

February 2016

NSSC **This Month**



U.S. Army Garrison Natick Public Affairs Office

COMBAT FEEDING GOES TO SEA

Helping the Navy keep
fruits and vegetables fresh

Inside: No Place Like Dome • Science Is Brewing • Cold Truth



Commander's Corner

Lt. Col. Ryan Raymond
USAG Natick Garrison Commander



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A Memorable Month

February may be short, but it found a way to be memorable ... I'd like to thank each of you again for your support with regard to the water main bursting in Hunter Auditorium. Whether you were directly involved in the response or simply vacated the area so the cleanup team could get to work, I appreciate your cooperation and your patience. I also appreciate the candid feedback I received from many of you. We are looking to capitalize on the event as justification to provide a long-overdue upgrade to the auditorium.

I saw a lot of team growth in February. The garrison was honored that Mr. Doug Tamilio took the time to speak at our All Hands Meeting, providing an update on NSRDEC operations and adding relevancy to the team's daily efforts to sustain the installation. The ACS team hosted a Financial Resiliency Expo that highlighted a variety of community resources. The event coincided with the kickoff of the 2016 Army Emergency Relief campaign – perfect timing.

Those of you who attended the African American/Black History Month observance produced by the Black Employment Program Committee on Feb. 17 saw a perfect example of the greatness that comes from collaboration. I was proud to see a diverse team, representing nearly every organization on the installation, working together to put on a first-class event that gave everyone in attendance some serious fuel for reflection. I look forward to an equally creative, and widely attended, observance of Women's History Month in March.

Please keep letting me know how we are doing, what works and what doesn't. We are not resourced to do everything we want to do for this great team; therefore, we can't afford to spend in ways that do not enable you to do what you do better. As always, I appreciate what each of you does for the Soldiers of today and tomorrow!

Lt. Col. Ryan Raymond
USAG Natick Garrison Commander



NSSC This Month

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Garrison Commander
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[Erika M. Gholar](#)

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[John Harlow](#)

Editor
[Bob Reinert](#)

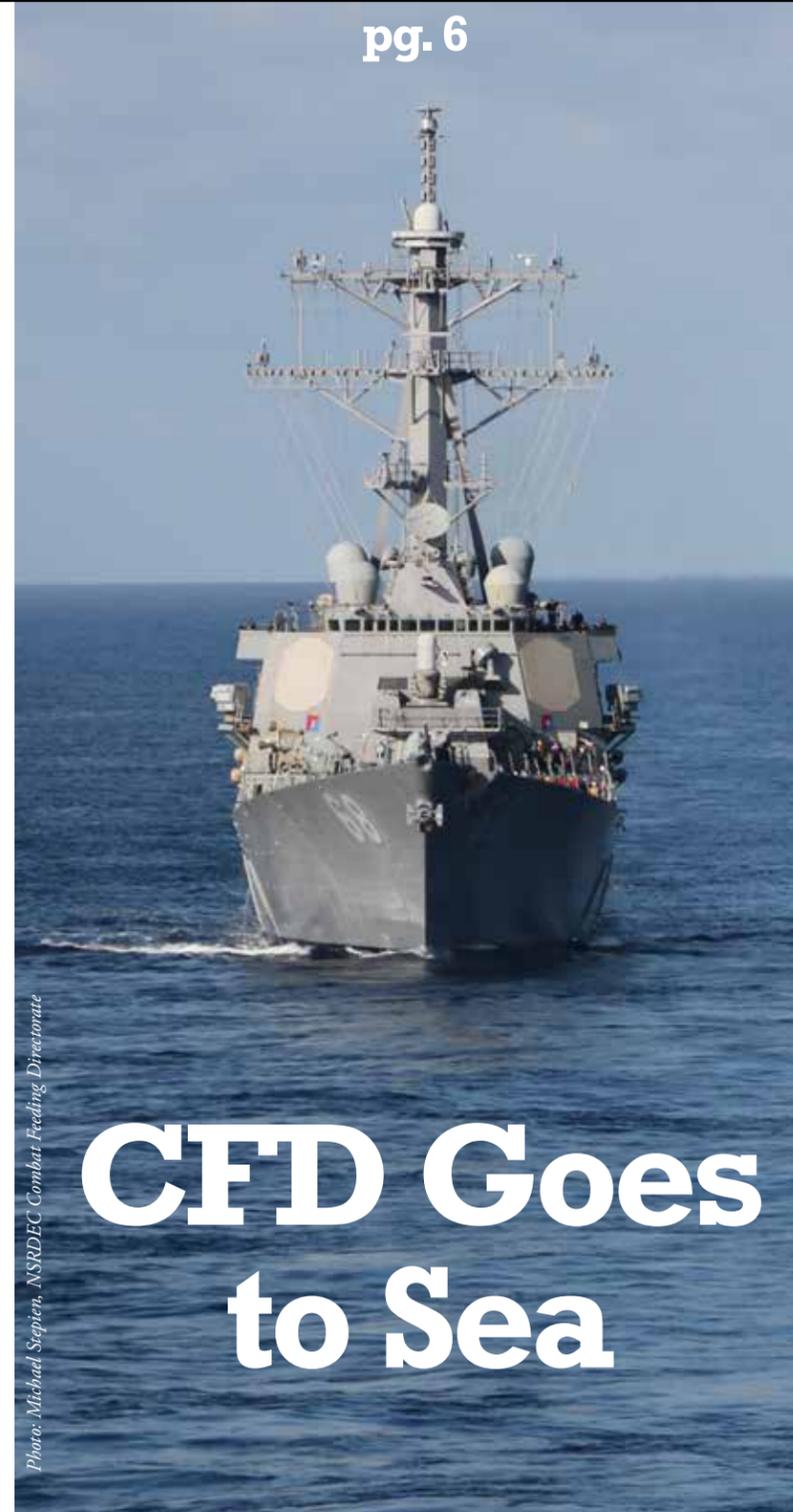
About this newsletter
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To subscribe to NSSC This Month, please contact Bob Reinert at robert.j.reinert.civ@mail.mil.

