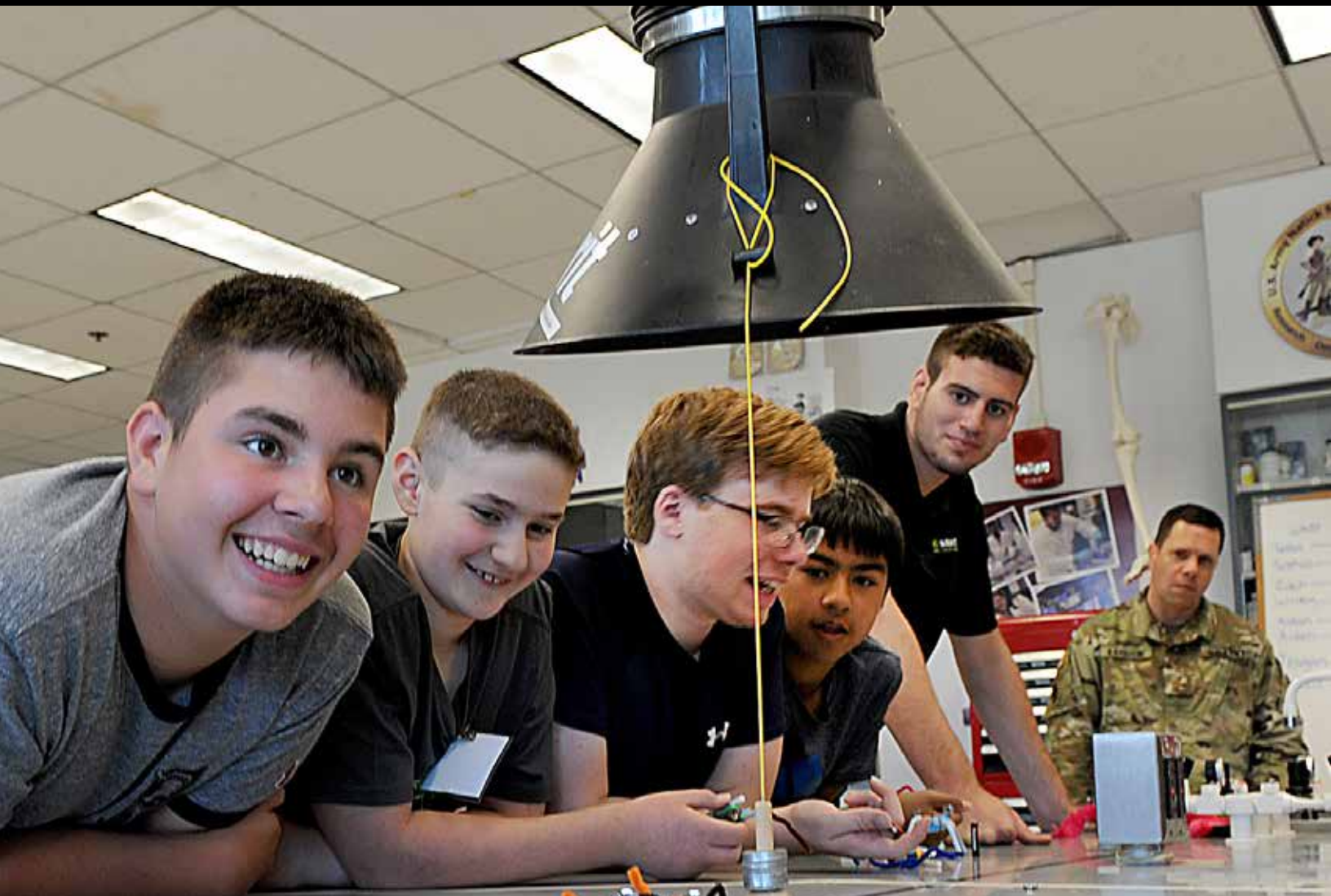


September 2017

NSSC This Month

U.S. Army Garrison Natick Public Affairs Office



Sparkling GEMS

Local students take part in summer program at USARIEM



NAGC

2016 and 2017 National Association of Government Communicators First Place, External Newsletter



Commander's Corner

Brig. Gen. Anthony W. Potts
NSSC Senior Commander



Table of Contents

September 2017

NSSC This Month

Community Collaborations ...

On what began as a typical work day 16 years ago, I felt a tremor and a sense of profound dread as Flight 77 struck the Pentagon. The date was Sept. 11, 2001. The day and the moment remain forever etched in our memories.

I was honored to join with Natick Fire and Police Department partners as well as teammates across the NSSC in marking the anniversary of the attacks, which devastated thousands of lives and changed the course of many more. Indeed, their impact, which shifted the trajectory of foreign, military and domestic security policy, continues to reverberate around the world.

No one felt the agony of 9/11 more deeply than our first responders. And appropriately, brothers in the Natick FD and PD participated energetically in the "stair-climb challenge" conducted after the ceremony. Capt. John Austin and firefighter Rob Stevenson climbed in full gear, exhausting two oxygen tanks each in the process but absolutely refused to quit. The event concluded with an apt show of unity, as NSSC key leaders and teammates joined Capt. Austin for his final "lap" through the stairwells and corridors of Building 4.

Capt. Austin graciously praised Team Natick after the event, writing that, "We could not have surrounded ourselves with a more honorable group of people on this Patriot Day 2017." It's him and his colleagues who paid us the greater honor.

I'd like to thank not only our community partners but everyone across Team Natick who played a role in planning and executing a Patriot Day observance we'll never forget.

Nor was Patriot Day the only occasion for collaboration with Natick FD and PD colleagues. Two days prior to that solemn ceremony, we celebrated "Natick Days" together. FD and PD hosts welcomed us warmly, generously sharing exhibit grounds and inspiring enthusiastic community interest with their fire truck and finger-printing station. They also joined neighbors throughout the Natick community for friendly chats as noncommissioned officers from HRDD demonstrated contemporary Army equipment, field gear and combat rations. Area kids enjoyed donning helmets and body armor as much as their parents relished the scene and the photos.

Leaders appreciated the opportunity to discuss our mission and our Army with friends and neighbors. We shared some magazines, brochures and trinkets; but most importantly, we shared greetings, smiles and some surprisingly substantive conversations with very well-informed neighbors. Jen and I enjoyed the opportunity immensely and look forward to more meetings with our remarkable and remarkably supportive community in the near future.

A special thanks to Staff Sgt. Anthony Sandoval and Staff Sgt. Robert Keifer, whose dexterity with field gear, MREs and "war stories" captivated the kids and built instant rapport with all visitors. They embodied the versatile and invaluable "weapons platform" at the heart of our efforts: the American Soldier.

Brig. Gen. Anthony W. Potts
NSSC Senior Commander



NSSC This Month

NSSC
Senior Commander
[Brig. Gen. Anthony W. Potts](#)

Garrison Commander
[Lt. Col. Bryan Martin](#)

Command Sergeant Major
[Command Sgt. Maj. Michael R. Pintagro](#)

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About this newsletter
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To subscribe to *NSSC This Month*, please contact Tazanyia Mouton at tazanyia.l.mouton.civ@mail.mil

On the Web: www.army.mil/natick
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Cover - p.12

Sparkling GEMS



Photo: Art Illman, MetroWest Daily News

NSSC This Month

- NSSC News Briefs.....4**
- Focal Point.....5**
- Legal Corner.....6**
Army reacts to natural disasters
- Rucking for a cause.....8**
Veterans, supporters bring awareness to suicide prevention
- Remembering 9/11.....9**
NSSC holds Patriot Day observance, stair climb
- 'Not Forgotten'.....10**
USARIEM Soldier, former FDNY EMT, recalls 9/11
- Sparkling GEMS.....12**
Local students take part in summer program at USARIEM
- Planting Seeds.....14**
Students make poster presentations at NSRDEC
- Making History.....16**
USARIEM brings science to the warfighter during Leapfest 2017
- Jumping into 'Leapfest'.....18**
NSRDEC participates in annual international event
- Evolve and Adapt.....20**
Central theme of Cardon visit to Natick
- Fast Food.....21**
DLA cuts backorders for items such as ovens, freezers
- A Click Away.....22**
New express license portal allows access to patented technologies
- Among Giants.....23**
Chemist awarded prestigious honor
- National Disability Employment Awareness Month.....24**
October 2017



NSSC News Briefs ...

