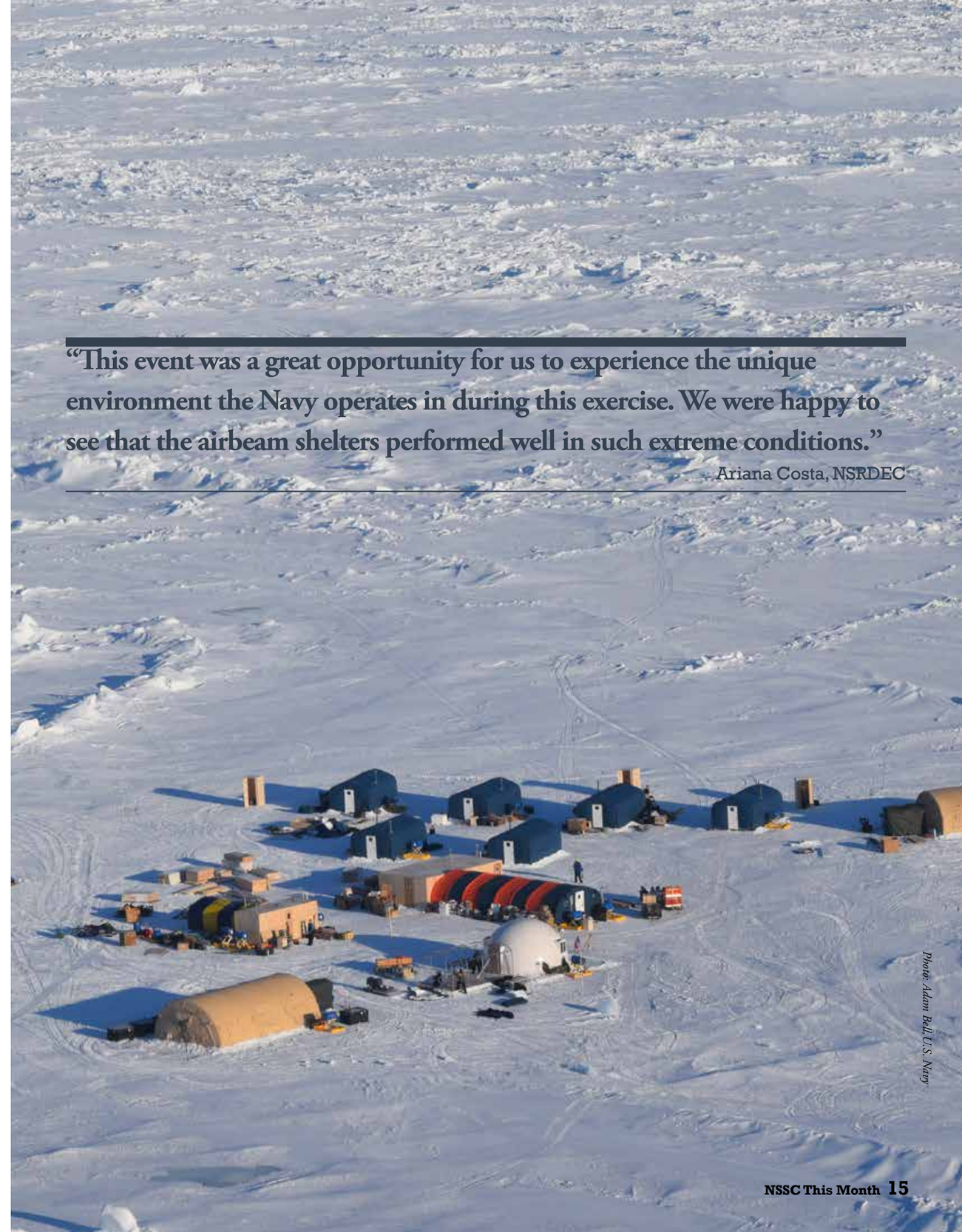


Photo: Adam Bell, U.S. Navy

"This event was a great opportunity for us to experience the unique environment the Navy operates in during this exercise. We were happy to see that the airbeam shelters performed well in such extreme conditions."