On the Web: www.army.mil/natick

Cover photo: Michael Stepien, NSRDEC Combat Feeding Directorate



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Safe dating presentation

On Feb. 29 from noon to 1 p.m. in the Grant Conference Center, Bldg. 80, the [SHARP](#) program will sponsor a safe dating presentation provided by the Military Family Life Consultant program. This presentation could be beneficial for the parents of adolescents. Topics will include safe use of social media, defining relationship boundaries, ensuring partners both have similar expectations, and more.

Vision Van

The next scheduled visit of the Vision Van will be March 1 from 8:30 to 9:30 a.m. behind the Doriot Climatic Chambers. Please remember that to order prescription safety glasses, you must have three things: a valid prescription less than two years old (unless the prescription indicates an annual requirement), a purchase request, and your credit card holder must be present.

Mobile Library visit

The next visit of the [Natick Mobile Library](#) will be in Parking Lot B from 11:30 a.m. to 1:30 p.m. on March 2. There is a selection of popular fiction, selected non-fiction, DVDs and audio books. Library representatives will also do their best to fulfill special requests, such as a particular title, author, subject area, or genre type. This regular visit occurs on the first and third Wednesday of every month.

Financial resiliency workshop

This month's workshop, "ID Theft Prevention and Protection," will take place from noon to 1 p.m. March 2 at the Lord Community Center, Bldg. 32. Each year, millions of Americans have their identities stolen. This can affect credit and finances. Sue Katz of [American Consumer Credit Counseling](#) will present this free seminar to empower consumers to protect themselves against identity theft and to minimize the damage it can cause. Registration is required by email at diane.k.magrane.civ@mail.mil.

Lunch and Learn

On March 17 from 11:30 a.m. to 12:30 p.m. at the Lord Community Center, Bldg. 32, the Family Advocacy Program will partner with the Military Family Life Consultant program to provide a presentation titled "Taking Charge of Anger in Relationships." Feel free to bring your lunch. Contact Douglas Lehman at (508) 233-4798, or douglas.h.lehman2.civ@mail.mil to register.



Photo: John Harbour, USAG Natick Public Affairs

To kick off Natick's Army Emergency Relief Campaign, which runs March 1-May 15, the U.S. Army Garrison Natick leadership team gathered to make their contributions. Flanking Lt. Col. Ryan Raymond, garrison commander, are Deputy Garrison Commander Sean Lehane and Command Sergeant Major Erika Gholar.

EFMP information event

On March 22 from 11:30 a.m. to 12:30 p.m. at the Lord Community Center, Bldg. 32, the Exceptional Family Member Program will sponsor [Family Ties of Massachusetts](#) for a presentation about regional resources for families of children and youth with special needs. Please contact Douglas Lehman at (508) 233-4798, or douglas.h.lehman2.civ@mail.mil to register.

Military family life

There is a Military Family Life Consultant assigned to [Wellesley](#) from now until the end of April, who is available to NSSC active-duty Soldiers and their families. The MFLC program provides confidential, short-term counseling on or off the installation at no charge. Contact ACS for more information, or call the MFLC directly at (781) 206-6304.

Retirement class

For the first time, the NSSC workforce will be offered retirement briefings conducted by an [ABC-C](#) counselor. These briefings will provide information to help you prepare for your retirement, and they are especially recommended for anyone considering retirement within the next five years. The FERS briefing will be held March 17 from 8 a.m. to 2 p.m. The CSRS briefing will take place March 18 from 8 a.m. to 2 p.m. Both briefings will take place in the Grant Conference Center, Bldg. 80.

Garrison town hall held

Awards presented at USAG Natick 'All Hands'

By Bob Reinert, USAG Natick Public Affairs / NATICK, Mass. (Feb. 12, 2016)

The new director of the [Natick Soldier Research, Development and Engineering Center](#) served as guest speaker Feb. 11 at the [U.S. Army Garrison Natick](#) town hall.

Doug Tamilio, a native of Beverly, Massachusetts, told those assembled at Lord Community Center that NSRDEC scientists and engineers couldn't accomplish their important work for Soldiers without the garrison's help.

"There are six Army laboratories," Tamilio said. "We're the only lab that deals with Soldiers. What the team here has done over the years is provided Soldiers with capabilities unparalleled in the world."

Tamilio pointed out that the gap has closed while America has been involved in recent conflicts abroad, however.

"While we've been busy, some of our adversaries have gotten really smart," Tamilio said. "We've got to provide Soldiers with leap-ahead capability that we haven't seen."

