



# APG NEWS

Published in the interest of the people of Aberdeen Proving Ground, Maryland

www.TeamAPG.com

THURSDAY, SEPTEMBER 22, 2016

Vol. 60, No. 38

## inside

### PREVENTION

An Aberdeen family shares the story of their son lost to suicide following a substance abuse battle in 2014.

Family | A3

### COMMUNITY

MRICD's equal opportunity committee donates items to local Sexual Assault/Spouse Abuse Resource Center.

MRICD | A4

### IN MEMORIAM

A local Gold Star Mother keeps the memory of her son alive by giving aid to other military families.

Gold Star | A6

## newsbrief

### BALTIMORE CITY TO APG COMMUTER BUS TO BEGIN OCT 3

Staff report

The commuter bus service between Baltimore City and Aberdeen Proving Ground is set to begin service starting Monday, Oct. 3.

The bus service is the result of a joint effort between the Maryland Transit Administration, or MTA, and Aberdeen Proving Ground.

The effort is targeted at the more than 600 Team APG personnel who currently live in Baltimore City or near White Marsh in Baltimore County and commute to the Harford County Army installation more than 30 miles north.

According to Syreeta Gross, a garrison contractor who manages the installation's Commuter Center, efforts to bring additional public transportation options to APG began more than five years ago. State funding issues ruled out additional train stops, she said, turning the focus to vanpools and buses. In late 2015, Maryland

See BUS, page A2

## online

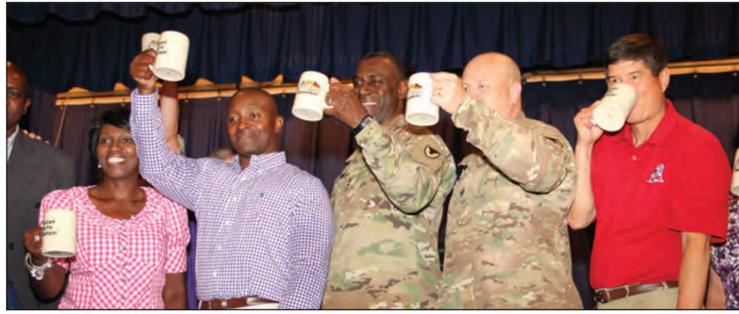
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Photos by Yvonne Johnson, APG News

Clockwise from top, left, APG Senior Commander Maj. Gen. Bruce T. Crawford, second from left, and his wife, Dianne, left, are joined by RDECOM Maj. Gen. Cedric T. Wins, center; RDECOM Command Sgt. Maj. James P. Snyder, second from right; RDECOM Executive Deputy Jyui D. Hewitt, right; and a host of other invited guests not shown, lead the opening keg tapping ceremony for the 2016 APG Oktoberfest at the APG North (Aberdeen) recreation center, Sept. 16; the Edelweiss Band adds "Oompah" to the Oktoberfest festivities; an Edelweiss Band member sets the mood for the opening ceremony with an Alpine horn solo.

## APG celebrates Oktoberfest

By YVONNE JOHNSON and RACHEL PONDER  
APG News

The tap of a keg and a roar of approval kicked off the APG 2016 Oktoberfest, a two-day celebration centered at the APG North (Aberdeen) recreation center Sept. 16 and 17.

The traditional German celebration is

one of the world's largest festivals, recognized each September and October in cities around the world. The APG festival mixed tradition with 21st Century entertainment. While it featured traditional German foods, beer, and music courtesy of The Edelweiss Band, attendees also enjoyed a family fun area with inflatable rides for youngsters, a car and bike show,

and bingo sessions courtesy of Morale, Welfare and Recreation. A Saturday morning volkswarmch kicked off the second day of festivities.

On Friday, APG Senior Commander, Maj. Gen. Bruce T. Crawford, led the official tapping of the Oktoberfest keg to open

See OKTOBERFEST, page A7

## Soldiers break down patriotism for kids

Story and photos by STAFF SGT. ANGEL D. MARTINEZ  
20th CBRNE Command

As a continued commitment to the community, Soldiers from the 20th CBRNE (chemical, biological, radiological, nuclear and explosives) Command spent part of the afternoon with children from Bel Air Elementary School, Sept. 13.

