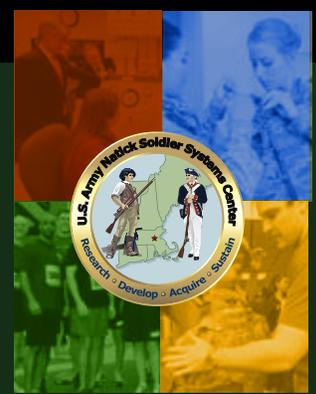


July 12, 2013

NSSC **This Week**



Natick Soldier Systems Center Public Affairs Office

Be sure to
see Natick featured
on the History Channel,
July 17, 9pm

'Only in America'

Gittin' it done in Natick

Also inside

- Innovating through 'hackathon'
- Gender neutral
- Researcher receives award
- Greata holds town hall
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- Presenting the Colors at Fenway

Photo credit: David Kamm, NSRDEC Photographer

"Larry the Cable Guy" models a chest rig designed for him by Rich Landry, in background, during a Nov. 8, 2012, visit to the Load Carriage Design Lab while filming a segment at Natick Soldier Systems Center for his "Only in America" series. Rather than holding items Soldiers often carry in combat, such as ammunition, batteries, or multi-tools, Larry's modular chest rig was designed to hold his beer, cigars, lighter and TV remote control. The segment will air Wednesday, July 17, at 9 p.m. on the History Channel.



Photo Credit: David Kamm, NSRDEC Photographer

By Bob Reinert, USAG-Natick Public Affairs / NATICK, Mass. (July 10, 2013)

'Only in America'

Gittin' it done in Natick

When it comes to turning out the finest equipment in the world for American servicemen and women, no one else can "Git-R-Done" quite like the folks at the Natick Soldier Systems Center.

That's what "Larry the Cable Guy" discovered Nov. 8, 2012, when the comedian known for that blue-collar catch phrase brought the crew of his popular History Channel TV series "Only in America" to Natick Soldier Systems Center, or NSSC, for a visit. The segment will air Wednesday, July 17, at 9 p.m.

This wasn't the first experience with the military for Larry, an American history lover who uses humor to share information gleaned during his cross-country tours. The 49-year-old Nebraska native previously had shot his way through the U.S. Army Sniper School at Fort Benning, Ga., so it surprised no one to see him take a hands-on, lighthearted approach during his day-long quest to find out exactly what NSSC does for Soldiers.

Larry began his day at the Load Carriage Design Lab, which devised a modular chest rig to hold his beer, cigars, lighter and TV remote control.

"This is so awesome," Larry said.

He also had a look at the "Ironman" ammo carriage system, which holds 500 rounds for the M240B machine gun. The system was the brainchild of members of the Iowa National Guard.

"It just sounds cool," said Larry, "the Ironman."

Then it was on to the Thermal Test Facility, where he fired a laser through fabric and Plexiglas, had his clothes set ablaze, and helped extinguish them using a spray bottle.

"I love meeting the troops. I love seeing the things that they use out there and what they go through."

— Larry the Cable Guy

"Whoa! Holy mackerel!" said Larry as he watched a four-second burn test conducted on a manikin clad in a fire-resistant uniform. "Nothing caught fire! That's great. That's good technology. You help save lives of people."

After lunch, Larry went to the Warfighter Cognitive Performance Building at the U.S. Army Research Institute of Environmental Medicine to try out the Engagement Skills Trainer 2000, a weapon simulator that measures physical and cognitive performance. There, he shot against a female Soldier, which he found challenging.

"I just want to let everybody know watching this, honestly, you've seen me shoot on other

shows — I'm not a bad shot," Larry said. "But when you're out in the field and you've got to shoot in these conditions, it ain't easy."

"I'm trying to let people know how tough it is for those guys," he continued. "It seems like people forget they're out there doing this kind of work. It's not easy."

Next, Larry became a human test subject at the Doriot Climatic Chamber. Connected to a heart monitor, he climbed onto a treadmill wearing the Ironman and carrying the M240B as the tropic chamber temperature hovered around 108 degrees.