Ariana Costa, NSRDEC

NSSC Top 5
2016

Jumpin' Jennifer

Natick civilian attends Airborne School

By Jane Benson, NSRDEC Public Affairs/NATICK, Mass. (June 21, 2016)

Why would an Army civilian jump out of a perfectly good airplane?

Jennifer Hunt did it to find out more about Soldier equipment and the Soldiers who use it.

Hunt is a textile technologist/materials engineer on the Aerial Delivery Engineering Support Team, or ADEST, at the Army Natick Soldier Research, Development and Engineering Center.

At just under 5 feet tall, Hunt is a powerhouse of dedication. To garner greater insight into her job, Hunt attended and graduated from the U.S. Army Basic Airborne Course, also known as Jump School, which provides paratrooper training for the armed forces.

"I wanted to go and have the experience of using and jumping the parachute equipment I work with and inspect every day," said Hunt. "The opportunity has given me a different and fuller perspective of the work I do for ADEST and has made me better qualified to do my job."

"Jen works closely with personnel parachute systems, system parts/components and often goes TDY (government travel) for first article tests and lot inspections," said Richard Benney, director of the Aerial Delivery Directorate at NSRDEC. "Jen has rapidly become an aerial delivery subject matter expert and is well respected across the community for her knowledge, skills, abilities and total dedication to the airborne Soldier."

Hunt had wanted to go to jump school for a long time and was prepared to do the intense physical training necessary in order to be able to participate.

"Before this, I never went to the gym," said Hunt. "I never ran. To prepare for the challenges, I had to physically train for seven months, working out five to six days a week – running, cardio and weightlifting. You have to be able to meet certain physical requirements to get in and stay in."

Photo: NSRDEC Aerial Delivery Directorate

"I wanted to go and have the experience of jumping and using the equipment I work with every day."

Jennifer Hunt, NSRDEC

"Jen expressed interest in attending the Basic Airborne School approximately one year ago and continued interest after getting smarter on the physical and mental challenges of the BAS – especially with no prior military experience and the knowledge that she will stick out as the only U.S. Army civilian," said Benney. "With support from the NSRDEC riggers and other military personnel at NSRDEC, Jen worked out on her own time for many months in preparation and to ensure she could pass the 18- to 21-year-old physical test easily."

"BAC was three weeks comprised of ground week, tower week and jump week," said Hunt.

"Ground week focused on proper landing – parachute landing falls (PLFs). We did PLFs from platforms of different heights and from lateral drift assemblies, which used a zip line."

Practicing PLFs and learning how to fall correctly in any direction is an important part of the training because it is key to avoiding injury.

During the course, Hunt also learned how to properly wear the parachute equipment, including the harness, the main and reserve parachute, and combat equipment. She also learned how to recover the equipment off the drop zone after the jump.

"Tower week included jumping from 34-foot towers with mock aircraft doors," said Hunt. "In full harness and equipment, we practiced how to properly exit an aircraft. We completed more PLF training using swing landing hangers. We learned techniques for handling emergency situations, parachute collisions, tree and water landings, and malfunctions."

In addition to the intensive training and preparation, you also, of course, have to jump out of an airplane.

"Jump week involved completing five jumps from a C-130 aircraft using the knowledge learned over the course," said Hunt. "After completion of the jumps, we inspected all the equipment for damage and prepared the systems for repacking."

Hunt said that the young Soldiers she trained with were incredibly supportive.

"The Soldiers wanted to know why I was there," said Hunt. "When I explained my job and how I wanted to learn more about the Soldier's perspective of using the parachute equipment, they were amazing and so supportive. They appreciated why I was there. Not being familiar with military culture, they taught me a lot – like how to run in formation and properly wear the uniform, how to follow and respond to commands and address Soldiers, and many other things part of military life that, being a civilian, I was not aware of. They spent a lot of time helping me fit in."