LinkedIn Class

Are you interested in a LinkedIn class? The ACS Employment Readiness Program is exploring offering a workshop on how to safely use social media to develop an online presence to get your next job. This would be an approximately 2-hour class offered here at NSSC and would require a minimum amount of participants to run. If interested, please email diane.k.magrane.civ@mail.mil to be added to a waitlist.



LGBTQ Veterans' Retreat



Project New Hope Inc. welcomes LGBTQ veterans to a retreat October 13-15 in Groton, Massachusetts. The weekend offers a safe and protected space to loosen the stress and constraints of daily life while meeting other LGBTQ veterans in a supportive environment. Enjoy quiet reflection, hiking, biking, kayaking or sitting around the camp fire. Everything is FREE for eligible participants including lodging and meals. Register today at www.ProjectNewHopeMA.org/Retreats.

Fall Harvesting in New England

The weather is getting just right for apple picking with pumpkin picking soon to follow. Visit <http://pickyourown.org/> to find "pick-your-own" farms in your area. The website also includes links for cool activities like finding pumpkin patches, corn mazes, local community food festivals, specialty farms, links for scheduled cosignment sales throughout the region, and other fall and Halloween activities.



Self-Defense Training

Self-defense training will be available each Tuesday in October at the Lord Community Center from 4 to 5:30 PM. Sgt. Erik Serrano, a certified Combatives Instructor, will provide the training but space is limited and registration is required. Contact susan.o.baldwin.civ@mail.mil for more information or to register.




Garrison Spotlight

Dawn Thompson

What Dawn does:

"I am blessed to be able to support NSSC in its daily operations and mission as a Department of the Army police officer."

Chief of Police, Jimmy Santoro on Dawn:

"Officer Dawn Thompson has been with the Natick Soldier Systems Center since March 2016. First as a security guard, then promoted to a lead security guard, and now, an academy-trained and certified police officer. This movement doesn't surprise me at all, as Officer Thompson's knowledge and determination shows in



everything she does at work. The Directorate of Emergency Services has received numerous compliments on the "great attitude" Officer Thompson has when they are driving onto the installation. Not only is Officer Thompson a model employee, but she is the first female police officer from NSSC, and everyone within the Directorate is proud of that.

Photo: Tazanyia Mowton, USAG Natick Public Affairs

Military Couples' Fall Retreat



Enjoy a weekend together with other veterans and military couples at the Red Jacket Beach Resort, South Yarmouth, Massachusetts, October 21-22. The weekend includes relationship-building

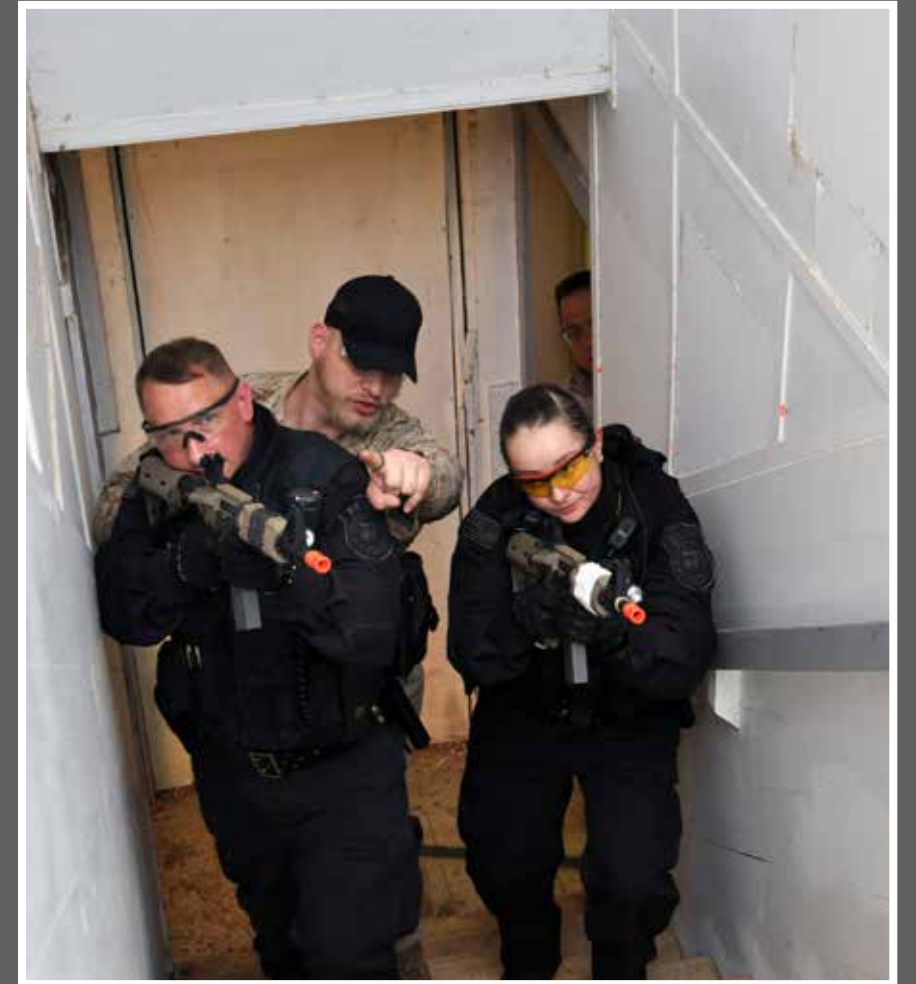
activities, breakout sessions, guest speaker Loretta LaRoche, and more. The weekend is FREE, but space is limited. For more details, e-mail heroesunitingathome@gmail.com.



Focal Point

DES Training

The U.S. Army Garrison Natick Directorate of Emergency Services held active-shooter training using simulated munitions July 28 at a Hudson, Mass., training facility. Right: Personnel move up a stairway with direction from an instructor during a room-clearing exercise. Lower left, personnel listen as an instructor reviews their movements. Lower right, an instructor explains the proper use of tourniquets in the field.



Photos by Bob Reinert, USAG Natick Public Affairs

Storm Surge

Army reacts to natural disasters

By Capt. Erika L. Andresen, NSSC Command Judge Advocate

It's the time of year when storms building up in the tropics become headline news as they head our way. When a hurricane makes landfall and leaves destruction and mayhem behind, at some point the media reports that "troops" are on the ground to assist. What exactly does that mean, and how does that happen?

The [10th Amendment](#) of the U.S. Constitution reserves certain powers to the states, including police power. Under police power, each state has the primary responsibility to prepare for, respond to, and pay for disasters or emergencies within its borders. As a general rule, the federal government (including the DoD) is not the immediate first responder.

The [National Guard](#) is the first to carry out the disaster relief mission. The Guard belong to the state in which it operates and is typically in State Active Duty (SAD) status or a non-federal Title 32 status for initial training. Guard Soldiers in either of the two non-federal statuses answer to the governor and the adjutant general and can be activated to help victims and maintain order. Governors can activate their Guards to assist neighboring states, as well. If, in the exercise of its police powers, a state is overwhelmed by the severity and magnitude of a disaster or emergency, the governor can request assistance from the federal government under the [Robert T. Stafford Disaster Relief and Emergency Assistance Act](#) (the Stafford Act).

The president may issue two types of declarations under the Stafford Act: a [Major Disaster Declaration and an Emergency Declaration](#), which are the triggers for providing federal – including DoD – assistance, and allow active-duty military personnel in a Title 10 status to assist. What are the differences between these two declarations?

They are different in the type of events they cover, how much federal assistance can be provided, how many federal dollars can be spent initially, duration, and degree of damage.

A Major Disaster Declaration is made in response to a request from a governor for a natural catastrophe or any catastrophe as a result of a fire, flood or explosion, which the president determines warrants federal assistance to alleviate damage, loss, hardship or suffering. An Emergency Declaration is



made in response to a request from a governor for any occasion, which the president determines federal assistance is needed to save lives, protect property, public health/safety, or lessen threat of a catastrophe. After [Hurricane Katrina](#), a provision was made to provide accelerated federal assistance and support without a request for assistance from the state. Whichever declaration is issued, it will define the counties that the declaration applies to, and this will serve as the boundaries for DoD assistance. The declaration will also initiate the [Request for Assistance/Mission Assignment](#) process that [FEMA](#) uses to ask other federal agencies for assistance.