"It's very hot in here," said Larry, whose heart rate rose to 138 beats per minute and skin temperature climbed to 36 degrees Celsius. "I'm sweating already."

He then repeated the test wearing a microclimate vest that cooled him down.

"This is very thinning, this outfit," said Larry, joking as he was fitted to the vest.

Late in the afternoon, Larry sampled apple sauce from the Department of Defense Combat Feeding Directorate at Natick Soldier Research, Development and Engineering Center before meeting with Soldiers to wrap up his day at Natick.

"I knew it was going to be awesome," Larry said of the visit. "I love meeting the troops. I love seeing the things that they use out there and what they go through."

Be sure to watch
on the History Channel
July 17, 9PM

Innovating through 'hackathon'

By Alexandra Foran, NSRDEC Public Affairs / NATICK, Mass (July 11, 2013)

The U.S. Army Natick Soldier Research, Development and Engineering Center's Combat Feeding Directorate has signed a partnership intermediary agreement with Boston's hack/reduce, which held the first-ever mobile data "hackathon" with Department of Defense data.

The Natick Soldier Research, Development and Engineering Center, or NSRDEC, and the Combat Feeding Directorate, or CFD, hope that the outcome of the 24-hour event, which started June 28, at 6 p.m., will be a mobile application that can be utilized to display nutritional data for combat rations in a user-friendly way.

"This project, the hackathon, came about because we wanted to develop a Combat Ration nutrition website," said Julie Smith, a senior food technologist with the CFD. "We get a lot of inquiries from military dietitians, service representatives, warfighters, and a number of different individuals looking for information on the Meal, Ready-to-Eat; First Strike Ration®; Meal, Cold Weather; and Food Packet, Long Range Patrol."

While people may have questions about the nutritional makeup of the ration systems, CFD has found that there is a lot of incomplete information on the Internet from other sources and that the information is often inaccurate.

"We're hoping that by developing this mobile application, this will help lead our consumers to the correct information and hopefully decrease the number of external inquiries we have to respond to," Smith said.

Smith discussed app possibilities, like a scenario where "a military dietitian would utilize the nutrition information available within the

website and app to help a warfighter identify ration components that would be appropriate for performance fueling."

The dietitian would be able to identify ration components that meet the warfighter's nutritional needs before, during and after missions, as well as refueling for the next mission.

"We want it to be interesting and engaging for the warfighter to use, so it would be great if they could enter food items and see how they are meeting their nutritional goals," Smith said. "Maybe there could be a tool to help them meet their minimum caloric requirements so that they don't lose weight during field training exercises or deployments."

The Ration Analysis System, a Web-based database built by CFD in collaboration with the U.S. Army Research Institute of Environmental Medicine, helps CFD plan their menus, which are reviewed and approved each year by the Chief Dietitian of the Army, as directed by the Office of the Surgeon General. The nutritional information that is utilized for menu planning includes chemical analysis of ration components that are currently in procurement. Chemical analysis is very expensive, thus the collection of data for all ration components spans several years due to funding restrictions.

Currently, there are more than 775 records of data that will be utilized during the hackathon. This data consists of more than

30 nutrients including calories, protein, fat, carbohydrate, dietary fiber and a number of vitamins and minerals. This nutritional information can be found on the nutrition fact labels on every single component; however, you only have access to the nutrition information when you are consuming it. Therefore, without that specific label, it is tough to access information unless the user consults the CFD.

"At Combat Feeding we're not app developers, so how can we make it cool and interactive, such that the user actually wants to use it? You can put a website out there, but you need to make it fun in order for people to repeatedly use it," Smith said.

That is where Michael Brown, DOD Science, Mathematics and Research for Transformation Scholar and project lead for the hackathon came in. Brown saw the challenge that CFD faced in regards to transferring this important information to end-users and sought an innovative solution.

"There are dozens of opportunities for innovating with local partners," Brown said. "I'm interested in tapping into Boston's Innovation Economy and working with them to support the warfighter."