[Lt. Col. Ryan Raymond](#) emphasized a team approach to garrison employees.

"We're here to serve Soldiers," Raymond said. "We have a great, professional staff, and we're doing great work."

Among highlights since the last town hall, Raymond mentioned serving the Thanksgiving meal to Soldiers, the Jingle Bell Run, renovations to the second floor of Building 1, a Vietnam remembrance in association with Veterans Day, the installation of new windows around the installation, and the renovation of Hunter Auditorium.

In particular, Raymond focused on the Energy Savings Performance Contract, which has produced dramatic results at USAG Natick. He noted that Natick was rated No. 5 among the 78 Army installations worldwide.

"Given the fact that we've got the [Doriot Climatic Chambers](#) and some pretty high-consumption facilities here, that's pretty amazing," Raymond said. "And that's even though we live in a high-cost-of-living area where energy doesn't come cheap and we're not yet able to provide our own energy."

When compared with the baseline year of 2007, said Raymond, Natick was unmatched.



Photo: David Kamra, NSRDEC Strategic Communications

Lt. Col. Ryan Raymond, accompanied by Command Sgt. Maj. Erika Gholar, congratulates Peter Johnston Feb. 11 on his 35 years of government service at the USAG Natick town hall.

"We're the No. 1 installation in the Army," Raymond said. "We have had the greatest reduction in energy consumption of any installation in the Army."

The town hall began with the presentation of awards. Length of service certificates went to: Scott Whitney, 10 years; David Dufresne, 15 years; Peter Johnston, 35 years; John McHugh, 35 years; and John Pfeiffer, 40 years. Walter Ulrich and Stuart Taylor received certificates of appreciation.

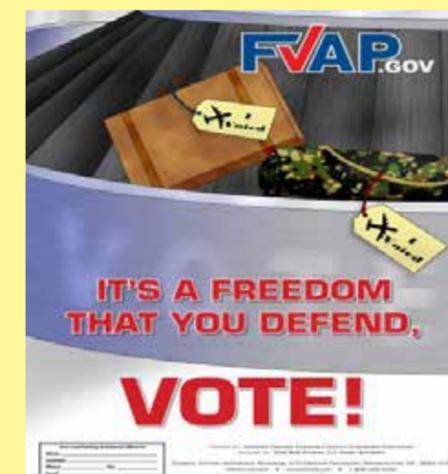
Voting in upcoming primaries

Don't miss your opportunity to vote in the upcoming primary elections! Register now and request your absentee ballots at www.FVAP.gov.

If want to register to vote, visit www.vote.usa.gov now to complete a registration application and request your absentee ballots for the Presidential preference primaries (P) and State primaries (S). To register and request your ballot, complete the Federal Post Card Application (FPCA) using the FPCA on line assistant, www.fvap.gov/military-voter/registration-ballots, or fill

out the PDF www.fvap.gov/uploads/FVAP/forms/fpca2013.pdf. You may also pick up a hard copy from your unit voting assistance officer or your installation voting officer, Marion Sanford x4020, Bldg. 1, Room 009A.

More information on FVAP, or assistance with the absentee voting process, visit www.FVAP.gov, or call FVAP at 1-800-438-VOTE, or DSN 425-1584 (CONUS). You may also wish to visit FVAP on Facebook.com/DoDFVAP, or Twitter@FVAP (mail to: Twitter@FAVP).





The capability of the ECD to provide warfighters higher-quality rations not only improves morale in combat, but may also result in a substantial reduction of the need to purchase expensive fruits and vegetables due to the shelf life increase.



CFD Goes to Sea

Combat Feeding helps Navy keep fruits, vegetables fresh

By Michael Stepien, NSRDEC Combat Feeding Directorate/ NATICK, Mass. (Feb. 18, 2016)



Background: A destroyer approaches for resupply. Clockwise from immediate left: Military Sealift Command vessel (U.S. Navy photo); fresh fruits and vegetables ready to be loaded; workers load produce into refrigeration container; a destroyer pulls alongside Patuxent for resupply; head of lettuce on right shows benefit of using ECD.



For Sailors deployed at sea, incorporating fresh fruits and vegetables into their daily diet is a complicated process.

Navy ships deploy for months at a time, which makes it difficult to provide crew members the nutrition provided by high-quality fruits and vegetables. The [Combat Feeding Directorate](#) recognizes the vital need to ensure all warfighters receive optimal nutrition, so a CFD team member was recently deployed upon a [Military Sealift Command](#) ship to collect data and monitor recently installed Ethylene Control Devices, or ECDs.

The MSC is a civilian organization of mariners responsible for providing logistics support to [U.S. Navy](#) ships. Part of the mission of the MSC is to provide fresh fruits and vegetables to Sailors who have been deployed at sea for an extended period of time.

As produce ripens, it creates ethylene, a gas that shortens the shelf life of certain fruits and vegetables. Removing ethylene from an enclosed environment containing fresh fruits and vegetables has shown to extend their shelf life, and the ECD is a new product containing a layer of ozone that essentially destroys ethylene in the air.

While at sea, the CFD set up two refrigeration containers with an identical distribution of apples, tomatoes, kiwis, broccoli, lettuce and avocados. The control container without ECD was monitored for three weeks, as was the test container containing the ECD.