The form of assistance offered by active-duty personnel is purely in a support role to the local, state and federal agencies. Examples of active-duty support include search and rescue; distribution of medicine, food and supplies; removal of debris; transportation of supplies and people; demolition of unsafe structures; and recovery of bodies. Currently, the 82nd Airborne, the 101st Airborne, and the 7th Infantry Divisions are deployed to assist with the [Hurricanes Harvey and Irma](#) efforts. There are, however, limitations to what the active-duty Soldiers can do.

The [Posse Comitatus Act](#) (PCA), dating back to 1878, prevents active-duty personnel from executing law enforcement duties. The restrictions mean active-duty Soldiers cannot arrest, collect evidence, patrol, or engage in traffic or crowd control. These restrictions do not apply to the Guard in either SAD or non-federal Title 32 statuses. The Guard can engage in riot control, as they did in Ferguson, Missouri, in 2014. There are limited exceptions to the PCA where active-duty personnel are permitted to engage in law enforcement, and those include a National Emergency Declaration (different from a Stafford Act Declaration), a declaration of [Martial Law](#), and Homeland Defense missions.

Disaster relief and the military's role in it have been contemplated as far back as our Founding Fathers and the Constitution. It's a complex world, with lots of regulations and authorities that require strict adherence. Fortunately, it is an evolving area that allows for legal and codified adjustments that keep the focus on one primary goal: alleviating great damage, hardship and suffering.

Above: Army helicopters land on a Texas highway in the wake of Hurricane Harvey. Opposite: Hurricane Irma gathers strength.

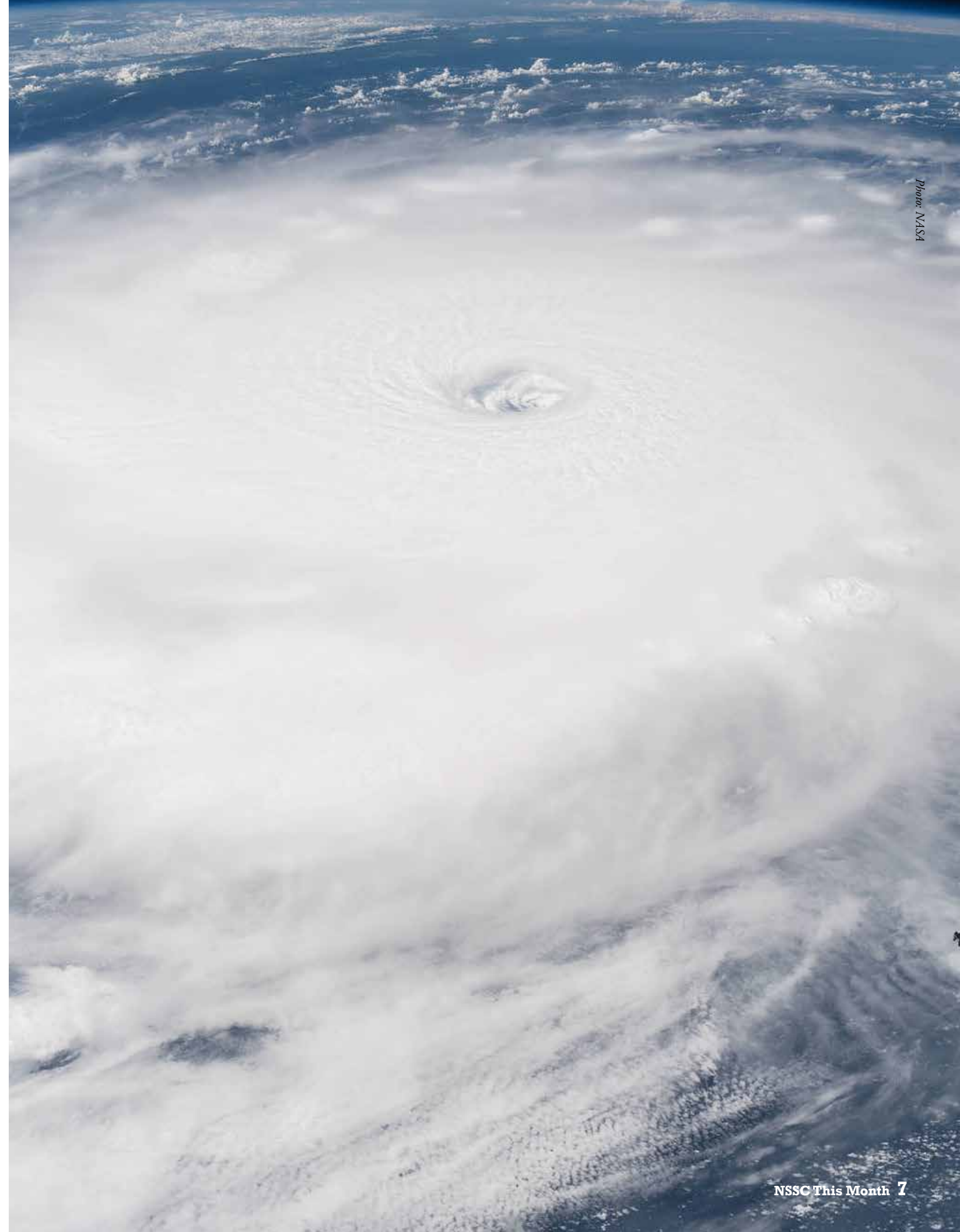


Photo: NASA

Rucking for a Cause

Veterans, supporters bring awareness to suicide prevention

By John Harlow, USAG Natick Public Affairs/NATICK, Mass. (Sept. 19, 2017)



According to the most recent report from the [Department of Veterans Affairs](#), 20 veterans take their own lives every day.

More than 7,400 veterans died by suicide in 2014, the latest year for which statistics are available. This accounts for 18 percent of all suicides in America. The veteran population in the U.S. is less than nine percent.

In an effort to raise awareness of this epidemic in our veteran ranks, eight Soldiers, former Soldiers and supporters of the military ruck marched across Massachusetts from the western border and finished in Plymouth.

Sgt. Sonya Morand, 1st Lt. Kristen Heavens, Andi Piscopo, Adam Barbrie, Al Brooks, Brendan Dunn, Sean Butler, Darren Bean and Shaun Morand took part in this march to raise awareness of [veterans suicide](#).

"I do it for my grandfather, who was a 20-year Navy veteran," said Heavens, who came to Massachusetts from San Antonio, Texas, where she is in the [Interservice Physician Assistant Program](#). "I never got to meet my grandfather, but I see the effects of his suicide every day. I also had a family friend who I considered a little brother take his life five years ago.

"The effects are exponential. Suicide leaves so much emptiness and hurt and a void that can

never be filled. What is ironic about that is how the person who made that decision feels. Their pain is then transferred to their friends and family to carry on."

The 200 miles took the ruck marchers through 43 towns in the Commonwealth. Sgt. Sonya Morand of the [U.S. Army Research Institute of Environmental Medicine](#) couldn't believe the outpouring of support.

"At times there weren't words to explain the response," said Morand. "It was emotional at times. We're walking at 2 a.m. and people were flooding the streets to show us their support. They were giving us water and snacks, waving their American flags and chanting 'God Bless America' and 'U.S.A.' The feeling was absolutely amazing to get that kind of support out of the blue."

Bean, a former employee of the [Natick Soldier Systems Center](#) and a retired sergeant major, coordinated the efforts for the ruck march.

"We met with more than 1,000 people in 43 towns over 72 hours," said Bean. "There were older ladies in housecoats, young boys and girls waving American flags, [JROTC](#) members presenting colors, and firefighters and police officers lined up at attention as we marched by. I saw the pain (on) our team's faces, in their

bodies and the fatigue in their voice, but you never heard a single complaint. When we finished in Plymouth, extreme fatigue turned into gallons of tears and hugs. It was more emotional than any other event, with the exception of a military funeral."

Rucking for 200 miles in a 72-hour time frame takes a toll, both mentally and physically.