As part of the school's Patriot Program, Soldiers were invited to speak about patriotism.

"I think the Soldiers provided the students with a clear visual of what it means to be a Patriot," said Dyann Mack, school principal. "Their presence in our school and their willingness to share the role of patriot with our entire school community is motivating and encouraging."

See PATRIOTISM, page A7

Capt. Omayra Velez, from the 20th CBRNE (chemical, biological, radiological, nuclear and explosives) Command, ties a student's shoe lace during a visit to Bel Air Elementary School's Patriot Program, Sept. 13.



## Expo hits homerun for health

Stephanie McMonigle, with the U.S. Army Materiel Systems Analysis Activity, or AMSAA, uses a fat loss monitor to calculate body fat percentage and body mass index with help from Health Promotion Technician Lowrell Bellard, of the APG Army Wellness Center, during the Home Run to Health Expo in Bldg. 330 Sept. 15.

The event, hosted by AMSAA, featured 23 local vendors, covering a variety of health-related subjects like nutrition, yoga, financial wellness, ergonomics, tobacco cessation, emergency preparedness and stress management.

AMSAA Director James Amato called the event "terrific."

"There is nothing more important than the health and well-being of the workforce, the whole AMSAA team," he said. "So we are happy to put this event on for not just AMSAA but for all of APG."

Photo by Rachel Ponder, APG News



## index

Street Talk | A2

All Things Maryland | A5

Mark Your Calendar | A8

MWR Events | A8

# STREET TALK

September is Emergency Preparedness Month.

## What do you and your family do to prepare for an emergency?

"We don't actually prepare for something coming, unless we know ahead of time. And then we'll go out and stock up on water and necessities like that."



**Stacy Altland**  
Maryland National Guard

"I'm kind of a cheater. Because of being in the service, we have everything we need and [then] some. So we always have the house prepared for inclement water ... if something happens, we have what we need in the house."



**Julio Martinez**  
Retired Army

"Stock up on water and things that won't perish. Have food in the house, and gas in the car, and a little bit of cash."



**Susan Kelley**  
Family Member

"We don't. Sadly we don't do anything."



**Heather Graham**  
Family Member

"Well, my wife is a retired nurse so we have set standards that we follow through all year long."



**Kurt Schaefer**  
Retired Army

# Commander's Corner

## Gold Star Mothers and Family Day

Sunday, Sept. 25 is a day of remembrance to pause and reflect in honor and support of over 75,000 Gold Star Mothers and Families. We pause to pay respect for their sacrifice and the sacrifice their service member made in defense of our great Nation. We open our hearts and lend support as a way to help them continue to be a resilient legacy for their loved one. Gold Star Mothers and Families must never be forgotten.

The term "Gold Star" stems from a World War I tradition. Families with members in the service, would display a flag bearing a blue star for each member of the family in service. That blue star was replaced with a gold star to honor those who died in service to our Nation. The county and our Army will always be indebted to Gold Star Mothers and Families for their resiliency in the face of their loss and their service member's ultimate sacrifice. This day serves as an opportunity to pay our respects in tribute to the fallen.

While today is dedicated to remembrance, Gold Star Mothers and Families are an important and ongoing part of today's Army. They remain vital and active members of our Army community, a symbol of resilience and perseverance. Our community and our services remain open to them for as long as they desire. They are symbols of honor and great emotion easily associated with the untold risks and perils our military --- their sons, daughters or other relatives --- face each and every day. They might wear lapel pins or other symbols representing their ongoing resiliency; they may not. If you see such a symbol please understand and show them the appropriate respect, a simple acknowledgement that he or she has lost a loved one in service to our Nation.