The opportunity for participation in the first-ever event of this caliber also includes major perks like monetary prizes. First-place winners will receive \$3,000, second prize \$2,000,

and third prize \$1,000. These prizes are made possible thanks to sponsors.

Plus, this specific hackathon event promotes synergy, as shown in its partial funding by the Massachusetts Technology Collaborative and Mass Development, both members of the Natick Soldier Systems Center's Science and Technology Board.

Smith hopes that the event will "provide nutrition education to warfighters and a valuable mission-planning tool to increase their performance."

As the warfighter continues to transition and change with the times, so, too, does the technology that needs to be utilized to assist each

and every warfighter. This is the first time the DOD has utilized an opportunity with hack/reduce, and other hack companies are willing and interested to work with government organizations. The success of this event may be followed by further use of companies such as hack/reduce in order to solve technologically challenging problems in support of Soldiers.

If interested in learning more about this particular event at hack/reduce (located at 275 Third Street, Kendall Square, Cambridge, Mass.), please call (617) 974-3593. Anyone interested in sponsorships, judging, speaking, or any other hack/reduce inquiries, please contact Adrienne Cochrane, hack/reduce Executive Director at adrienne@hackreduce.org.



Photo credit: David Kamm, NSRDEC Photographer

As U.S. Army Training and Doctrine Command continues to design the force of the future, it will also review the standards for all Soldiers — men and women alike — to support the future force.

Training and Doctrine Command, known as TRADOC, is currently leading two efforts, part of what is collectively called “Soldier 2020.” The first examines the physical demands of specific military occupational specialties, or MOSs, starting with those currently closed to women. The second studies the cultural and institutional effects of integrating women into those previously closed occupations and units.

The first effort, with support from the U.S. Army Medical Command’s U.S. Army Research Institute of Environmental Medicine, or USARIEM, is a three-year review of the physical standards required for MOSs across the Army — regardless of gender.

“Not only are these gender-neutral standards, but they’re also age-neutral and body-type neutral standards,” said Edward Zambraski, chief of USARIEM’s Military Performance Division. “In other words, it’s purely physical.”

Currently in the first phase of the gender-neutral physical standards review, TRADOC will begin by verifying the required tasks for each MOS, starting with branches with closed occupations: the Engineer, Field Artillery, Armor and Infantry branches.

Researchers from USARIEM will then use these task lists to determine the physical demands required to perform each task successfully.

According to Marilyn Sharp, USARIEM’s lead investigator for the project, once researchers analyze the physical demands required for a specific task, they will develop a task simulation, or a mock-up, of the real task to measure the effort required to perform the task successfully.

“Let’s say it’s a task that involved lifting a certain structure a certain distance and placing it someplace,” Zambraski said. “We would do the mock-up in our laboratories and take measurements on the subjects to see — how much strength are they using to do this, how much endurance are they using to do this, how long does it take them to do this — then we can quantify the task.”

The end goal, Zambraski said, is a set of predictive tests — whether it may be strength, endurance, fine-motor skills or a combination of several tests — to determine the right match for the right MOS.

“The idea would be to have a series of tests — relatively simple tests — that could be applied early on in a Soldier’s career — perhaps at the beginning or end of basic training — that would give information as to whether or not the Soldier would be physically capable of performing in that MOS,” Zambraski said.

Tom DeFilippo, TRADOC G-3/5/7 senior plans analyst, likened the concept of the predictive tests to a sort of physical version of the Armed Services Vocational Aptitude Battery, better known as the ASVAB, which would benefit Soldiers, their units and the Army overall.

Gen. Robert W. Cone, TRADOC’s commanding general, also took some time to discuss the command’s efforts regarding standards, success, and TRADOC’s efforts in Soldier 2020 during a recent professional development forum.

“I go up and talk to units all the time. I was talking to the 1st Cavalry Division, 101st Airborne Division and 3rd Armored Cavalry Regiment, and Soldiers are OK with this — as long as we maintain standards,” Cone said.