"I always struggle to put into words the experience during the ruck," said Heavens. "Physically, it's grueling. Once you get through the first 24 hours, it starts to add up. The lack of sleep, lots of miles, soreness and blisters challenge you both physically and mentally. None of that matters, because you know your message has so much more power than any of those challenges."

Losing one veteran to suicide is one too many, so Morand won't give up.

"There is an ugly stigma that is flooding our ranks to not seek help," said Morand. "It is scary to think that our Soldiers and veterans don't want to seek help because they fear a reprimand, hurting their career progression or (being) labeled.

"If you feel like you are in a low place or you feel like you are alone, you should always be able to feel comfortable to reach out to get help. That is why I do this. I want to raise the awareness that it is OK to seek help. It may not be in your chain of command, but there are other options available when you need help. Taking your life isn't the only option."

Heavens will also carry on.

"I do this so that people know they're not alone and there is always someone who cares for them and who is willing to support them," said Heavens. "I do this so other families don't feel the devastation and pain that my family does."

If you are thinking of harming yourself or know someone who is struggling, there are many ways to get help.

The American Foundation for Suicide Prevention is at [www.afsp.org](#), and the [National Suicide Prevention Lifeline](#) is at 1-800-273-8255.

Remembering 9/11

NSSC holds Patriot Day observance, stair climb

By Bob Reinert, USAG Natick Public Affairs/NATICK, Mass. (Sept. 11, 2017)

Members of the [Natick Soldier Systems Center](#) community gathered together near the flagpole in front of the headquarters building Sept. 11 to remember the sacrifices that took place on [9/11](#) and thereafter.

Speaking to those assembled for the Patriot Day observance, [Brig. Gen. Anthony W. Potts](#), NSSC senior commander, compared that day 16 years ago to such iconic events as the opening battles of the American Revolution and Civil War and the attack on Pearl Harbor.

"September 11, 2001, is among those historical flashpoints," said Potts, "and since it impacted those of us past school age very personally and very powerfully, it continues to resonate."

As Potts pointed out, nearly 3,000 people lost their lives in the attacks on the World Trade Center, the Pentagon and (United Airlines) Flight 93. Potts was in the Pentagon when it was hit by American Airlines Flight 77.

"I can actually remember the impact tremor as I stood in the Pentagon the day the aircraft struck it," Potts said. "The magnitude of loss of life is staggering to ponder, and but for the bravery shown by first responders in New York and the Pentagon, the death and suffering would have been much worse.

"Many survived because of the first responders who ran headlong into danger to save people that they did not know. They ran into the towers and the Pentagon to save lives as other ran from the danger."

Potts observed that on that fateful day, 343 firefighters, 60 police officers and 15 EMTs gave their lives attempting to save others.

"These men and women became heroes, not out of choice; no one gets to choose to be a hero," Potts said. "They became heroes because they put fear aside and the safety and well-being of the people in those burn-



"I can actually remember the impact tremor as I stood in the Pentagon the day the aircraft struck it."

Brig. Gen. Anthony W. Potts, NSSC senior commander

ing buildings above their own – the ultimate embodiment of selfless sacrifice."

Earlier in the ceremony, [Town of Natick Fire Chief Rick White](#) read the Patriot Day presidential proclamation.

NSSC observed a moment of silence at 8:46 a.m., the time when American Airlines

Flight 11 struck the north tower of the World Trade Center that day in New York City. Then a bell tolled 11 times.

After the observance, NSSC held its second stair climb challenge to symbolize the daily sacrifices made by first responders.

Courtesy photo

Photo: Art Iltman, MetroWest Daily News



“It’s just a very sobering experience, being a 20-year-old kid and being involved as I was. It just blew my mind that this could happen.”

Staff Sgt. Chris Knox,
USARIEM



‘Not Forgotten’

USARIEM Soldier, former FDNY EMT, recalls 9/11

By Bob Reinert, USAG Natick Public Affairs/NATICK, Mass. (Sept. 7, 2017)

When his fiancée woke him up in their tiny apartment on that September morning 16 years ago, Chris Knox couldn’t understand why she wouldn’t let him sleep.

Knox had spent the previous evening at the [New York City Fire Department’s EMS Academy](#) in Bayside, Queens, and he was tired. When she turned the TV to Channel 11, however, he saw why: A plane had struck the north tower of the [World Trade Center](#) in Lower Manhattan.

“Mayhem, just mayhem,” Knox recalled. “So, I jumped in the car ... and I jumped on the (Long Island Expressway), blue light flashing all the way into Fort Totten, where the academy was.”

Eventually, Knox, then 20 years old, and the other academy students, just days away from graduation, were assigned to do triage near the attack site. Now a 36-year-old Army staff sergeant and Research Support Division NCOIC at the [U.S. Army Research Institute of Environmental Medicine](#) at [Natick Soldier Systems Center](#), well remembers how that day unfolded.

On their way into Lower Manhattan, the EMTs had to cross the Brooklyn Bridge.

“There wasn’t a car on the bridge,” Knox said. “It was just filled with people on both sides walking into Brooklyn. It was crazy. You’ve never seen that before.”

The triage site was equally surreal, and no one came through for treatment.

“The air was smoky,” Knox said. “We all wanted to go down (to the site). It just felt like not being able to do anything was driving everyone insane. It was pretty intense.”

Finally, they were allowed to move closer to Ground Zero to help evacuate people and offer them masks so that they could breathe more easily in the dusty conditions. Knox never reached the site on that day, but later when he did, President George W. Bush had already visited, and the large American flag was on display.

“Cried like a baby,” Knox said. “Lost friends. Lost peers.”

Knox spent a great deal of time there in the coming days, weeks and months.

“You worked your eight-hour shift, and then you went to the site,” Knox said. “Very rarely did you not do two tours in a day.”

While at the World Trade Center site, Knox drove a small, red utility vehicle around the rubble as construction workers sifted through it.

“It’s just a very sobering experience, being a 20-year-old kid and being involved as I was,” Knox said. “It just blew my mind that this could happen. It’s definitely an experience that I wish I didn’t have to experience – driving that little ... Gator and picking up body parts.

“(The remains) would go back to a forensic lab that was onsite there, and they would identify who it was. And that was what we did the whole time.”

Knox had grown up in Farmingville, N.Y., in a family of volunteer firefighters, himself included. But he was also an Army Reservist on 9/11, and he went on active duty a year later.

“I always knew I wanted to serve in one capacity or another,” said Knox, who has deployed twice to Iraq and once to Afghanistan. “I don’t regret my choices at all. I love what I do now.”

Time has taken away some of the sting of 9/11 for Knox, but he still carries it with him.

“New York has definitely not forgotten. That’s for sure,” Knox said. “I think one of the biggest things that really struck me, and that I remember to this day, is the outpouring from the community.

“It showed the strength of New York and what New York is really about.”



Photo: Denise Gould, U.S. Air Force

Photo: David Kamm, NSRDEC Strategic Communications

Sparkling ... GEMIS

USARIEM hosts summer program

By Mallory Roussel, USARIEM Public Affairs/NATICK, Mass. (Sept. 19, 2017)

School is back in session and students are back to hitting the books as they learn about [science, technology, engineering and mathematics](#), or STEM. The goal is for students to develop a passion for STEM and pursue jobs in the field.

The kids in the [Gains in the Education of Mathematics and Science](#), or GEMS, program at the Natick Soldier Systems Center, already got a head start this summer.

The [U.S. Army Research Institute of Environmental Medicine](#), or USARIEM, once again sponsored the GEMS program, an extracurricular summer science education program that enables students to experience science in laboratory settings.

GEMS has a multidisciplinary educational agenda, and students participate in grade-appropriate activities related to science, engineering, mathematics, computational sciences, computational biology, biomedical sciences, chemistry and biology.

Maj. Joseph Kardouni, the GEMS program director for USARIEM, said one of his main goals in the GEMS program is to limit the reading and writing assignments that middle school students would typically do as part of their normal education.

“The primary goal of GEMS is to give students exposure to fun, hands-on activities centered on math and science,” Kardouni said. “The hope is that the students might give stronger consideration to academic courses and careers in science, engineering and technology after their GEMS experience.”

In the conclusion of its seventh year, the GEMS program at USARIEM had grown to three programs – GEMS 1, 2, and 3 – and had nearly 200 children in attendance. Each GEMS session allows students to return the following summer, slowly building on the lessons learned the summer before and encouraging the growth of future scientific leaders.