Being a civilian and a woman made Hunt unique. Only about 10 percent of her class were women. And among the Army's women, Hunt's height and weight place her in the fifth percentile – making her one of the smallest in stature. She stands at just under 5 feet and was the minimum weight to qualify.

To do the pull-up test, or arm hang, Hunt actually had to jump to grab the bar.

"I was very nervous first going in. After passing some of the physical tests, Marines and Soldiers were fist-pumping and telling me, 'You're killing it,'" said Hunt. "Their support really helped me. It gave me encouragement."

The average age of the Soldiers with whom she attended Jump School was around 23 or 24 years. The cut-off age is 36, and Hunt, who is 41, had to get a waiver to attend.

"From all the feedback received, she nailed it and impressed the majority of her classmates," said Benney. "Many did not pass the course. I recall Jen checking in via phone after completing the first week and stating, 'Did you know I'm the oldest, the shortest and the lightest in my class of around 300?'"

Hunt was inspired by the dedication of the young Soldiers she encountered, and they were inspired by her.

"On the first jump, they had me jump out first," said Hunt. "Some Soldiers told me afterwards, 'We saw you do it, and we thought now we HAVE to do it.'"

She is also an inspiration to her colleagues at NSRDEC.

"We nicknamed her 'G.I. Jen.' She went so that she could do her job better," said Christine Charette, a textile technologist at NSRDEC. "She was doing something that people half her age do. I feel that I can learn from her experience. She is able to give us feedback now and share what she learned with the team. It just enhances what she is able to do. Her level of dedication is exceptional."

"Clearly a huge accomplishment, Jen now fully understands what it takes to be Airborne and has gained an even higher level of credibility as part of the club," said Benney. "The knowledge of how the T-11 personnel airdrop equipment is used, the training soldiers experience, and airborne operations in the aircraft, during exit, and under canopy through landing will all be invaluable in assisting her for the rest of her career."

The importance of being able to incorporate what she learned into her daily work cannot be overstated.

"As the military liaison for NSRDEC's Aerial Delivery Directorate, I've had the opportunity to work with numerous scientists and engineers who are extremely talented and smart," said CW5 Cortez Frazier. "The theoretical knowledge that our engineers have is nothing short of amazing. However, theoretical knowledge can only take you so far when dealing with airborne paratroopers that want to know that you as an engineer can guarantee that the product or service that you have developed/tested will work as designed. What better way to earn the credibility of your customers than to actually gain the practical knowledge by jumping out of an airplane with the same products that we tell our Soldiers will work?"

"Ms. Hunt's expertise as a textile technologist directly contributes to our mission when conducting parachuting or airdrop-related mishap investigations," said John Mahon, a senior airdrop equipment specialist at NSRDEC. "The experience gained by attending Basic Airborne School and performing parachute jumps with the equipment she is subject to be analyzing will be beneficial by having firsthand knowledge of the associated environmental factors that the materials which the parachute is constructed of goes through. From ultraviolet rays through opening forces and the range of size, shape and weight of the jumpers are just some of the contributing factors that present themselves through each investigation."

"It has been the best training for me, very beneficial," said Hunt. "It was an amazing experience to get the Soldier perspective, to actually use all the equipment and see how it all interfaces and works together – things you usually don't get to see as an engineer. It really helped me to understand the equipment on a whole different level."

"Jennifer's dedication to her understanding of aerial delivery equipment by becoming an airborne paratrooper gives her that special practical knowledge required to articulate clearly a better understanding to her fellow 70,000-plus paratroopers," said Frazier.

"The airborne experience she has attained also provides Ms. Hunt a feeling of personal ownership when inspecting the components of personnel parachute systems and a more in-depth level of understanding of the whole process, which cannot be taught from any textbook," said Mahon.

Hunt saw firsthand the importance of the parachute work done by NSRDEC.

"Throughout the course, Soldiers are told by the instructors 'Trust your equipment. Trust your equipment,'" Hunt recalled. "That is what they are taught. And we, on the engineering side, our job is to make sure the equipment is safe and built correctly because that is what the Soldiers rely on. It validates what we do and the importance of the work that we do."