A number of measurements and air samples were taken throughout the ship's deployment, and at the final port, the containers were opened and the crew had the opportunity to evaluate the difference between the fruits and vegetables. The set that was stored inside the refrigeration container with the ECD was recognized by the crew to have a noticeable, positive difference versus the control set, which demonstrates the potential value the ECD may be able to provide the military in future capacities.

Evaluating the ECD at sea proved to be invaluable, as numerous processes were observed onboard the ship that provided feedback as to the best use of the ECD onboard MSC ships. Also, the observations at sea were helpful in identifying potential issues with transitioning the ECD technology to the Army for use in [Multi-temperature Refrigerated Container Systems](#). By troubleshooting the ECDs in an operational environment, the Army will benefit from the knowledge gained and ensure a smoother transition to future fielded units.

Ethylene control is a capability that provides warfighters higher-quality rations, which not only improves morale in combat but may also result in a substantial reduction in frequency of resupply. In addition, this cutting-edge technology ensures our warfighters receive the nutrition they need during their deployments to optimize their performance on the battlefield.

No Place Like Dome

Virtual reality at Natick

By Jane Benson, NSRDEC Public Affairs / NATICK, Mass. (Feb. 24, 2016)

For researchers at the [U.S. Army Natick Soldier Research, Development and Engineering Center](#), there just may be no place like dome.

Thanks to its new virtual-reality dome, NSRDEC's [Cognitive Science and Applications Team](#) will be better able to study the impact of real-world operational situations on a Soldier's cognitive abilities and performance.

"The new VR laboratory will provide the Cognitive Science and Applications Team the ability to conduct research using more operationally relevant scenarios while still maintaining experimental control in our studies," said Dr. Caroline Mahoney, team leader for NSRDEC's Cognitive Science and Applications Team. "This capability brings our tightly controlled laboratory work one step closer to the field/operationally relevant environment."

The concave virtual-reality system provides a full 180-degree horizontal field and uses high-density, front-projection to create a high-resolution, visual world. The system enables participants to have immersive experiences in seamless virtual environments, which are modeled after real-world locations.

"This NSRDEC virtual reality capability affords novel applied, interdisciplinary science and technology activities that close traditional translational gaps between laboratory and field," Mahoney said. "The integration of multiple input modalities, along with multisensory feedback, increases the realism, immersion and engagement on behalf of users subjected to prolonged, workload-intensive activities."

"These novel integrations provide unprecedented opportunities to monitor and optimize human behavior during real-world task execution, and to evaluate and predict the impact of innovative human-systems technologies on operational performance."

In the virtual dome, users can interact and alter the environment through hand-held and weapon-based devices, which control movement, orientation and weapon aiming.

"Individual-level behavior can be elicited through immersive, scripted scenarios, and measured through location and orientation tracking, eye tracking, physiology and neurophysiology," Mahoney said.

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The virtual dome will enable researchers to assess the impact of the environment on Soldier cognition, including decision-making, spatial memory or wayfinding. NSRDEC researchers will also be able to assess the impact of new equipment on cognitive abilities.

"For example, the Cognitive Science and Applications Team is currently working with Dr. Dave Darkow and the Mission Information Team to develop metrics for measuring cognitive workload during mission tasks and will use these tasks to measure the impact of new technology on Soldier cognition in operationally relevant environments," Mahoney said.

NSRDEC and outside equipment developers will eventually use the [Cognitive Science Team](#)'s virtual dome data to aid in the design and development of Soldier technology and equipment.

In the future, additional and improved capabilities will be incorporated into the virtual dome. The future additions will include whole-body motion tracking, low-frequency vibration and directional wind. Vibro-tactile collision feedback -- which combines vibration and touch to help give participants a physical sense of constraints in a virtual environment -- will also be included.

"In the coming years, additional input modalities and multisensory feedback will be developed and integrated into the system to increase immersion," said Mahoney.

Overall, the dome will provide extensive new insights into the thinking processes of Soldiers in the field.

"Our new, virtual-reality capability provides unprecedented translational value to basic and applied cognitive sciences, allowing us to bridge the gap between highly controlled laboratory research and the inherent richness, dynamics and complexity of real-world Soldier experiences," said Dr. Tad Brunyé, a member of NSRDEC's Cognitive Science Team.

The concave virtual-reality system provides a full 180-degree horizontal field and uses high-density, front-projection to create a high-resolution, visual world. The system enables participants to have immersive experiences in seamless virtual environments, which are modeled after real-world locations.



Photo: David Kamm, NSRDEC Strategic Communications



Photos: David Kamm, NSRDEC Strategic Communications

Science Is Brewing

Early research at Natick sets foundation for advances

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

Fermentation research by Jason Soares -- a chemical engineer at the [Natick Soldier Research, Development and Engineering Center](#) -- is at the heart, or rather the gut, of NSRDEC's early research to improve Soldier health and performance.

Early research is an important part of the mission of NSRDEC, laying the groundwork for discovery and innovation to improve Soldier protection and quality of life.

Soares, who works in NSRDEC's [Warfighter Directorate](#), is investigating gut bacteria, focusing on the bio-fermentation aspect. NSRDEC chemical engineer Laurel Doherty is Soares' colleague and does a lot of the hands-on work. This early research in gut bacteria will eventually be used to improve rations to help Soldiers combat the effects of stress and to improve their overall performance.