Cone said through a standards-based approach, success will not be defined by numbers, such as having five or 10 percent of women in infantry, but rather it will be defined as the opportunity for women to be able to serve. He cited some of the recently opened MOSs, including Bradley mechanic and Multiple Launch Rocket System, or MLRS, crewmember, where Pvt. Alexandra Seccareccio recently set the standard for all Soldiers.

“We had our first woman graduate from (MLRS) school with a 100 percent score — in everything,” Cone said. “And now, the key is getting them to the right units.”

Unit success also depends on a number

of additional factors, many of which are currently being examined through a gender integration study led by the TRADOC Analysis Center, or TRAC, in the second effort supporting Soldier 2020.

TRAC’s study, with support from the Army Research Institute, began in January and will use interviews, focus groups and surveys with leaders and Soldiers to look at the cultural effects of implementing full gender integration.

The study will analyze cultural factors — expectations, customs and social behaviors of the Army associated with integration — as well as institutional factors, which include Army processes and policies that may be affected or changed because of integration.

Most important, Kerekanich added, is the Soldiers’ perspective — listening to and capturing the challenges they identify and polling them to identify possible solutions to potential Army challenges.

TRAC’s study team has already planned initial visits to the Engineer, Field Artillery, Infantry and Armor schools as well as engaging a wide breadth of additional institutions throughout the Army, including Intermediate Level Education, Pre-Command Course and the U.S. Army Sergeants Major Academy. The team is also working toward visiting National Guard and U.S. Army Forces Command units.

In addition to numerous site visits to gather information from the force, TRAC has also reached out to academia, monitored sister service progress and will continue to review other published material on gender integration throughout the study, which is scheduled to end March 2015.

As TRAC continues to gather data from a variety of sources, the team will identify positive, neutral and negative factors, Kerekanich said; however, the end goal is to proactively identify the problems — and solutions — before integration begins.

Cone said TRADOC’s efforts are off to a good start; however, the studies will take time in order to be successful, and ultimately, improve standards throughout the Army.

“As the TRADOC commander, I can’t lower organizational performance — our hard-earned reputation is combat-ready formations,” Cone said. “We can make this a better Army by uniformly imposing these valid standards across the board.”

Gender neutral

TRADOC and USARIEM review MOS physical standards

By Amy L. Robinson / FORT EUSTIS, Va. (July 2, 2013)

Pfc. Trevor Coursey loads the final round as part of a U.S. Army Training and Doctrine Command task evaluation at Fort Bliss, Texas, April 25, 2013, during Network Integration Evaluation 13.2. The task evaluation was part of a larger effort led by TRADOC to review the physical standards for all Soldiers for every military occupational specialty throughout the Army.



USARIEM researcher receives award

By Kelly Sullivan, USARIEM / NATICK, Mass. (June 19, 2013)

Dr. Andrew Young, division chief for the Military Nutrition Division at the U.S. Army Research Institute of Environmental Medicine, has been honored for his professional contributions over his 36-year career in science.

Young received The Citation Award from the American College of Sports Medicine at ACSM's annual conference in Indianapolis on May 28.

Young was one of six scientists who received this year's award based on professional merit. The Citation Award is the second highest award given out by ACSM and is granted to an individual or group who has made significant and important contributions to sports medicine and the exercise sciences. Contributions considered include research and scholarship, clinical care and administrative and educational services in sports medicine and exercise science.

There have been approximately 200 recipients in the 55 years since the award's incep-

tion, and only a few are awarded annually. "This is the biggest honor I have received," Young said. "I'm very proud to receive that kind of recognition by my scientific colleagues, peers and community."

Young, who has served USARIEM and the Army community for more than 36 years, received the award for his lifelong scientific contributions to both military and civilian communities and in recognition of his many significant professional contributions to the fields of exercise physiology, sports medicine and nutrition, as well as his extensive involvement with ACSM.

At USARIEM Young supervises more than 30 scientists, technicians and support staff. He oversees a multimillion-dollar budget and directs research to study mechanisms by which nutrition influences the health and performance of military personnel.