Background photo: Staff Sgt. Adam C. Keith, 82nd Airborne Division Sustainment Brigade

NSSC Top 5
2016

Peak Season

Studying human performance at altitude

By Mallory Roussel, USARIEM Public Affairs/COLORADO SPRINGS, Colo. (Aug. 5, 2016)

What goes up must come down. There has never been a more perfect expression to describe what altitude missions are like for Soldiers.

Soldiers deployed in mountainous terrains like Afghanistan often must make multiple trips from low altitude (less than 4,000 feet) to high altitude (greater than 11,500 feet) and back again with days to weeks separating the ascents. As Soldiers continue to make rapid ascents to altitude without acclimatizing, it is undeniable they are going to get sick. Over the years, Dr. Stephen Muza and Dr. Beth Beidleman of the U.S. Army Research Institute of Environmental Medicine have received numerous inquiries from operational forces requesting improved guidance for sustaining altitude acclimatization after descent.

Rapid ascent to altitude causes illness, properly known as Acute Mountain Sickness, during the first 48 hours at altitude because of the environment's lower oxygen pressure levels, which then causes less oxygen to get to critical organs, like the brain, and working muscles. Altitude acclimatization attained over days of exposure to high altitude is the most effective way to prevent AMS. However, how quickly acclimatization is lost upon descent and if acclimatization can be sustained at low altitude is not well known.

USARIEM researchers recently concluded a 12-day study at the Institute's Maher Memorial Altitude Laboratory, located on the summit of Pikes Peak in Colorado, to test a method to sustain altitude acclimatization. Researchers studied how AMS symptoms decreased and exercise performance improved as test volunteers acclimatized to the hypoxic environment.

"When the test volunteers first get to the top of Pikes Peak at 14,115 feet, they could potentially suffer from AMS, which would degrade their physical and cognitive performance," said Beidleman, a research physiologist and the principal investigator of the altitude study. "By the end of those 12 days, their bodies are well adjusted to the hypoxic environment. Although we did a 1992 altitude study to see how long it takes to lose acclimatization, we do not know whether or not we can sustain (acclimatization) as Soldiers return to sea level by intermittently exposing them to hypoxia (low oxygen) in 'hypoxia rooms.'"

Next, Dr. Mark Buller, a computational physiologist and Beidleman used physiological status monitors to develop individualized models that could help predict which Soldiers are likely to get AMS and which Soldiers will remain symptom-free. When test volunteers stepped foot on Pikes Peak, they immediately donned chest harnesses that tracked minute-by-minute heart rates and arterial oxygen saturations for the first 24 hours of their exposure to 14,115 feet to help detect development of AMS during the altitude exposure.

Volunteers run on treadmills as part of a 12-day study at USARIEM's Maher Memorial Altitude Laboratory atop the 14,115-foot Pikes Peak in Colorado.

Photos: David Kamm, NSRDEC Strategic Communications

Then three times throughout the 12-day study, volunteers participated in time trials, where researchers assessed volunteers' physical performance. The volunteers ran for 3.1 miles at a 1-percent grade on a treadmill while researchers monitored their breathing, oxygen consumption and heart rates. This physical performance test can be especially grueling during the first 48 hours, when AMS is at its worst.

"We know when Soldiers go to altitude, their performance is impacted," Beidleman said. "Whatever task you do at sea level, it takes you longer to do at altitude. We are looking at how physical performance improves over time at altitude as your body adjusts to the hypoxia."

Volunteers also settled at computers to take daily cognitive tests, using the Automated Neuropsychological Assessment Metrics battery, a computer-based tool designed to detect reaction time, speed and accuracy of attention, short-term and long-term memory and thinking abilities, and the Synthetic Work Program test, which evaluates multitasking ability.

"Cognitive performance is very important for the military because Soldiers have to be able to identify a friend or foe," Beidleman said. "That involves quick reaction times and short- and long-term memory."