"Fermentation gives you a tool to mimic what is happening in the gut in a lab setting," said Soares. "An actual colon has three domains. Our fermentation system can be set up so we can actually see and experiment under the conditions of all three domains of the colon.

"Part of our work was actually developing that model to use as a tool for our research. So we are not only studying fermentation, we are, at the laboratory level, developing the tools to make our fermentation more relevant. We are developing the methods to study the specific problem that we are trying to address."

Soares and his NSRDEC colleagues work closely with [U.S. Army Research Institute of Environmental Medicine](#). USARIEM is studying the effects of switching to a diet of Meals, Ready-to-Eat, which Soldiers often eat in remote or combat situations. The findings will be shared with NSRDEC's Combat Feeding Directorate to provide insights into ration improvements.

"We can factor in the unique stresses faced by the warfighter," said Soares. "We partner with USARIEM, and they provide us the samples that enable us to do our warfighter-centric research. The work we are doing is related to USARIEM's 21-day MRE study. So the stressor is a rapid change in diet. This mimics the training cycle that Soldiers go through."

Opposite, Jason Soares, a chemical engineer at Natick Soldier Research, Development Engineering Center, is investigating gut bacteria, focusing on the bio-fermentation aspect.

The samples from the study will enable Soares to observe how the stress of dietary changes impacts gut bacteria.

"We will be able to understand what bacteria play a role in that stress state," said Soares. "Then we'll see if we can introduce foods that will help them overcome the stress of having to change their diets immediately. People do adjust to changes



"We can see how this research will help Soldiers down the road."

Laurel Doherty

in diet over time, but during that recovery time, warfighters still have to perform their missions and multiple duties."

The rapid change in diet can cause gastrointestinal problems.

"Bacterial diarrhea, brought about by GI stress, is one of the top infectious diseases for warfighters," said Soares. "This type of illness can have a major effect on ability to carry out a mission due to the complications that arise from it. So, what we're doing at the lab level is gaining knowledge. Our outcome is going to be the knowledge that we will share with Combat Feeding, who can then make exploratory ration components that could potentially be used by USARIEM in a clinical trial."

Preliminary research and the development of a knowledge base are essential steps in the research and development process -- steps that make everything that comes after them possible.

"What Laurel and I are hoping to get out of our work is information that will form the basis for future research," said Soares. "It's a very important step in the process, but it is a step that isn't always visible. Yet this underlying science is really important for getting solutions to the Soldier."

Gut bacteria research is particularly relevant to the warfighter because what happens in a person's gut can affect overall physical and cognitive function.

"What happens in your gut can actually affect your brain," said Soares.

"It has been linked to depression, anxiety and memory," said Doherty.

"It affects your immune system and health," said Soares.

Soares hopes that in a few years, he and his NSRDEC colleagues will develop a fermentation tool to study the small intestine, as well.

"We will link the new tool to the large intestine/colon model," said Soares. "This tool could further our research into the impact of stress and diet on the warfighter."

Although gut bacteria research is being widely performed, NSRDEC's research is specific to the warfighter.

"What I really like about this work is to do my part in helping the warfighter by helping him or her to feel better, perform better, because what they do is amazing," said Soares. "The gut work is great because we have that kind of connection to the warfighter. I love that we can tie our work to a warfighter-centric problem and know that what we are doing in the long term can benefit the warfighter."

"I love the fact that this project is a direct path addressing a real and defined need," said Doherty. "We can see how this research will help Soldiers down the road."

"The knowledge always leads to something," said Soares. "The gut microbiome could be a huge part of our future health strategies."

Cold Truth

USARIEM researcher offers clues for coping with winter weather

By Mallory Roussel, USARIEM Public Affairs / NATICK, Mass. (Feb. 19, 2016)

Whether Soldiers training in the snow or civilians jogging in the chilly morning, many people find working in winter weather miserable.

The risk of frostbite makes winter weather even less appealing. Yet, Dr. John W. Castellani, a researcher from the [U.S. Army Research Institute of Environmental Medicine](#), had some tips and clues for facing the cold weather.

Castellani of USARIEM's [Thermal and Mountain Medicine Division](#) provided "Cold Weather Clues" as part of a January and February social media campaign USARIEM posted every Tuesday. He provided fun facts, informational videos and myth-busters about preventing cold weather injuries and dressing for the winter. With rising temperatures, however, Cold Weather Clues is coming to a close. Here are seven of Castellani's tips for enhancing health and readiness in the cold:

1. It's never too cold outside. Just be prepared.

"There's no weather where you can't go outside, exercise and play," Castellani said. "As long as you have the right knowledge, preparation and gear, you can go out and enjoy the environment!"

2. Determine the risk of frostbite with the wind chill temperature index.

According to Castellani, the [wind chill temperature index](#) combines wind speed and air temperature to determine the risk of frostbite and the time it takes exposed facial skin to freeze. Castellani said the risk of frostbite is relatively low in most people at air temperatures above 5°F.

What about when people are exercising in the cold? "Running and skiing produce wind, and they should be used to determine the WCTI," Castellani said.

3. Wear the appropriate amount of layers when dressing for the cold.

The multiple layers people need to stay warm outside can be overwhelming. It's one of the reasons many people choose to remain indoors. In the first Cold Weather Clues video, Castellani taught viewers how to dress for winter. He said people typically need a base layer, an insulating fleece layer, a waterproof and windproof softshell layer, and a downy protective layer in temperature below zero.