Advanced high school- and college-age students called “near-peer mentors,” led the GEMS programs and served as role models for the students. Prior to their arrival, near-peer mentors completed extensive training at a science boot camp in which mentors learned how to conduct and teach GEMS experiments.

“The near-peer mentors, who are high school seniors and college students, are closer in age to the GEMS students,” Kardouni said. “That age proximity makes it easier for the mentors and the students to relate to one another. Plus, GEMS students may feel more at ease with younger mentors than they would with scientists similar in age to their parents or their school teachers.”

Kardouni mentioned that younger high school students who graduated from the GEMS program also serve as assistant mentors.

A typical day in the GEMS program consisted of such fun activities as creating chemical reactions such as “elephant toothpaste;” smashing frozen gummy bears to learn about the properties of dry ice; using chocolate-covered candy in statistics problems; and visiting USARIEM’s Bone Health Lab to learn how researchers are studying the causes of stress fractures in Soldiers and finding ways to prevent them.

The kids even watched members of the [Massachusetts National Guard](#) land a UH-60 Black Hawk helicopter at NSSC and later toured the inside of the aircraft.

Kardouni said that USARIEM continues to sponsor the GEMS program, which is part of the [U.S. Army Educational Outreach Program](#), or USAEOP. The USAEOP has a long history of recognizing that having scientifically and technologically literate citizens is the country’s best hope for a secure, rewarding and successful future.

GEMS began in 2005 as a single program at [Walter Reed National Military Medical Center](#). The GEMS program has grown to 12 sites in eight states across major U.S. Army research installations, including USARIEM.

“The need for STEM literacy – the ability to understand and apply concepts from STEM in order to solve our nation’s most complex problems – is growing exponentially,” Kardouni said. “The GEMS program is part of USARIEM’s effort to help educate the future workforce so they can positively contribute to our nation’s science and technology that we use not just in hospitals, industries and universities, but also in our military.”



Photos: Art Iltman, MetroWest Daily News



Emma Ratigan participated in the Natick Soldier Research, Development and Engineering Center's 11th annual Future Workforce Poster Presentation. Ratigan, who is pursuing a double major in chemistry and computer science at Boston College, presented a poster highlighting NSRDEC's Jungle Fabric and Architecture Development Effort, or JFADE.

Photo: David Kamm, NSRDEC Strategic Communications

Planting Seeds

Students make poster presentations at NSRDEC

By Jane Benson, NSRDEC Public Affairs/NATICK, Mass. (Aug. 17, 2017)

Sometimes you need to plant seeds for growth in [STEM](#) careers. That's the idea behind the [Natick Soldier Research, Development and Engineering Center's](#) 11th annual Future Workforce Poster Presentation. The event is an important part of NSRDEC's Science, Technology, Engineering and Math, or STEM, outreach and NSRDEC's future workforce initiative.

The Future Workforce Poster Presentation showcases NSRDEC's science and technology excellence and provides students the chance to gain invaluable presentation and public-speaking skills while recounting their learning/working experiences at NSRDEC.

NSRDEC's Human Resources Team hosted the event, which featured a total of 17 presentations by students from the Pathways program, student volunteers and students from the [University of Massachusetts Lowell's Harnessing Emerging Research Opportunities to Empower Soldiers](#), or HEROES, program.

During their time at NSRDEC, students learn about careers developing products, solutions and technologies for the warfighter and benefit from interaction with NSRDEC's renowned scientists and engineers.

The event was coordinated by Duane Young, NSRDEC training coordinator from human resources.

"The student poster presentation is an annual event that allows our students to showcase the project or projects that they have been working on during their time here at NSRDEC," said Young. "It allows our workforce to meet and interact with the students and engage with them on their topics. This event also allows the students to see what their fellow colleagues have been working on while here, as well. We have students ranging from freshman year up through graduate-level work, so there is a wide range of talent and varying levels of technical expertise. It's amazing the work that they do and for them to know and understand that these projects aren't just for a science fair, that what they are doing could have a huge impact on our warfighters, is very impressive."

Students found the experience invaluable and the work meaningful.

Laura Auerbach, who is a student at [Worcester Polytech Institute](#), works in NSRDEC's Aerial Delivery Directorate on the Aerial Delivery Engineering Support Team, or ADEST. Her team leader is Bill Ricci and her mentor is Aubrey Greenwald. Auerbach inspected personnel parachute items to ensure they met visual, dimensional and constructional requirements.

"I enjoyed having the opportunity to work alongside professionals in my field and be involved in meaningful projects that benefit those who are serving our country," said Auerbach. "It is very rewarding to do work that helps to keep Soldiers safe. ADEST inspects life supportive equipment and knowing that I am contributing to ensuring the safety and quality of these items adds another level of importance and commitment to my work."

Ryan Darnley, who attends Worcester Polytechnic Institute and is double-majoring in mechanical engineering and electrical engineering, worked on the Food Sanitation Center III as well as other pieces of equipment. Darnley works for Joe Jordan in NSRDEC's Combat Feeding Directorate on the Food Service Equipment Team.

"NSRDEC provided me with a lot of different kinds of projects," said Darnley. "This greatly helped me broaden my knowledge of not only the equipment, but engineering as a whole. Knowing that my work helps the Soldier is a very rewarding feeling. Every job has its own merit and means of making the world a better place; however, performing work that can help the life of a Soldier is something that I personally find very appealing."

Emma Ratigan is a chemistry and computer science double major at [Boston College](#). She assisted with the Jungle Fabric and Architecture Development Effort, or JFADE, to help develop a uniform for hot and wet environments. She works with the Textile Materials Evaluation Team in the Warfighter Directorate. Her team leader is Laurra Winters and she's been working with Melynda Perry on JFADE.

"I love having the opportunity to be part of both a team and a larger community that are so passionate and dedicated to the work that they do," said Ratigan. "It is very fulfilling to know that the work I am doing is impacting the Soldier on a daily basis."

Andrew Connors is attending [University of Massachusetts Dartmouth](#) and is majoring in mechanical engineering. He started working at

"The fact that we have consistently held this event for the past 11 years is evidence of the value and benefit that it brings to our students and the Natick Soldier Systems Center community."

Sharon Menard, NSRDEC Human Resources

NSRDEC in 2009, and this year he worked on creating an Expandable Desk prototype for the Standardized Integrated Command Post System, or SICPS. He works for team leader Melvin Jee on the Tactical Shelters Team in the Expeditionary Maneuver Support Directorate.

"The most enjoyable part of my job is the satisfaction that my contributions will help Soldiers in the field," said Connors.

Many members of NSRDEC's workforce serve as mentors and supervisors to the student participants.

Jee summed up the importance of student and mentor interactions.

"The student and mentor relationship is invaluable when working with these young college students," said Jee. "It gives them a chance to tackle real-world problems versus some theoretical exercise in the classroom. They realize that they have the opportunity to impact the lives of the Soldier in real, tangible ways, whether it's giving them better food or helping them to set up and take down their shelter quicker to enable the maneuver force to be more expeditionary. In so doing, they tackle issues that project officers may not have the bandwidth to tackle. In other words, they're almost a force multiplier of a sort. In addressing these problems, they not only bring a fresh perspective, but, if successful, they bring great credit to NSRDEC and a sense of pride to the mentor."

"The fact that we have consistently held this event for the past 11 years is evidence of the value and benefit that it brings to our students and the [Natick Soldier Systems Center](#) community," said Sharon Menard, deputy chief of staff for Human Resources at NSRDEC. "Every year, the students impress us with their technical knowledge and their professional presentations. Their enthusiasm and excitement for our mission is a direct reflection of the dedication and commitment of their mentors and team leaders. I am very grateful to be involved in this effort and to be a part of the organization that supports it."

Making History

USARIEM brings science to the warfighter during Leapfest 2017

By Mallory Roussel, USARIEM Public Affairs/WEST KINGSTON, R.I. (Aug. 10, 2017)

At first glance, the 300 paratroopers competing at this year's [Leapfest](#) on Aug. 6 weren't quite sure what to think of the interesting-looking chest harnesses, as they noticed the four Natick Soldiers strapping them around their ribcages before donning the rest of their uniforms, static-lines and parachutes.