As an active duty Soldier and as parents of a Soldier, Dianne and I are acutely aware of the risks and perils faced by our loved ones as they stand point, often in harm's way, protecting the life and liberties America holds dear. So please join



Courtesy photo  
(From left) Dianne Crawford and Maj. Gen. Bruce T. Crawford, APG senior commander, pause for a photo with Janice Chance, president of the Maryland chapter of the American Gold Star Mothers, during the Surviving Families Luncheon at APG, March 9.

us in saluting what I consider to be national treasures and pillars of strength and resiliency ... Our beloved Gold Star Mothers and Families.

Trusted Professionals, Professionals Always – Army Strong!

**MAJ. GEN. BRUCE T. CRAWFORD**

APG Senior Commander  
Commanding General, Communications-Electronics Command

## Bus to serve major hubs on APG North

Continued from Page A1

Gov. Larry Hogan announced the Baltimore Link program, appropriating nearly \$200 million to overhaul the city's transit system and help aid transportation efforts to connect Baltimore City residents to regional employers, Gross explained.

"They're aware of what we do here at APG. We're trying to recruit young engineers and scientists to support the R&D mission and they want to live in metropolitan areas," Gross said. "[Implementing this new route] just makes sense."

The Baltimore/Aberdeen Proving Ground commuter bus line No. 425 will operate the following schedule:

**Northbound Weekday Morning Service:** To operate between existing stops in Baltimore City and Aberdeen Proving Ground. The northbound route will leave its originating stop, Wolfe St. & Monument St. at Johns Hopkins Hospital, in Baltimore City at 5:10, 6:10 and 7:10 a.m., arriving to its last stop at the GATE Complex on APG North (Aberdeen) at 6:50; 7:50; and 8:50, respectively.

**Southbound Weekday Afternoon Service:** To operate a similar route, in reverse. The southbound route will leave its originating stop, Raritan Ave. & Havre de Grace St. on APG North at 3, 4 and 5 p.m., arriving to its last stop in Baltimore City, Monument St. & Wolfe St. at 4:33, 5:33 and 6:33, respectively.

The commuter bus is proposed to stop at several buildings on APG North, including several stops at the C4ISR Campus, Bldg. 2202, and the GATE Complex near the Rt. 715 gate. At this time, the commuter bus is not sched-

uled to stop at APG South (Edgewood), but the route will stop at the Edgewood Shopping Center.

**Federal Employee Mass Transit Benefit Program**

As of Jan. 1, federal employees can receive up to \$255 a month for commuting costs when utilizing a vanpool, train or bus. The maximum cost for a month-

ly pass to utilize the Baltimore/APG commuter bus line No. 425 is \$170.

For more information about commuter services at APG or the Mass Transit Benefit Program, contact Gross at syreeta.a.gross.ctr@mail.mil or 410-278-5491. For more information about the Commuter Bus No. 425, visit [mta.maryland.gov/advisories/commuter-bus-newly-proposed-route-425](http://mta.maryland.gov/advisories/commuter-bus-newly-proposed-route-425).



Full route information, times and fares can be found online at [mta.maryland.gov/advisories/commuter-bus-newly-proposed-route-425](http://mta.maryland.gov/advisories/commuter-bus-newly-proposed-route-425).

## See Something

Cut along dotted lines and fold in middle for use as wallet reference Card.

Provided by the INTEL DIV/DPTMS

## Say Something

INSTALLATION WATCH CARD

### DO OBSERVE & REPORT

- Suspicious activity or suspected surveillance.
- Unusual questions or requests for information relating to capabilities, limitations, or operational information.
- Unusual vehicles operating in or around APG.
- Unusual phone calls, messages, or e-mails.
- Unusual contacts on or off post.
- Unusual aerial activity near or around installation.
- Any possible compromise of sensitive information.



INSTALLATION WATCH CARD

### DON'T

- Discuss any aspect of military operations or planning.
- Discuss military capabilities or limitations.
- Discuss FP measures, capabilities, or posture.
- Disclose information about R&D and testing.

Report suspicious activity immediately to APG Police!



APG (North & South): 410.306.2222  
Off Post in Maryland call 1-800-492-TIPS or 911

Card created by APG Intel



# APG NEWS

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Deadline for copy is Thursday at noon for the following Thursday's paper.