Next, blood and ventilation teams tested the volunteers' blood and resting breathing. According to Beidleman, during acclimatization, a person begins to breathe more, which helps transport more oxygen to the working cells, and also loses plasma volume, which concentrates the red blood cells and also improves transport of oxygen to the working muscles. Once arterial oxygen saturation levels start to creep up and they start producing more red blood cells, overall health and performance improves at altitude.

Research continued even while volunteers were asleep. The low oxygen and AMS can also affect Soldiers' sleep quality and quantity by causing periodic or irregular breathing and even instances of sleep apnea.

"The volunteers have a lot of awakenings before acclimatizing," Beidleman said. "You do not breathe for about 15 to 25 seconds, and, all of a sudden, you gasp for air. We use sleep watches to measure sleep quality and quantity before, during and after acclimatization."

On Day 13, the researchers and volunteers flew back to USARIEM for a 12-day treatment phase. During the treatment phase, volunteers spent either three hours a day in USARIEM's normobaric hypoxia room, a simulated altitude room that lowers the amount of oxygen but maintains the same pressure at sea level, or a sham normobaric hypoxia room that keeps oxygen levels the same as at sea level. Volunteers were blinded to what treatment they were receiving. Finally the volunteers spent 24 hours in USARIEM's hypobaric chamber, which can simulate Pikes Peak's oxygen and pressure levels at 14,115 feet, to see if the normobaric treatment sustained their acclimatization.

Surprisingly, not everyone is susceptible to AMS. Some Soldiers might display severe symptoms while at altitude, such as headache, vomiting, fatigue, lassitude or trouble sleeping that is so severe they need to be put on supplemental oxygen. Others are seemingly immune. Beidleman wants to learn why.

Dr. Nisha Charkoudian, a research physiologist, is looking at muscle sympathetic nervous activity as a potential predictor of who will and will not get AMS or have greater than normal decrements in physical or cognitive performance.

"What makes this individual different from that individual?" Beidleman asked. "We are looking at blood and genetic biomarkers that may be able to predict who is more likely to get or not get sick."

According to Beidleman, USARIEM is moving toward individualized medicine and eventually wants to create "something like a urine pregnancy test to see whether or not Soldiers are more likely to get AMS." This would not prevent Soldiers from going to altitude, but it would make the leaders aware of what to expect and know who is susceptible and who may need intervention early in altitude exposure.

"It is a scientific advancement to move toward these individualized models and develop a method to help our troops when they have to go on repeated missions to altitude," Beidleman said. "If we could prevent AMS upon return trips to altitude by sustaining acclimatization, Soldiers might have to experience AMS during the first exposure to altitude, but we could sustain that acclimatization so they would not have to go through those miserable 48 hours again. That is a huge benefit for the Soldier and the Army."

NSSC Top 5
2016

The Right Stuff?

Developing food for Mars astronauts

By Jane Benson, NSRDEC Public Affairs/NATICK, Mass. (May 23, 2016)

"For NASA astronauts, when they first get to Mars, this will be their primary food source until they are able to establish alternative food sources."

Danielle Froio, Combat Feeding

When designing food processing and packaging for a future mission to Mars, researchers at the U.S. Army Natick Soldier Research, Development and Engineering Center, or NSRDEC, recognize the gravity of their task.

To best nourish Mars astronauts and maintain a quality of life, devising the right food packaging, combined with compatible and effective food processing techniques, is just as important as the food that's in it.

Danielle Froio, a materials engineer in NSRDEC's Combat Feeding Directorate, or CFD, is investigating the effects of various processing techniques and packaging materials on vitamin stability and shelf life. Froio's work on packaging is part of a larger CFD project with NASA that also involves Ann Barrett's work investigating matrix effects on vitamin stability and Michelle Richardson's work perfecting a breakfast meal replacement bar.

"Sometimes people assume that you can just put food in a package, but a lot has to go into designing a package for a specific food item," said Froio. "If you want to keep the moisture out, you need to use different materials than if you want to keep the oxygen out. It's important to design a package that meets the specific needs of a particular food item."

NASA reached out directly to CFD researchers for their expertise.