It wasn't until speaking to them that the paratroopers learned that the four Soldiers were from the [U.S. Army Research Institute of Environmental Medicine](#), or USARIEM, and they were donning Physiological Status Monitors, or PSMs.

It was also USARIEM's first time participating in Leapfest, the largest static-line parachuting competition in the world. The team members, among them Col. Raymond Phua, commander of USARIEM, wore PSM systems during the jump in order to bring awareness to how USARIEM "brings science to the warfighter."

Alexander Welles, a USARIEM research physical scientist who was in charge of setting up the PSMs for the team, explained that the PSM is an example of wearable technology developed over years, guided by physiological data collected from multiple USARIEM studies. Welles said the PSM can track a Soldier's physiological condition as he or she operates in extreme conditions and during intense activities.

"PSM systems can generally provide a lot of information that indicates the kind of thermal and physiological load an individual is experiencing," said Welles from USARIEM's [Biophysics and Biomedical Modeling Division](#). "The PSM records Soldiers' real-time, minute-by-minute heart rate, blood-oxygen saturation levels, respiration rate, skin temperature, core body temperature and body position. It can also receive internal body temperature data from an ingestible thermometer pill."

Maj. Nicholas Barringer, one of USARIEM's jumpers, explained that while the PSMs were novelties, they also allowed the USARIEM researchers a first-time opportunity to collect data during a jump to actually document physiological responses during an airborne operation.

"The PSMs were a conversational piece, but we were also able to collect data from the jumps we did," Barringer said. "One of the few times the PSM had ever been used with jumping was with [Felix Baumgartner](#), who made a world record for the highest freefall jump. USARIEM was one of the first to use PSMs in a static-line airborne operation in the Army. We collected data from the practice jump, as well as the competition



jumps, to see the heart rate, respiration, core temperature and all of these other physiological measurements that, up until this time, have never been looked at before during an airborne mission."

While leaping with the PSM during an airborne mission is a first for the Soldier researchers, years of studies have shown that military leaders can use PSMs to adjust missions in unpredictable, extreme environments, from hot, to cold, to hypoxic conditions at high altitudes.

By providing accurate physiological information on individual warfighters, leaders can make timely, critical training and mission decisions. Welles said that mission planners are able to do this with PSMs because the technology "provides a base to deploy USARIEM's predictive and optimization algorithms, particularly the Estimated Core Temperature algorithm, or ECTemp, which mission planners can use to mitigate the risk of thermal injury."

The ECTemp uses mathematics to provide accurate estimates of core body temperature simply by analyzing heart rate changes over time. With the ECTemp incorporated into the PSM, military leaders have an easier, non-invasive way of identifying Soldiers who are at risk of heat illness.

"The most value we get from the PSM is the algorithm USARIEM-developed ECTemp," Barringer said. "Now, mission planners and medics can see how hot a Soldier is getting, and they can intervene before a Soldier becomes a heat casualty. This is huge because if you look at the cost of having a heat casualty, and they have to

"About 300 paratroopers were watching us put on these devices. They were really impressed with how light the PSM was. Having worn it twice all day, I can say that you forget it's there."

Dr. Nicholas Barringer, USARIEM

go to the hospital, you're going to take that person out of the fight. But even the economics to treat a person with heat stress is another thing to consider. So now there's a device to help us get ahead of that curve and possibly prevent thermal injuries."

According to Barringer, the fact that the PSM is able to accurately collect this real-time data in a non-invasive way that doesn't interfere with a Soldier's comfort, mobility or safety is a plus, too.

"About 300 paratroopers were watching us put on these devices," Barringer said. "Then they came over and talked to us, and we showed them what data the PSMs could collect and how light the piece of equipment feels. This is another concern because when a Soldier is already carrying all of this equipment, he or she should not carry more because it can weigh him or her down. They were really impressed with how light the PSM was. Having worn it twice all day, I can say that you forget it's there."

Clear, blue skies greeted Phua, Barringer, Maj. Joseph Kardouni and Sgt. 1st Class Nathan Kent as they leapt from the [CH-47 Chinook](#) helicopter at 1,500 feet above the ground and sailed in their parachutes to land as closely as possible to the "x" marked in the landing zone at the [University of Rhode Island](#). Judges timed how long it took jumpers to run from their landing spot to the "x" marking the landing zone. Jumpers competed for both team and individuals honors.

Out of the 70 U.S. and international airborne community teams competing, USARIEM placed 32nd with a team landing time of 2 minutes, 5 seconds.

It was a history-making leap for these scientists in the sky. Even more so, it was a history-making moment for the researchers to collect physiological data in uncharted territory.

"Participation in Leapfest provided USARIEM with a strategic platform to market our science and technology capabilities to the operational force while bringing "science to the warfighter" at 18 feet per second," Phua said. "This was an ideal venue to promote the [U.S. Army Medical Research and Materiel Command](#) and USARIEM, as well as the role of military operational medicine in human performance optimization and contributions to readiness."



Background photo: David Kanna, NSRDEC; Inset photos: Sgt. Bartholomew Taylor, USARIEM

An all-civilian team from the [Natick Soldier Research, Development and Engineering Center](#) participated in [Leapfest 2017](#) on Aug. 6 in West Kingston, Rhode Island. The event, hosted by the [Rhode Island Army National Guard](#), is an annual international military parachute competition that includes military and civilian participants from all over the world.

Leapfest provides onlookers with an up-close view of military airborne operations, and, according to the event's website, [www.leapfest.com](#), it is the "largest, longest standing, international static line training event and competition."

This year's event included 350 jumpers on 70 teams, including 32 international teams and 38 teams from the United States.

The event included paratrooper teams from New Zealand, the United Kingdom, the Netherlands, Italy, Germany, South Africa, Canada, Mexico and Botswana. The United States had teams from the U.S. Army, U.S. Army Reserve, U.S. Army National Guard, U.S. Navy, U.S. Air Force as well as one Department of the Army all-civilian team from NSRDEC.

A team from the 160th Special Operations Aviation Regiment won first place. A team from the Air Force's 820th Base Defense Group won second place, and a team from the 3rd Battalion of the Canadian Army's 22nd Regiment came in third place.

Each team included four paratroopers who performed one static-line jump from CH-47 Chinook helicopters. Paratroopers jumped from an altitude of 1,500 feet.

The NSRDEC team included Jennifer Hunt, David Accetta, Richard Landry and John Mahon. Accetta, Landry and Mahon are former military and currently civilian Department of the Army employees. Although Hunt is not a former member of the military, she attended military jump school.

The team of NSRDEC civilian employees finished 29th in the competition.

A second team from NSRDEC that included Sgt. 1st Class Steven Fief, Staff Sgt. Shundrea Windham, Sgt. Eduardo Sanchez and Sgt. Jonathan Repollet was scheduled to compete, but with the weather delay the team was unable to participate.

Maj. Robert Puente from [Product Manager Force Sustainment Systems](#), located at the [Natick Soldier Systems Center](#), also participated in the event. He had high praise for Accetta, chief of NSRDEC Public Affairs, who coordinated Natick's participation in the event.

"David Accetta deserves all of the credit for putting this wonderful opportunity together," said Puente. "He planned, coordinated and organized everything that needed to happen in order for our teams from Natick to compete. We as a group that competed are very grateful for his hard work in supporting each of us."

The [U.S. Army Research Institute of Environmental Medicine](#), or US-ARIEM, also had a team made up of Col. Raymond Phua, Sgt. 1st Class Nathan Kent, Maj. Joe Kardouni and Maj. Nicholas Barringer. USARIEM is also located at the Natick Soldier Systems Center.

NSRDEC's Mahon is a retired CW4 and a senior airdrop equipment specialist in the Aerial Delivery Directorate. Throughout his career, Mahon has made an invaluable contribution to the airdrop community and the airborne Soldier. His greatest contributions have been in developing aerial delivery capabilities, training airdrop techniques to the U.S. Army

Parachute Riggers, and developing Quartermaster leaders for our Army. In 2016, Mahon was inducted into the Quartermaster Hall of Fame, one of only five people in the airdrop technical specialty area to earn that honor.