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# Family finds purpose from tragedy, advocates for suicide prevention

Story and photo by  
**LAUREN FINNEGAN,**  
APG News

Something as simple – and often taken for granted – as a hug is what Aberdeen resident Jennilyn Landbeck said she misses most about her son Maxwell Defiance Landbeck, who took his own life on July 13, 2014, after years of battling drug abuse.

Jennilyn Landbeck and her husband John spoke during a Suicide Prevention Awareness Training on APG North (Aberdeen), Sept. 19, hosted by the Army Material Systems Analysis Activity. Approximately 80 AMSAA employees attended the training held in conjunction with Suicide Prevention Awareness Month.

AMSAA Director James Amato said he thought that it was important for AMSAA employees to be aware of the magnitude of the problem of suicide.

“Suicide is not unique to Soldiers. Suicide is not unique to Army civilians,” he said. “It affects the whole community.”

The program included a presentation by the Landbecks, who shared the personal struggle and eventual suicide of their son in 2014.

John Landbeck said that he and his wife knew from the day that Maxwell committed suicide that they wanted to do something to try and help others.

“I felt very, very strongly, even for my own children that I needed to put what happened to [Maxwell] in context,” he said. “We wanted to be honest about what had happened... It gives meaning to our experience. I want other people to know what we know without having this to happen to them.”

The Landbecks work with the Harford County Office on Drug Policy to share their experience with groups in the area. Jennilyn Landbeck was recently named to the Governor’s Commission for Suicide Prevention.

She said she hopes, “to reassure survivors that they are not alone,” and to find where suicide prevention education is lacking.

She added that she wants those who



Aberdeen resident John Landbeck talks about suicide as a slideshow displays a photo of his son, Maxwell Defiance Landbeck, who committed suicide in 2014 following years of substance abuse. John Landbeck and his wife Jennilyn, who work with the Harford County Office on Drug Policy, spoke to employees of the U.S. Army Materiel Systems Analysis Activity during a suicide prevention awareness training on APG North (Aberdeen), Sept. 19.

are thinking about suicide to know that they matter. She simply wants to tell them, “You have value and you need to stay. Someone loves you as much as I love my son.”

#### Ask - Care - Escort

APG Suicide Prevention Program Manager Lamont Cogger spoke to attendees about the risk factors and warning signs of suicide and informed them about the Army-approved suicide prevention and awareness training model known as ACE.

ACE stands for Ask, Care, and Escort, which are important steps in the process of getting people help.

Cogger stressed that it is vital for the attendees to get out of their com-

fort zone and be willing to directly talk to someone who is showing warning signs of suicide. The question, “Are you thinking about committing suicide?” is the first step in the process, he said.

#### Talking about life

Talking about suicide is seen as taboo, Cogger continued. There is belief that discussing the topic, or directly asking a person if they are thinking about it, may push them over the edge, but that is not the case. Asking is a necessary component to being successful in preventing suicide.

“We have to talk about life,” Cogger said. “Because that’s what suicide is, it’s talking about living.”

Cogger said that caring is the biggest piece of the equation. Individuals should check in with their coworkers, family, or friends on a regular basis and actively listen to them. Showing someone that they matter, and what they have to say has value can go a long way.

“All the training... they offer for suicide prevention is great... but it’s just not enough. You have to get the loved ones, the friends, the family members, and the coworkers to identify those warning signs, and most of all respond to them,” he said.

“Care for your coworkers, care for your family, care for your friends,” he added.

“All the training, the different venues that they offer for suicide prevention training is great, its spectacular, but it’s just not enough. You have to get the loved ones, the friends the family members, the coworkers to identify those warning signs, and most of all respond to them.”

He said asking and caring can’t be the only steps in the course of action. There has to be a follow through, and that is where escort comes in.

If the answer to the question, “Are you thinking about committing suicide?” is a yes, making an appointment for your co-worker or family member is a good start, but can’t be the end of a person’s involvement in getting help. A suicidal person should never be left alone, and if they refuse to be escorted to help, have help come to them with a call to 9-1-1.