"We've had relationships with NASA over the years, so it is a really good fit because both the military and NASA have the same need for extended shelf life and even more so now with NASA trying to plan for a five-year shelf life for the Mars mission," said Froio. "They are prepositioning the food on Mars so it will be there before the astronauts get there – that's why we need the five-year shelf life. The food will be their initial food source."

Froio is working on packaging and processing for a main entrée. One type of entrée is investigated at a time to better enable the selection of the most effective processing and packaging.

"I'm working on a retort food item, creamy Cajun chicken, which is very similar to an entrée that you would find in an MRE (Meal, Ready-to-Eat)," said Froio. "Part of this effort is looking at a high-water-activity food item, rather than the low-water-activity items that Michelle and Ann are investigating."

CFD is investigating packaging structures from previous MRE studies as well as commercially available pouches. The packaging will then be combined with different processing methods.

"With the MRE we use a retort process that is essentially like a pressure cooker," said Froio. "It sterilizes the food using a high temperature so that you can keep it on the shelf for up to three years and it is still safe to consume. For this project, we were looking at comparing the retort process, which can be thermally degrading to food, to some of these other novel-type processes that are not as thermally aggressive, like radiation, microwave-assisted thermal sterilization, or MATS, and also pressure-assisted thermal sterilization. Each of these processes reduces the integrated time-temperature exposure of the foods, which may help reduce vitamin loss. The three different processing techniques are being used with three different packaging materials to see what the effects of these processing methods are on the packaging alone."

CFD is investigating which packaging would survive which processes and then will determine what will be the best candidate to use in a three- or five-year shelf-life study, which will show which processing methods and/or packaging structures result in the most nutritious and highest quality food. CFD also did some testing to see if processing has any effect on the pouch seal, as well as a burst test to see how much pressure will cause the pouch to burst.

"We measured the mechanical properties of the different types of packaging and how strong they are both before and after processing," said Froio. "Another important property is oxygen and water vapor barrier performance, because that is an essential component to extending product shelf life."

It's scientifically challenging to come up with the right type of packaging since both the military and NASA demand a degree of uniformity.

"The military and NASA don't want to have 12 different pouches," said Froio. "They want to have one pouch that fits the bill for every different type of food item that they have. For these retort items, we have quad-laminate structures that have foil and three other layers of material. And for snack items we use a tri-laminate. All foods have to be able to be served in these two types of pouches."

Photo: David Kamm, NSRDEC

For Froio, it's exciting to be working on a project that could impact a future Mars mission.

"Morale is tied very tightly to food," said Froio. "If you have a good meal that's tasty, then you will probably be in a lot better mood than when you have something that's cold and not tasting so well. For NASA astronauts, when they first get to Mars, this will be their primary food source until they are able to establish alternative food sources."

It's also rewarding to know that her work helps both warfighters and astronauts alike.

"Our work benefits both the military and NASA," said Froio. "Some of the pouches were developed for military applications, and now we are looking at them for NASA applications. And the work we do for NASA could also advance the processing and packaging technologies used for the military. They really do leverage each other very nicely."

Photo: NASA

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Seeing is Believing

Williamson visits BCIL at Devens

By John Harlow, USAG Natick Public Affairs/FORT DEVENS, Mass. (Aug. 8, 2016)

They say seeing is believing, and Lt. Gen. Michael Williamson, the principal military deputy to the Assistant Secretary of the Army for Acquisition, Logistics and Technology, walked away from his Aug. 4 tour of the Base Camp Integration Laboratory at Fort Devens, Massachusetts, a believer in the facility.

"I am watching innovative ideas on how to support and sustain and help our Soldiers go from good ideas into equipment that we test and can very quickly get out into the field," said Williamson. "That connection is really important. There are lots of good ideas out there, but how often do they really manifest (themselves) into something that a Soldier uses and saves his or her life and makes their life easier? That is what I saw here. This integration lab really makes a big difference of taking all of those great technologies and putting them all together and seeing how they work and having the ability to tweak left or right to make them better."