"Leapfest is one of the extremely few opportunities for a paratrooper to demonstrate parachute skills, mingle with foreign paratroopers from many nations, and develop friendships across the DoD paratroop community," said Mahon. "This type of event should be conducted annually on major paratroop installations as it gives an opportunity to hone skills without the pressure of meeting all the tactical timelines and demanding requirements of follow-on missions. Ultimately, these events would result in enhanced safety of the individual jumper."

Hunt, who was on the same NSRDEC team as Mahon, is a textile technologist/materials engineer on the Aerial Delivery Engineering Support Team, or ADEST, in NSRDEC's Aerial Delivery Directorate. At just under 5 feet tall, Hunt is a powerhouse of dedication. To garner better insight into her job, Hunt is one of the few women and one of the few civilians who has graduated from the [U.S. Army Basic Airborne Course](#), also known as jump school, which provides paratrooper training for the armed forces.

"The real-life experience of jumping these parachutes alongside Soldiers and learning from them adds so much value and insight to the work I do."

Jennifer Hunt, NSRDEC

"As part of the ADEST team, my job requires a high level of knowledge of personnel parachute systems," said Hunt. "Having the technical background is critical; however, the real-life experience of jumping these parachutes alongside Soldiers and learning from them adds so much value and insight to the work I do."

Richard Benney, director of NSRDEC's Aerial Delivery Directorate, recognizes the importance of having his employees, including Mahon and Hunt, participate in Leapfest.

"Leapfest in Rhode Island has been an annual event for many years and NSRDEC along with our partners have been, and continue to be, active participants," said Benney. "The event provides both a local and weekend training opportunity for NSRDEC military personnel and for Army civilians, who are approved for static line jumps, while also encouraging a healthy competition while promoting teaming and collaborations both within the NSSC and with other DoD customers/partners and allied nations' airborne elite."

"Jumping these parachutes fosters relationships and trust with airborne Soldiers," said Hunt. "Soldiers want to know you have experienced jumping out of an airplane just like them. It breaks down the barrier that exists between someone telling you the parachute is safe and someone that actually uses it."

"The paratroop acquaintances and friends I've made over many competitions have taught me to appreciate the equipment that we use and allows me to take them to their limit, occasionally," said Mahon. "At the end of the day, one realizes that parachuting, especially military static line parachuting, is a perishable skill, and one has to be on top of their game every jump. Remember, despite your skills, if you anger gravity, gravity wins."



Jumping Into 'Leapfest'

NSRDEC participates in annual international event

By Jane Benson, NSRDEC Public Affairs/NATICK, Mass. (Aug. 7, 2017)

Whether one is talking about the military, industry, academia or the environment, a thriving ecosystem relies on the interconnectivity and the continuing evolution of all its parts.

Organizations must evolve, adapt, foresee and innovate to excel, as well as work seamlessly with partners.

This idea was a central theme of the visit of Lt. Gen. Edward C. Cardon to the Natick Soldier Research, Development and Engineering Center. Cardon serves as director, Office of Business Transformation, Office of the Under Secretary of the Army.

The NSRDEC-hosted visit focused on NSRDEC's partnership with Program Executive Office Soldier, as well as its collaborations with industry, academia, other government entities and perhaps most importantly, NSRDEC's partnerships with units – including the 82nd Airborne and the 10th Mountain Division.

NSRDEC partners with units to garner insights into Soldier needs with input provided directly from the Soldier. The overarching goals of NSRDEC's efforts are to improve capabilities of the Warfighter and optimize performance.

“The relationship that NSRDEC has developed and nurtured over the last year and a half with the 82nd Airborne has provided our scientists and engineers with incredible insight into real-world Soldier perceived issues,” said Douglas Tamilio, director of NSRDEC.

NSRDEC subject matter experts briefed Cardon on ballistic protection, operational and performance rations, signature management, force projection platforms, as well as resupply challenges and emerging aerial delivery capabilities – to name a few areas of development.

“When we are provided with an opportunity to tell our story to a senior leader, we love to discuss the impacts we are having on the current and future battlefield with regards to performance nutrition, tailored rations and modular field feeding equipment,” said Jeremy Whitsitt, deputy director of NSRDEC's Combat Feeding Directorate. “As a Soldier, Lieutenant General Cardon understands the inherent connection between food and performance and informing him of some exciting breakthroughs in this area was invaluable.”

“I thoroughly enjoyed providing Lieutenant General Cardon a quick overview of where we envision the future of the Joint Precision



Photo: David Kamra, NSRDEC Strategic Communications

Lt. Gen. Edward C. Cardon – who serves as director, Office of Business Transformation, Office of the Under Secretary of the Army – visited the Natick Soldier Research, Development and Engineering Center, or NSRDEC, on July 19. Here Cardon (left) meets with Douglas Tamilio, director of NSRDEC.

Evolve and Adapt

Central theme of Cardon visit to Natick

By Jane Benson, NSRDEC Public Affairs/NATICK, Mass. (July 20, 2017)

Aerial Delivery System, or JPADS, and Aerial Delivery will be as part of Assured Resupply for Small Units and Squads, especially when they need supplies in dense urban complex terrains,” said Richard Benney, director of NSRDEC's Aerial Delivery Directorate. “Lieutenant General Cardon also provided some suggested alternative uses of JPADS capabilities, some of which we are pursuing and some of which we will pursue.”

Cardon viewed with interest many of NSRDEC's technologies.

“I’ll take two,” said Cardon while looking at the jungle tropical uniform.

Cardon acknowledged the “tremendous power of this organization.”

“This organization touches everyone in the Army,” said Cardon. “I’m really encouraged by what you do.”

Fast Food

DLA cuts backorders for items such as ovens, freezers

By Shawn W. Jones, DLA Troop Support Public Affairs/PHILADELPHIA (Aug. 18, 2017)

When Soldiers want an oven or Sailors need a freezer, the Defense Logistics Agency doesn't want them to wait.

Thanks to the efforts of a group of DLA Troop Support's Subsistence supply chain employees, the number of backorders for military food service equipment and food field equipment items has been hovering near zero for the past several months.

This represents a stark contrast to August 2011, when the supply chain's backorders grew to more than 2,000.

Since 2013, they have averaged no more than 100 back orders at any time before driving it down to zero in early July.

“It's an accomplishment we're proud of,” said Thomas Hall, the supervisor of Subsistence's Group Rations and Equipment branch.

Backorders can lead to quality-of-life and morale-related concerns for service members stationed across the globe.

“If they require a griddle assembly, and we don't have it, well they're not eating pancakes that day or anything else they make on the griddle,” Hall said.

He said his team and fellow Subsistence co-workers in food-equipment acquisitions strive to ensure their customers have the equipment they need to feed the warfighter. An increase in backorders could mean more service members stationed in remote locations must eat prepackaged Meals-Ready-to-Eat, known as MREs, instead of a freshly prepared meal.

“It's all about readiness,” said Rich Faso, Subsistence's deputy director. “No matter the item or the priority, it is important to the overall mission.”

Early last year, former Subsistence Director Navy Capt. Chris Mosher challenged food-equipment employees to reduce backorders.

Hall said they started a regularly recurring meeting to specifically deal with backorders, and they soon identified and implemented several process improvements.

First, they improved communication. Material planners developed a weekly report that helped contracting officers prioritize their efforts in a manner that would mitigate the effects of product demand surges or inventory shortages.

Next, a team was established to track orders after contracts were awarded, said Dean Schoendorfer, the supervisor in charge of the food service equipment buying team. The new post-award team identified several issues, known as quality notifications, which caused delivery disruptions due to minor processing errors.



Photo: MC2 James R. Evans, U.S. Navy

A sailor takes pizzas out of an oven aboard the USS Abraham Lincoln. Employees in DLA Troop Support's Subsistence supply chain strive to eliminate back orders on military food equipment so service members can keep cooking.

With the help of quality assurance specialists, quality technicians, resolution specialists, and other employees in the organization, the post-award team rectified many of the disruptions, ensuring the warfighter received their product in a more timely manner.

“We started with a lot of QNs, but we worked it down to about a dozen,” Schoendorfer said. “We really worked on quality notifications to make sure stock didn't become blocked due to unrelated errors, such as incorrect labeling.”

The food-equipment team also conducts a monthly meeting with the Army Natick Soldier Systems Center, in Natick, Massachusetts, in an effort to increase the lines of communication. The meetings help the team identify potential issues before they became major problems.