“You can set a person up on appointments for the next day, but what about all the way until he gets to the next following day... You’re giving him more resources, but those thoughts aren’t gone. We’ve got to see it through, and that’s where a lot of people drop the ball. We care, but we don’t continue to care,” Cogger said.

For more information about the APG Suicide Prevention program, contact Cogger at 410-278-7779, or email lamont.a.cogger.civ@mail.mil.

## Leave Donations

To participate in the Voluntary Leave Program, use forms OPM 630, Application to Become a Leave Recipient Under the Voluntary Leave Transfer Program; OPF 630-A, Request to Donate Annual Leave to Leave Recipient Under the Voluntary Leave Transfer Program (within agency); or OPM 630-B, Request to Donate Annual Leave to Leave Recipient Under the Voluntary Leave Transfer Program (outside agency). Please contact Sue Campbell at 410-306-0266 or sue.a.campbell8.civ@mail.mil

### Employees eligible for donations in the Voluntary Leave Transfer Program

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Gaddis, Lonnie	Rahman, Tupa C.	Villanueva, Jenny

# By THE NUMB#RS

## National Voter Registration Day

National Voter Registration Day is Tuesday, Sept. 27. Across the country, volunteers, celebrities, organizations and businesses will come together to raise awareness and help potential voters with the registration process. Learn more about voting registration in the U.S. with these facts.

**218,959,000**

Number of Americans eligible to vote.

**146,311,000**

Number of Americans registered to vote. Only 57.5 % of eligible Americans voted in the 2012 Presidential election.

**23**

Years since Congress enacted the National Voter Registration Act, also known as the "Motor Voter Act," to improve voting opportunities for every American. This act required state governments to offer voter registration opportunities to any eligible person who applies for or renews a driver's license or public assistance.

**4**

Years since National Voter Registration Day was founded. More than six million Americans reported that they didn't vote as a result of missing the registration deadline or not knowing how to register.

**3**

Number of ways eligible Americans can register to vote: online, by mail or in person.

By **RACHEL PONDER**, APG News

Source(s): <https://vote.usa.gov/>; <http://www.statisticbrain.com/voting-statistics/> <http://www.nationalvoterregistrationday.org/>



Photo by Pamela Kaye, MRICD

Surrounding a table laden with donations to the Harford County Sexual Assault/Spouse Abuse Resource Center from the U.S. Army Medical Research Institute of Chemical Defense are (from left) MRICD Equal Opportunity Committee members Staff Sgt. Trenise Porch-Sylvester, Sherwin Sapasap, and Spc. Stephanie Kaham-Ward, Master Sgt. Joretha Carodine and SARC CEO Luisa Caiazzo (front, center).

## MRICD team donates items to SARC pantry

By **CINDY KRONMAN**  
MRICD

The equal opportunity committee at the U.S. Army Medical Research Institute of Chemical Defense found a unique way to recognize Women's Equality Day this year: they collected nonperishable food, paper supplies and personal hygiene items from coworkers during the month of August and, on Sept. 12, delivered the donations to SARC, or the Sexual Assault/Spouse Abuse Resource Center, in Bel Air, Maryland.

SARC Chief Executive Officer Luisa Caiazzo, and Jill Fellman, the organization's community outreach coordinator, received the donations from MRICD's senior enlisted advisor Master Sgt. Joretha Carodine, and committee members Spc. Stephanie Kaham-Ward, Staff Sgt. Trenise Porch-Sylvester, and Sherwin Sapasap.

"SARC is very grateful for these generous donations to our food pantry," Caiazzo said. "Support like this from the community is critical toward meeting SARC's mission to support victims of violence."

"When planning something for Women's Equality Day, we started by look-

ing at issues women face, for example, seeking employment after being in a domestic violence situation," said Porch-Sylvester, explaining what prompted the donation.

Such considerations, continued Porch-Sylvester, led the committee to SARC, which offers a variety of services, including safe housing, to individuals escaping domestic violence. They discovered that the organization was running low on supplies in the safehouse pantry and was at the time holding a Christmas in July campaign to increase donations to cover this shortfall. Realizing that such items would be constantly in demand, the committee decided to, in a way, extend SARC's campaign by collecting donations within the MRICD as their way of commemorating Women's Equality Day.