Young is an internationally recognized expert on environmental physiology, having contributed seminal papers concerning

Dr. Andrew Young, division chief for the Military Nutrition Division at the U.S. Army Research Institute of Environmental Medicine, pictured with Dr. Janet Walberg-Rankin, president of the American College of Sports Medicine, received The Citation Award at ACSM's annual conference in Indianapolis on May 28.

human adaptation and performance at the extremes of heat, cold and high altitude. His research has also resulted in important articles concerning the biological basis for, and strategies to mitigate, performance degradation in people exposed to intense physical exertion, sleep restriction and nutritional deprivation.

Young has demonstrated outstanding scientific productivity through 350 publications, of which he is senior author on about 50 percent. Over 180 of his publications appear as peer-reviewed journal articles, book chapters and technical reports. He also has more than 160 published abstracts from professional presentations. He has presented at 75 invited seminars, symposia presentations and scholarly lectures. His research findings have been extensively translated into evidence-based preventive medicine programs for sport events, industry and U.S. and foreign military services.

Since being elected a Fellow of the College (for ACSM) in 1982, Young has served on more than 10 ACSM committees, ad hoc committees or task forces as well as being elected to the board of trustees.

However, his most distinguished and important service to the College was to its flagship journal: *Medicine & Science in Sports & Exercise*. Young was selected to serve a four-year term as editor-in-chief beginning Jan. 1, 2006, and he was invited to continue his service for a second four-year term, which will end later this year. Over this time, the Journal Citation Reports impact factor increased from two to well over four, which is the highest in the journal's history. Overall manuscript submissions increased 15 percent. According to ACSM, the state of the journal is stronger than ever.

With all this service and experience under his belt, Young hopes that young scientists heed his advice.

"Keep working hard," Young said. "Be involved in your research, be involved in your professional societies and try to make a contribution wherever you can."

Lt. Col. Brian Greata speaks to U.S. Army Garrison Natick employees July 9 during his first town hall meeting as commander.

Lt. Col. Brian Greata held his first town hall meeting July 9 as commander of U.S. Army Garrison Natick.

After presenting awards to a number of civilian employees and Soldiers, Greata outlined his background, philosophy and priorities as commander. He then talked about furloughs, sequestration and upcoming events before taking questions.

"We should be operating as a team," Greata told those in attendance. "We look out for each other because we are a team. That's my expectation."

The West Point graduate, whose last assignment was with U.S. Northern Command, said that he wanted Natick to be a "learning organization" that applies lessons of the past to future endeavors.

"You make your own luck," Greata said. "I want to be an organization that plans, so that when opportunities pop up, we can take advantage of them to our benefit."

Greata reminded employees that the garrison has stakeholders within and outside the fence line.

"We are interconnected with the other tenant units on this post, as well as all those organizations off post," Greata said.

He described himself as detail oriented and a hard worker.

"I will ask probing questions," Greata said. "I want to get to the bottom of things. I expect first-class service."

One area of focus, said Greata, is maintenance — and not just of equipment and infrastructure.

"There's also maintenance of people," Greata said. "Take care of yourself."

Greata acknowledged that the future would bring changes to the garrison.

"We will roll with them as an organization," he said.

Greata urged garrison employees to come to him with their concerns.

"I am very approachable," Greata said. "You



Photo Credit: Tazaryia Mouton, USAG Natick Public Affairs

Greata holds first town hall meeting

By Bob Reinert/USAG-Natick Public Affairs / NATICK, Mass. (July 10, 2013)

can ask me anything at any time."

Awards:

Length of Service Certificates: five years, Lauren Anzivino, Jaylynn Richard; 10 years, Sherita Baker; 20 years, Scott Woodward; 25 years, William Novak Jr.

Commander's Coin: Steve Chromiak, James Santoro

Certificate of Appreciation: Steve Smith, STRATCOMM; Robert Milburn, TACOM G-3; Charles Slizoski, TACOM-G3; Doug Sill, NSRDEC

Certificate of Appreciation: Staff Sgt. Sharalis Canales, Sgt. Christopher Helms, Spc. Reginald Farrior, Spc. Amanuel Gebru, Pfc. Steven Bauman, Pfc. Amber Foskey, Pvt. 2 Adeline Hamilton and Pvt. Hannah Fluharty, Headquarters Research and Development Detachment; Staff Sgt. Carl Larcom, U.S. Army Research Institute of Environmental Medicine.