"You would adjust these layers based on how much work you're doing. If you're working really hard, you don't want to wear as many layers, so you don't sweat as much. But you have to adjust your layers based on you, not on what someone else tells you. If you sweat a lot, wear fewer layers. Once you stop working and you're still outside, put on your layers to stay warm. You add gloves, hats and scarves to readjust your other clothing.

4. When in doubt while dressing for the chilly weather, follow the COLD acronym.

Castellani advises people to pay attention to four things when selecting winter gear:

- Keep it - Clean
- Beware - Overheating
- Wear it - Loose and in Layers
- Keep it - Dry

5. Wear a hat—but not for the reasons you think!

It's a prevalent myth that people should always wear hats because heat escapes through their heads. This implies people don't need to wear those other protective layers, as long as they wear hats. Castellani debunks that myth.

"You do not lose most of your heat through your head," Castellani said. "If that were the case, you could sit outside naked but still be OK if you limited heat loss from your head."

"There is no reason to fear winter and cold weather, as long as you are prepared. It is a beautiful time of the year, and I hope many of you will get outside to enjoy the season."

Dr. John Castellani



6. Falling through the ice is not a death sentence.

While falling through ice is frightening, many people believe it can cause someone to die within minutes. Castellani has a different clue.

"You will not die in minutes from hypothermia if you fall into ice water," Castellani said. "For the average person, it takes 30 to 60 minutes for your core temperature to fall to life-threatening levels."

7. Protect fingers, toes, nose and ears, which are most susceptible to frostbite.

"Frostbite occurs when tissue temperatures fall below freezing," Castellani said. "An important warning sign is numbness or a 'wooden' feeling. Be especially careful of contact frostbite! Touching metal objects and handling liquids in very low air temperatures can cause frostbite. Fuels have a very low freezing point (-40°F), and contact with these super-cooled liquid fuels can cause instantaneous frostbite. Use proper protective equipment!"

"There is no reason to fear winter and cold weather, as long as you are prepared. It is a beautiful time of the year, and I hope many of you will get outside to enjoy the season."

Photo: David Kamm, NSRDEC Strategic Communications



Photo: CDC

Pound for Pound

Army researches dependents of military retirees in ongoing weight-loss study

By Mallory Roussel, USARIEM Public Affairs / NATICK, Mass. (Feb. 3, 2016)

Making healthy New Year's resolutions is easy. Following them is hard. This year for military retirees, however, there's a new option for learning healthier lifestyles.

Researchers from the [U.S. Army Research Institute of Environmental Medicine](#) and [Tufts University](#) launched a weight-loss program in 2015 for adult dependents of active-duty military personnel. They are now researching adult dependents of retirees for their study.

The randomized trial, called Healthy Families, Healthy Forces, or HF2, measures the effectiveness of two weight-loss programs. According to Lt. Col. Asma Bukhari, the study targets retirees and dependents and "addresses the eating environment at the Soldier's home."

"Collaborating with Dr. Susan B. Roberts and Dr. Sai Krupa Das at Tufts University is a great opportunity for us to further investigate evidence-based weight-loss strategies for our military beneficiaries," Bukhari said.

The Tufts researchers bring more than 30 years of research expertise in the weight-loss arena. Bukhari, a research dietitian with USARIEM's [Military Nutrition Division](#), said this study is in line with Army Medicine's vision on addressing Soldier "life space" and moving from a health care system to a system of health.

"Healthy weight management continues to be a top health concern for Americans," Bukhari said. "This is an opportunity for military retirees and their families to get support for healthy eating and weight management. We also hope the study will provide important insights for the future health of all military families."

The HF2 study originally targeted Hanscom Air Force Base and U.S. Coast Guard First District military families. Over the last year, participation has expanded to include retirees at Fort Devens in Massachusetts, Navy Recruiting District New England, the U.S. Coast Guard Air Station Cape Cod and Fort Drum, New York. Bukhari said widening the targeted group has the advantage that the results will be more "broadly relevant."

"We are finding military personnel and their families have

challenges that can influence their ability to manage their weight," Bukhari said. "Permanent change of station, moves, training requirements and deployments are common issues military families face, which are rare in the civilian population. On the other hand, while military retirees are older and may have more health issues, they tend to be more stable and move around less."

The two-year study compares current best dieting practices with Tuft's innovative [Healthy Weight for Living Program](#), which recommends

eating a diet rich in protein, dietary fiber, low glycemic index carbohydrates and low-calorie foods. Yet HF2 offers more than weight-loss strategies. It teaches participants how to change lifestyle habits sustainably for long-term benefits.

HF2 features group support classes and free education that teach fun ways to plan menus, shop for groceries and self-monitor weight, diet and activity.

"We approach weight loss as an opportunity for problem-solving," Bukhari said. "We have group sessions to encourage a fun sense of community and help volunteers learn healthy options for recipes, no-cook meals, eating out and holiday dishes."

Bukhari said many times people do not know where to start when it comes to healthy eating. She said quick weight-loss programs can often be expensive and frustrating, with no real long-term benefits. HF2 focuses on changing behaviors that could also feed into USARIEM's mission to develop programs enabling warfighter health-readiness.