Kaham-Ward took the lead in the project, contacting SARC, alerting MRICD staff, and setting up donation boxes. Employees generously donated a variety of food, including kid-friendly Pop Tarts and peanut butter—especially appreciated by the SARC staff—as well as hygiene products, such as tooth paste and body wash.



U.S. Army photo

## APG spouses celebrate 'Our Times Together'

Residents and friends of APG's Plumb Point Community were invited to a social gathering at Quarters One on APG North (Aberdeen), Aug. 24.

Hosted by Dianne Crawford, spouse of APG Senior Commander Maj. Gen. Bruce T. Crawford, the event titled "Our Times Together" celebrated the spirit of camaraderie within the community. Plumb Point neighbors and friends, including local Gold Star Mothers, spent the evening welcoming new APG spouses while enjoying a "sneak peak" at Quarters One, the official residence of the APG senior commander.

"This event was a wonderful opportunity to reconnect with neighbors and old friends, many of whom have been traveling over the summer," said Lt. Col. Mary E. Card-Mina, Staff Judge Advocate, Army Materiel Command Legal Center-APG. "It was great to welcome and greet new members of the plumb point community and other special guests."

In her invite to guests, Dianne Crawford chose the words of author Patrick Lindsay to iterate her feelings about the occasion "Every new friend is a new adventure...the start of more memories," she quoted.



# ALL THINGS MARYLAND

## Western Maryland Scenic Railroad

Train ride provides unique view of geographical and man-made landmarks

By **RACHEL PONDER**  
APG News

This fall, appreciate autumn foliage and the majestic Allegheny Mountains with a leisurely ride on the Western Maryland Scenic Railroad.

Established in 1988, and based out of Cumberland, the Western Maryland Scenic Railroad, or WMSR, provides scenic railroad steam excursions and specialty trains through the Western Maryland mountains. WMSR operates over the former Western Maryland Railway line using restored diesel and steam locomotives.

Visitors on the "Mountain Limited" scenic excursion, for example, will ride in a Western Maryland #501 diesel train originally built in the 1960s. During the two-and-one-half hour tour, a narrator on-board provides passengers with historical and cultural facts as the train pulls through natural cuts in the mountain like the Cumberland Narrows, also known as "the Narrows," which was considered "America's First Gateway to the West."

A highlight of the trip is the scenic hairpin turn called "Helmstetter's Curve," a half-mile arc that spans across Cash Valley. According to Public Relations Director Desiree Bullard, "Helmstetter's Curve" is one of the most famous railroad landmarks east of the Mississippi River and a favorite photo spot for railroad enthusiasts.

Another notable landmark is the "Brush Tunnel" a 914-foot railroad tunnel, constructed in 1911. Located about one mile west of Corriganville, the Great Allegheny Passage bicycle trail also runs through the tunnel.

The most popular time to ride the WMSR is in October, when visitors can see the colorful autumn leaves, Bullard said.

"We operate seven days a week in October," she said. "It's highly recommended that guests reserve seats well in advance."

She added that Mountain Limited scenic excursions appeal to all ages, and are "very family friendly."

"Our passengers enjoy everything from the lovely mountain scenery to the history of the area," she said. "The offer of a relaxing train ride through the mountains is very appealing to a lot of people."

According to Bullard, WMSR aims to recreate the "1940s passenger train experience." The railroad offers coach, lounge and first class service, as well as



Courtesy photo by Bill Merlavage  
(Above) The Western Maryland #501 diesel train travels on a hairpin turn called the "Helmstetter's Curve," a half-mile arc that spans across Cash Valley, on the route of the Western Maryland Scenic Railroad.



Courtesy photo  
(Left) The restored Western Maryland Railway Station in Cumberland, serves as the operating base for the Western Maryland Scenic Railroad. Built in 1913, the station is on the National Register of Historic Places.

reserved caboose rides.