Certificate of Achievement: Joseph Kurzontowski, Lauren Anzivino

Achievement Medal for Civilian Service: Devin Fitzmaurice



Photo Credit: Sharonda Pearson, 401st AFSB Public Affairs

Force Provider retrograde

By Sharonda Pearson, 401st AFSB Public Affairs / KANDAHAR AIRFIELD, Afghanistan (June 26, 2013)

As forces in Afghanistan drawdown in preparation for the withdrawal of 34,000 U.S. troops by February 2014, and the end of combat operations by the end of 2014, so will the life support equipment needed to sustain personnel deployed in support of Operation Enduring Freedom.

For Mike Treadway, Force Provider logistics manager at Bagram Airfield, Afghanistan, and Harold J. Ormsbee, Force Provider logistics manager at Kandahar Airfield, that means overseeing the retrograde of all Force Provider systems in Afghanistan.

Bradford Volz, with Product Manager (Forward) for Force Sustainment Systems, says the extent of the mission required personnel to be stationed at Bagram Airfield and Kandahar Airfield — the only two locations in

Afghanistan responsible for preparing Force Provider Equipment for shipment to the continental U.S. — to efficiently complete the Force Provider retrograde.

“Due to the magnitude of the Force Provider retrograde mission Lieutenant Colonel Paul Brooks, the TACOM Integrated Logistics Support Center, ILSC, team leader, and I decided to assign a person to work at the Kandahar and Bagram retrograde yards,” Volz said.

“PM Force Sustainment Systems and TACOM ILSC Force Provider are jointly responsible for overseeing the retrograde of all Force Provider equipment, and the 401st Army Field Support Brigade, is responsible for executing the retrograde,” he added.

Force Provider, also known as the Army’s Pre-

mier Base Camp, is a containerized, highly deployable city that provides Soldiers with the basic necessities for living conditions.

“Major components of the Force Provider module include billeting tents, dining and laundry facilities, showers, latrines, 60K generators, complete Morale, Welfare and Recreation, with temper air beam supported tents, and environmental control units,” Ormsbee said.

“Additional add-ons include cold weather kits, prime power kits, energy efficient kits that consist of improved tent and vestibule liners, solar shades, and shower waste reuse systems, all electric kitchens, containerized chapels and waste water evacuation trailers,” he added.

Treadway believes the streamlined process at the retrograde yard will enable his team to meet the goal to have all the Force Provider’s retrograded and ready for reset at Letterkenny Army Depot, Penn., by the end of fiscal year 2014.

“The yard where the retrograde is being completed is set up with a staging area, sorting area, demil area, fuel drain and purge area, wash rack and customs prep area,” Treadway said. “I provide disposition guidance for all equipment received. Identifying which equipment needs to be processed for retrograde, stay in theater for future mission, or offered to units needing support.”

Ormsbee believes retrieving Force Provider assets for retrograde will be critical in determining the Army’s ability to adequately provide life cycle support to Soldiers in virtually any environment to include training, contingency and combat operations.

“Force Provider enhances combat effectiveness by assuring that the Soldier, Sailor, Airman, Marine and civilian, receive the high-quality living conditions they deserve while serving in support of Operation Enduring Freedom,” Ormsbee said. “Executing the retrograde is a major task that requires everyone’s support for success, but these items are critically needed to keep our reset production line open so we can be prepared for future contingencies.



Boston strong, Natick proud

Soldiers from Headquarters Research Development Detachment carried the nation’s Colors for the July 4th National Anthem prior to the Red Sox-San Diego Padres game at Fenway Park in Boston

Photos by Jahn Harlow, USAG-Natick Public Affairs





NSSC This Week

NSSC

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Garrison Commander

Lt. Col. Brian Greta

Command Sergeant Major

Command Sgt. Maj. Robert Beausoleil

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

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

Layout and design provided by Philip Fujawa, NSRDEC Strategic Communications

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

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