"Military retiree health is the end result of a healthy lifestyle introduced and promoted while serving the military," Bukhari said. "We believe, by including military retirees in the study population, we will be able to further successful weight management in all military families."

"Military retiree health is the end result of a healthy lifestyle introduced and promoted while serving the military."

Lt. Col. Asma Bukhari, USARIEM

Airborne ...

Army board convenes for inaugural meeting

By Geneve Mankel, Paraglide /FORT BRAGG, N.C. (Feb. 1, 2016)



"That's what our mission is, we're supposed to speak with one voice for the Army to bring coherence to the topic of conventional airborne operations."

Bruce Parker, Army Airborne Board secretary, said the formation of the board was a long time coming. For at least 10 years, the airborne community has asked to have a lead that can act as a spokesperson and speak for all conventional airborne forces.

"Commanding generals throughout the force sent requests through [Forces Command](#) up to the [Department of the Army](#), and the board was approved in August by the secretary of the Army," Parker said.

Army directive 2015-33 designates an Army lead for conventional airborne forces. "That [designation] is by position. It will always be the XVIII Airborne Corps commander. He is the senior paratrooper for conventional airborne forces," Parker said.

The board is made up of 10 voting members — all two- or three-star generals — including the chairman, and 71 non-voting members, made up mostly of colonel or colonel equivalents.

"Most Army major commands are represented on this Army Airborne Board as voting members," Townsend said.

Within the board, six committees, each led by a general officer, take on issues and provide recommendations that are briefed to the board and opened to a vote, Parker said.

"We created these committees ... where we'll farm these issues out for study. Those committees will be in power to bring solutions and issues to the board," Townsend said.

Once recommendations are voted on, the board will present them through the appropriate Army command, agency or organization to the Department of the Army for review, disposition and implementation.

The newly formed Army Airborne Board held its inaugural meeting on [Fort Bragg](#), North Carolina, Jan. 28.

Chaired by [Lt. Gen. Stephen J. Townsend](#), [XVIII Airborne Corps](#) and Fort Bragg commanding general, the board, designated by the Army secretary, provides conventional airborne forces the ability to create unity of effort in addressing concerns related to doctrine, organization, training, materiel, leadership and education, personnel and facilities.

"I'm told this is only the second secretary of the Army-designated board to bring coherence to a topic," Townsend said.

Photo: U.S. Army



THOR3

Subsistence helps Army Special Operations nutrition program

By Michael Tuttle, DLA Troop Support PAO/ PHILADELPHIA (Feb. 8, 2016)

Photo: U.S. Army

Among the powers that comic book hero Thor is known for is his high resistance to injury and the ability to regenerate wounded portions of his body, making him almost invulnerable.

THOR3 – the Tactical Human Optimization, Rapid Rehabilitation and Reconditioning program – is helping the Army’s most elite Soldiers improve their resilience and overall performance.

And when the [U.S. Army Special Operations Command](#) decided to add the nutrition element of THOR3 to the menu at a [Fort Bragg](#), North Carolina, dining facility, they asked [Defense Logistics Agency Troop Support](#) to help.

THOR3 has been around since 2009 and is a holistic approach with customized strength and conditioning, rehabilitation and nutrition programs to improve the performance of Special Operations Soldiers, according to a USASOC release.

A team of employees from the Subsistence supply chain advised USASOC on how to add food items that are scientifically proven to improve Soldier performance to the DFAC menu at the [Special Warfare Center and School](#).

The facility was a test site for a study comparing THOR3 nutrition to current Army menu standards. Another Fort Bragg DFAC was a control site with normal food service operations.

The Subsistence team began to provide the technical and industrial expertise to help determine what food items to include in September 2014, before the study began.

“We were all brought in so early in the process,” said Kelly Parker, Subsistence

Opposite, a U.S. Soldier assigned to 1st Battalion, 10th Special Forces Group (Airborne) salutes his fellow Soldiers while jumping out of a C-130 Hercules aircraft over a drop zone in Germany, Feb. 24, 2015. Above, SOF aerial gunnery at Fort Bragg.

contract specialist. “That’s what we offer to the services, is this partnership.”

USASOC started with a broad list, wanting the best fruits, antibiotic-free chicken and grass-fed meat. The Subsistence team worked to translate that broad list into specific items that fit within USASOC’s food budget, said Army Lt. Col. Debra Hernandez, a registered dietitian and Subsistence nutritionist.

The list included retail items, like performance food bars, that the prime vendor, which supplies food to the Fort Bragg DFAC, didn’t already provide. Quinoa is another desired item but comes from the Andes Mountains. So it’s not Berry Amendment friendly, which requires DLA to procure items made in the U.S.



Photo: Sgt. Jessica M. Kuhn, U.S. Army

“We never said ‘no,’” Parker said. “If the [customer] wants something, I’m going to get it. We just have to do it the right way.”

The Subsistence team researched the foods and their sources, negotiated pricing and, to increase their buying power, invited other services to add some healthy food

items to their menus, Parker said. Then they presented USASOC a menu of options to get the food items they wanted and the associated costs.

The THOR3 menu was launched in April, and the study ended in January. The results are now being analyzed, determining how much food was thrown out, nutritional intake, cost comparison and more. The study is scheduled to be published in approximately a year.