"Train excursions remind folks of an era long past and offers those who don't have that same recollection the opportunity to understand what passenger train travel was like," she said. "When passengers visit WMSR they step into another era."

Typically the train stops in the "Mountain City" of Frostburg, located eight miles west of Cumberland. Due to track damage from a landslide that occurred earlier this year, WMSR has temporarily ceased stops in Frostburg.

"We currently stop at a scenic loca-

tion where guests can disembark the train and see the engine and caboose, Bullard said.

In addition to the traditional scenic tours, WMSR hosts evening interactive "murder mystery" and holiday-themed train rides, like the popular "North Pole Experience" set for Nov. 18 through Dec. 18. In 2017, WMSR will add Valentine's Day and Easter excursions.

The WMSR is currently restoring a Chesapeake & Ohio #1309 Steam Locomotive, originally built in 1949. When completed, it will be the largest and most powerful steam locomotive still in reg-

ular operation in the U.S. This restoration project is estimated to be completed next year.

"The 1309 will become the primary engine for all of our Mountain Limited and specialty excursions, but we may still use diesel for the Evening Paradise Dinner Train," Bullard said.

WMSR trains depart from the Western Maryland Railway Station, located at 13 Canal Street, Cumberland, MD, 21502. For more information, visit the WMSR website at [www.wmsr.com](http://www.wmsr.com); call 240-920-6273; or email [trainmaster@wmsr.com](mailto:trainmaster@wmsr.com).



## Annual golf outing benefits TAPS

Peter Cannito, CEO of EOIR Technologies, lines up his stroke during the TAPS Golf Outing at Ruggles Golf Course Sept. 15. Hosted by EOIR, the 9th annual event raised \$76,000 last year, and had surpassed \$88,000 the morning of the tournament.

TAPS, or Tragedy Assistance Program for Survivors, assists survivors grieving the loss of a member of America's armed forces through a national support network and connection to grief resources.

"We're hoping to reach that high because TAPS supports the military and that makes it a very special program to us," Cannito said. He added that participation on and support for the event remains high, noting that with 144 golfers on the ground it's the only tournament that "maxes out every year at Ruggles."

Photo by Yvonne Johnson, APG News



Come and follow us <https://twitter.com/USAGAPG>

# Local Gold Star Mom keeps son's memory alive through memorial fund

By **LAUREN FINNEGAN**  
APG News

Robyn Anderson was sleeping soundly in her Parkton, Maryland home in October 2005 when she suddenly found herself sitting up, wide awake and breathing deeply. The time, 3:25 a.m., glowed from her clock and despite a strange feeling in the pit of her stomach she laid down and tried to go back to sleep.

Anderson realized later that the feeling of sudden unease occurred at the same time that an explosive device detonated more than 6,000 miles away, killing her only son, U.S. Marine Lance Cpl. Norman "Wally" Anderson III.

Earlier that morning, while Lance Cpl. Anderson was conducting a patrol in Karibalah, Iraq with 20 of his fellow Marines, a car rolled toward them down the narrow roadway.

The driver was given the signal to stop and back down the street; he complied. Moments later, however, the car hurtled around the corner headed straight at them.

Anderson's split-second decision to run towards the vehicle while firing at the driver saved the lives of his whole patrol that day, but cost him his own. The car, which was fitted with explosives, detonated and killed Anderson instantly.

Hours later, on what Robyn Anderson remembers as a "beautiful, absolutely gorgeous day," she was at her daughter's house watching her grandson when she got a call from her husband, who had already received the tragic news. With no trace in his voice of the burden he carried, he asked when she would be back.

Having no inkling, Robyn, took her time leaving. The moments before she arrived home, she said, would be the last of life as she knew it. Her world changed forever.

"You never think it's going to be your son who doesn't come home," Anderson said. "My normal is a new normal now. The hurt, the loss, the pain is never going to go away."

Six weeks later, another local family received the same devastating news. Lance Cpl. Anderson's friend, fellow Marine, and 2002 Hereford High School classmate, Cpl. Josh Snyder succumbed to wounds sustained in a small-arms battle while conducting combat operations in Fallujah, Iraq.