An aerial view of the Base Camp Integration Laboratory at Fort Devens.

Williamson saw firsthand a Force Provider kit that is deployable, a Force Provider kit with experimental energy-saving enhancements, and an example of Rigid Wall technology on display at the camp.

Product Manager Force Sustainment Systems operates the BCIL and works in partnership with the Natick Soldier Research, Development and Engineering Center to find new technologies that improve the quality of life for the deployed Soldier and reduce the energy footprint from the camp.

NSRDEC has been in the lead Science and Technology Objective-Demonstration for Base Camps, and having the Base Camp Integration Lab close by at Fort Devens has enhanced the research.

"I wanted Lt. Gen. Williamson's support for sustaining the Army science and technology system engineering and technology integration capabilities that have been developed by the STO-D over the past five years," said Douglas Tamilio, NSRDEC director. "The continuation of this capability will provide resources to facilitate technology transition to our (Program Executive Officer) partners and knowledge transition to our (U.S. Army Training and Doctrine Command) partners in support of requirements development."

Force Provider kits have deployed to Liberia and Senegal in support of Operation United Assistance, Iraq in support of Operation Inherent Resolve, and Afghanistan in support of Operation Resolute Support.

"I saw facilities that are deployable, cost-effective and provide a level of comfort," said Williamson. "As a Soldier, nobody ever said anything is going to be easy. We aren't looking at putting people up at the Ritz, but we are looking at providing basic comfort to our Soldiers. That is what I am seeing delivered from the people at Natick, the PM shops and at this integration lab."

The Force Provider team provides a strategic capability for the nation and could be a critical asset for combatant commanders.

"The Force Provider team is second to none in terms of competence and passion for what they do," said Lt. Col. Frank Moore, Product Manager Force Sustainment Systems. "They always put the Soldier first and take pride in their proven track record of providing quality-of-life support to the Army at a moment's notice, any place in the world."

The BCIL collects evaluation data to quantify components of performance when compared to current configurations. The BCIL provides the ability to evaluate the overall impact on fuel requirements, water requirements and waste system of a deployable base camp. Studies also focus on the effects on the transformation footprint and sustainment tail and can estimate the return on investment and suitability for deployment.

"Seeing everything, all (the base camp) put together, is really important," said Williamson. "You hear about the various technologies, and you don't see them put together. I am not sure that people are capturing what I learned here – engineers, scientists and smart folks at Natick providing capability to program managers that have the opportunity to do integration and testing.

"I also was really impressed that Soldiers from the Guard are using the equipment and providing immediate feedback," Williamson added. "We are one Army and have Guard Soldiers here for training, and the real-time feedback they provide helps us get the equipment to the field much sooner and not to block out separate times and organizations to train on it, use it and apply it."

One of the goals of the presentation to the general was to show the teamwork between PM-FSS and NSRDEC.

Photos: David Kamm, NSRDEC Strategic Communications

"I saw facilities that are deployable, cost-effective and provide a level of comfort. As a Soldier, nobody ever said anything is going to be easy. We aren't looking at putting people up at the Ritz, but we are looking at providing basic comfort to our Soldiers."