The healthy foods tend to cost more. But that may be outweighed by the long-term cost savings on Soldier health care and by eliminating some of the unhealthy foods from the menu, Parker said.

One benefit that’s already apparent from available feedback, Parker said, is that DFAC employees are happier making more food from scratch instead of serving processed foods.

The demand for healthier eating options is consistent throughout the food service industry, Hernandez said. This study may help lead the way to adding

more healthy food to DFACs throughout the services.

Implementing the THOR3 menu was a joint effort that also included the [Army Joint Culinary Center of Excellence](#), [U.S. Army Research Institute of Environmental Medicine](#) and the [U.S. Army Natick Soldier Systems Center](#), Hernandez said.



Photo: U.S. Army

Opening the Door

Army to fully integrate women into MOSs, combat units

By J.D. Leipold, Army News Service/ WASHINGTON (Feb. 2, 2016)

Acting Army Secretary Patrick Murphy and Army Chief of Staff Gen. Mark A. Milley told lawmakers the Army is opening the door to every job a Soldier can hold regardless of gender.

"This is the right decision for our Army," said Murphy, testifying before the Senate Armed Services Committee. "The personal courage and selfless service made by women in our Army is no different than that exhibited by our men ... We owe them

the respect and honor to offer them the opportunity to succeed anywhere in our Army based upon only the merits of their performance."

Murphy said that after several years of extensive research, collaboration and practical evaluation, the service came to three primary conclusions — that women are capable of performing every job in the Army; that the maintenance of high standards, performance and professional conduct will be based solely upon what the

position requires and nothing else; and that leadership is critical to integration. Murphy added that full integration will likely take several years as the Army adjusts both to the culture and to growing individual skills within the force.

"For the record, I fully support opening military occupational specialties [MOSs] in the United States Army to all Soldiers regardless of gender," Milley said. "And I believe full integration of women in all career fields will either maintain, sustain

or improve the overall readiness ... and our capability of the force if ... and only if, we maintain and enforce rigorous combat readiness standards and we maintain a merit-based, results-oriented organization, and we apply no quotas and no pressure ... We will not impose quotas on ourselves."

Milley said that once approved by Defense Secretary Ash Carter, the Army would execute what he called a "very deliberate, methodical and transparent process" to include developed and published measurable gender-neutral standards based on combat readiness requirements.

"I estimate that effective female integration into infantry, armor and special forces will require no less than one to three years of deliberate effort in order to develop the individual skills and grow our leaders," Milley added. "The Army is currently in the process of ensuring our facilities comply with law

and DOD policies for access and gender-neutral living standards at both our basic and individual training."

The Army will integrate women through a "leader first" approach, with women able to serve as infantry and armor officers later this year in designated brigade combat teams.

The Army will integrate women through a "leader first" approach, with women able to serve as infantry and armor officers later this year in designated brigade combat teams.

The chief of staff said this spring that female cadets and officer candidates, who meet the gender-neutral standard, will be given the opportunity to request either infantry or armor branches.

Milley noted that since 2011, the Army has opened nine MOSs to women and 95,000 positions in combat arms units. Additionally, the 160th Special Operations Aviation Regiment was opened to women in 2014 and Ranger School was integrated last year.

"These experiences have informed and enabled the Army to successfully implement gender integration and increase our combat readiness," Milley said. "Make no mistake about it, this process is going to have challenges, but if we proceed with a methodical and deliberate execution, like all previous integration efforts, it's my belief the Army will be successful."

Women's History in the U.S. Army

<p>1942- Congress approves bill to create the Women's Army Auxiliary Corps, renamed the Women's Army Corps in 1943.</p>	<p>1950- The first direct commissions are offered to women college graduates as second lieutenants in the Organized Reserve Corps.</p>	<p>1970- President Richard Nixon selects two women for promotion to brigadier general.</p>	<p>1983- Women are allowed to fly helicopters for the first time in an armed conflict. Women also serve as military police, intelligence officers, mechanics, and logistics specialists.</p>	<p>2005- Sgt. Leigh Ann Hester becomes the first woman to earn the Silver Star medal, the third highest military decoration for valor, for direct combat action.</p>	<p>2013- Army describes plans for integrating women into combat positions.</p>
<p>1948- President Harry S. Truman signs Executive Order 9981 into law which established the President's Committee on Equality of Treatment and Opportunity in the Armed Services.</p>	<p>1965- The first WAC officers are assigned to headquarters in Vietnam.</p>	<p>1978- The WAC is officially inactivated as a separate Corps.</p>	<p>1997- Lt. Gen. Claudia Kennedy becomes the first woman to attain the rank of lieutenant general in the U.S. Army.</p>	<p>2008- Gen. Ann E. Dunwoody becomes the first female four-star general in military history and also became the first female to lead a major Army command, Army Materiel Command.</p>	<p>2015- Two women become the first to graduate Ranger School.</p>

Infographic: Teanyia Mouton, USAG Natick Public Affairs

“It wasn’t just my brother’s country, or my husband’s country; it was my country as well. And so this war wasn’t just their war; it was my war, and I needed to serve in it.”

Beatrice Hood Stroup



Women's History Month March 2016

Members of the Women's Auxiliary Army Corps admire the new 15th AF shoulder sleeve insignia during World War II.