Hall said no individual alone could have reached the zero backorder goal.

“This is truly a group effort, from supplier operations to customer operations and our support folks,” he said. “We have a lot of dedicated people who took it as a personal goal to get backorders down to zero.”

While the team met its goal, Faso said there's always room for improvement when it comes to supporting the warfighter.

“Overall, when put into perspective, of the thousands of orders we receive, only a small portion are missed,” Faso said. “But to that customer, it doesn't matter how great we were on everything else to everybody else. To them, we missed, and that bothers us and will make us better suppliers.”



A Click Away

New express license portal allows access to patented technologies

By Jane Benson, NSRDEC Public Affairs/NATICK, Mass. (Aug. 15, 2017)

Thanks to a new express license portal, access to excellence in innovation is just a click away.

The portal enables users to view technologies patented by the [Natick Soldier Research, Development and Engineering Center](#), or NSRDEC, and provides a vehicle to request a commercial license to use intellectual property, or IP. The portal is available at, https://techlinkcenter.org/labs/natick-soldier-research-development-engineering-center/?tech_tag=express-license.

NSRDEC researches and develops cutting-edge technologies for the warfighter in the areas of food and food packaging, parachutes, textiles and clothing, protective gear and shelters -- to name few areas of expertise. The portal was developed by NSRDEC and [TechLink](#), a Department of Defense-funded technology transfer center at [Montana State University](#).

"The express license portal was developed in concert with TechLink to enhance the visibility of valuable NSRDEC technologies and reduce the barriers to entry for potential commercial licensees," said Sheri Mennillo, NSRDEC's technology transfer manager.

Dan Swanson, certified licensing professional, senior technology manager and licensing lead at TechLink, explained that express licensing will provide "greater transparency and lower barriers for everyone involved."

"We are really launching two things here," said Swanson. "The first is a Natick view or 'store,' which contains all IP, or inventory, in one place. This will be convenient for the entire Natick community -- inventors, attorneys and management, as well as universities and companies interested in working specifically with Natick. The second is 'express licensing.' This feature enables the user to search for and conduct online due diligence on specific IP. Express licensing also offers transparent pricing and enables the user to apply for a license online and track its progress to completion. Together, I think these two features will increase Natick's effectiveness in reaching and doing business with the rest of the world."

The website provides a summary of each available technology and gives standardized, pre-negotiated financial terms for the types of licenses being offered for a particular technology. Types of licenses include exclusive, partially exclusive (limited to a particular field) or non-exclusive. Items that have the "express license" designation are eligible for the faster automated process.

"Potential licensees are encouraged to complete a patent license agreement application through an online portal," said Mennillo. "If the application is approved by NSRDEC's Office of Research and Technology Applications, the information submitted as part of the application and the applicable financial terms will be automatically populated into a standardized patent license agreement containing pre-negotiated business and legal terms."

Mennillo explained that the website includes other NSRDEC patents that are not currently available for express licensing. Interested parties can access these patents by clicking on the "patents" tab in the black bar towards the top of the webpage.

Revenue earned from licensing NSRDEC inventions will go back into NSRDEC research.

"Revenue distributions received at the directorate level may be used to fill a funding gap in mission-related scientific research and development," said Mennillo.



A new express license portal enables users to view technologies patented by the Natick Soldier Research, Development and Engineering Center, or NSRDEC, and provides a vehicle to request a commercial license to use intellectual property. The Blast Debris Protective Harness (pictured here) is one of the inventions available for express licensing.

NSRDEC's inventions not only benefit the warfighter but also first responders and the general public.

"Many of our technologies are dual-use," said Mennillo. "While the impetus for the invention is military need, the invention may also have commercial applications that may benefit emergency responders, humanitarian aid organizations and the public at large. One example is the Insulated Container for Cold Beverages, or ICB. It was developed to replace the use of commercially available coolers in vehicles, which can become projectile hazards. The ICB can not only maintain the cool temperature of beverages for an extended period of time but is a ruggedized alternative that may be attractive to fishermen, hunters and other sporting enthusiasts."

The list of inventions available for express licensing is continuously growing. A few of the current available inventions include the Linear Rope Brake System for Aerial Delivery, Blast Debris Protective Harness, Portable Chemical Sterilizer, Chlorine Dioxide for Surface Decontamination and the Body Heating and Cooling Garment.

The express licensing portal will mean even more people and organizations will benefit from NSRDEC's innovations.

"In addition to our primary mission in support of America's warfighters, we have an obligation to maximize the public's opportunities to benefit from federally funded R&D," said Jeff DiTullio, Business and Outreach team lead at NSRDEC. "The streamlined structure of the express licensing process is intended for positive impact on both fronts."

"We hope that this feature will attract new organizations and entrepreneurs that see the value in bringing these dual-use inventions to the public," said Mennillo. "To many of these parties, navigating a government licensing process may seem like a daunting prospect. Our goal is to eliminate uncertainty as a barrier to entry, through transparency as to the financial and business terms of the proposed license."

Among Giants

Chemist awarded prestigious honor

By Jane Benson, NSRDEC Public Affairs/NATICK, Mass. (July 31, 2017)

Even for a scientist as experienced and renowned as Dr. Christopher Doona, there is a first time for everything.

Doona is a physical chemist at the [Natick Soldier Research, Development and Engineering Center](#), or NSRDEC. He is the recipient of the 2017 [Institute of Food Technology](#) Industrial Scientist Achievement Award, a prestigious honor from the world's largest food science organization that recognizes significant contributions in advancing the field of science. Doona's win marks the first time a Natick scientist has received this award.

IFT recognized Doona's outstanding innovations in nonthermal processing technologies that contributed to improved safety and human health during the worldwide [Ebola](#) crisis. As an internationally recognized leader in nonthermal processing, Doona's research includes chemistry, microbiology, high pressure processing, bacterial spore physiology, hurdle technology, multifunctional materials, decontamination, graywater recycling and the recent development of novel chlorine dioxide technologies that filled critical public health needs to stop the spread of disease from the Ebola virus.

Doona's inventions were fielded in West Africa during the international Ebola crisis for use by health care professionals from the World Health Organization, National Institutes of Health, and Public Health Canada for medical sterilization (<http://journal.frontiersin.org/article/10.3389/fmicb.2015.00663/full>).

"I've been a member of IFT for a little more than 20 years," said Doona. "It's one of the leading professional science organizations with members from 90 countries around the world. Receiving the 2017 IFT Food Technology Industrial Achievement Award is a flattering recognition of my scientific accomplishments. I'm honored to be esteemed by fellow IFT scientists, whom I have esteemed for generations for their research."

Doona is grateful to Natick for providing the groundwork of his scientific journey. He is also thankful to colleagues, including research microbiologist Florence "Chickie" Feeherry, and others present and past, with whom he has had the good fortune to have collaborated. He is proud to have earned his most recent award, particularly since it is a Natick first.

"It makes me appreciate Natick's legacy of luminary scientists who were giants in their fields -- like Irwin Taub, Hie-Joon Kim, Hill Levinson, Elwin Reese, Mary Mandels and Bill Porter," said Doona. "I hope our current R&D efforts can shine as brightly for future generations of our young scientists, too."

Never one to rest on his laurels, Doona and his colleagues are hard at work finding more innovative solutions to real-world problems

(<https://www.jove.com/video/4354/the-portable-chemical-sterilizer-pcs-d-fens-d-fend-all-novel-chlorine>).



Photo: Institute of Food Technology

Dr. Christopher Doona, right, is the recipient of the 2017 Institute of Food Technology Industrial Scientist Achievement Award, a prestigious honor from the world's largest food science organization that recognizes significant contributions in advancing the field of science.

"In addition to the Ebola disinfectant, we have two new disinfectant inventions that can be used to kill mold on parachutes, tents and shelters; to decontaminate [Anthrax](#) spores on individual protective clothing; and to deodorize specialized garments, like those used in extreme cold weather," said Doona. "I'm looking forward to integrating these inventions for other applications, like multifunctional materials for uniforms. I find it very rewarding to work on basic research as a way to solve applied problems, and to come up with actual solutions that help Soldiers in the field. We thank them and their families for their service to our country."

“We need to make every single thing accessible to every single person with a disability.”

— Stevie Wonder

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