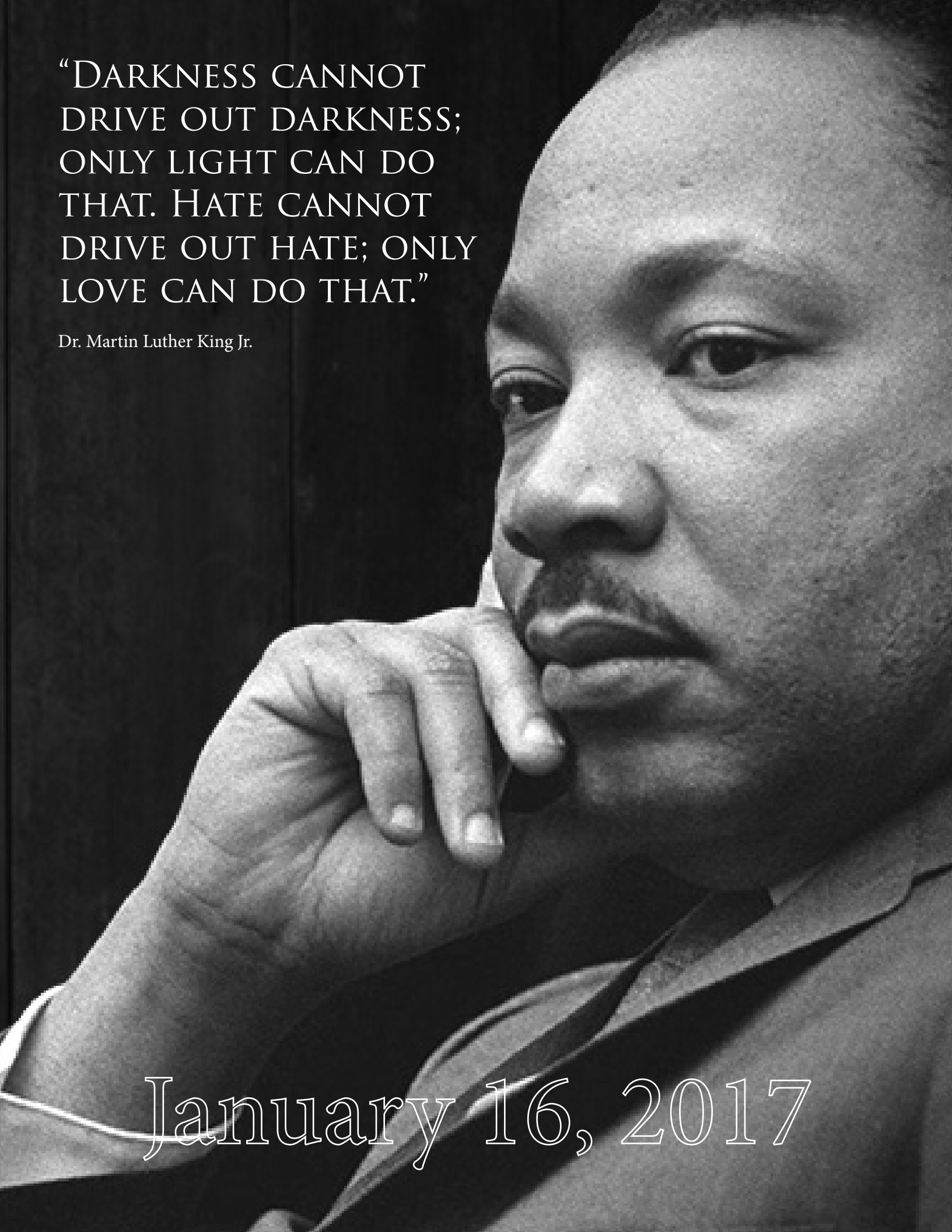
Lt. Gen. Michael Williamson

"I think it is critical having these organizations together," said Williamson. "What I saw today was a partnership that is really working. We always want to talk about having a synergy, but I see it here today manifested in the teams. I couldn't tell you who was from what organization. This was one team working toward solution sets, and that is beyond critical when you are seeing it work effectively."

Williamson said there needs to be a culture change going forward.

"If you are a commander and you have a unit and are worried about an operation puts a lot on your plate, and when someone says, 'We have something to give you,' the commanders usually react with 'Great … something else,'" said Williamson. "What I want is to change the dynamic. I want there to be situational awareness about the capabilities that Force Provider provides and have commanders asking for this capability when they know that they are going to be setting up a base camp or forward operating base. Not everyone knows of this capability, and that needs to change."

The Base Camp Integration Laboratory has been operational for more than four years and has evaluated 30 technologies, and six new technologies have been inserted into the Force Provider kit that is deployed today.


"Darkness cannot drive out darkness; only light can do that. Hate cannot drive out hate; only love can do that."
Dr. Martin Luther King Jr.
January 16, 2017