Although this compounded the tragedy for the community, it also brought Robyn Anderson together with Snyder's mother, Doris Snyder, who, like Robyn, was looking for a way to make sure that her son was not forgotten.

The two grieving mothers were told that money was being donated to Hereford High School in remembrance of the men, which led to the creation of the Anderson-Snyder Scholarship Fund. The mothers began awarding two \$1,500 scholarships to students with a "kind heart and soul" from Hereford each year.

While both Anderson and Snyder knew that their sons would be proud of what they were doing, they realized that they would want them to do more.

"We were talking... and it came up in conversation that Norman and Josh would really want to help the military and their families. It's just in their blood to do something like that," Anderson said.

They decided to change the name of the fund to the Anderson-Snyder Memorial Fund to signify their new mission. With that change, the good they were already doing for the community grew tenfold.

In addition to two yearly scholarships, Anderson and Snyder held their first annual Bull Roast in 2006. The event drew about 1,300 people, and raised more than \$50,000 to help active



Photos courtesy of the Anderson family  
(Above) Parkton, Maryland resident Robyn Anderson poses with her son, U.S. Marine Lance Cpl. Norman "Wally" Anderson III on May 4, 2004 at Camp Lejeune, North Carolina before he deployed to Afghanistan. Lance Cpl. Wally Anderson was killed in action on Oct. 19, 2005 during a deployment in Iraq.



(Left) The late U.S. Marine Lance Cpl. Wally Anderson smirks at the camera during a family vacation to Atlantic Beach, North Carolina, Aug. 24, 2005. The whole Anderson family came to see the Marine off prior to his deployment to Iraq.

A Gold Star Mother, Robyn Anderson keeps the memory of her son alive by helping other military families through memorial fund. Anderson created the Anderson-Snyder Memorial Fund with another local fellow Gold Star Mother Doris Snyder to assist military families in times of need. Snyder's son, Cpl. Josh Snyder died Nov. 30, 2005 of wounds sustained from small-arms fire in Fallujah, Iraq.

duty service members and veterans.

"Once we raised that much money, and we realized the support for a cause like this was out there, we decided to keep doing it," Anderson said.

Since that first event, they've held 10 bull roasts and multiple poker runs to continue raising money for the fund.

To identify service members in need, they started working closely with the Maryland National Guard, but have since fostered a close relationship for the past seven years with the Service to Armed Forces department of the American Red Cross, Greater Chesapeake Region.

Cyndi Ryan, the regional director of the Service to Armed Forces department, said the Anderson-Snyder Memorial Fund has helped veterans and active duty service members get back on their feet in times of emergencies. The fund has helped families avoid evictions, get their utilities turned back on, put food on their tables, and much more.

"Robyn Anderson is by far one of the most compassionate, real, and loving people I have ever worked with," Ryan said. "She accomplished the incredible

task of raising an American hero and then followed that by building on her son's courage to help those that also agreed to risk it all for our nation."

Aaron Sanford, a fellow Marine who served with Lance Cpl. Anderson, and who was injured during the blast that took his life, kept in touch with the Anderson family throughout the years, and made sure that he and his wife Tracy, along with several others from their former platoon, attended the bull roasts every year to remember their friend and to support the fund.

Little did Sanford know, but Lance Cpl. Anderson would come to his aid again — just as he did that fateful day in Iraq.

In January 2013, the Sanfords were celebrating the birth of their second child Beckett, when at 4 weeks old, he suddenly became ill and had to be rushed to the hospital after he stopped breathing. Beckett was diagnosed with Respiratory Syncytial Virus, also known as RSV, and bronchitis. He endured a 10-day hospital stay with his parents by his side.

Tracy Sanford said, "We had asked for many prayers. At the end of those

10 long and exhausting days, we were thankful to bring our little guy home alive and well."

With Beckett healthy and back at home, the Sanfords were settling back into their life when the large bills for his hospital stay started arriving.

Anderson had followed the news of Beckett's birth and illness through social media. When she realized what a toll his illness was taking on the Sanfords, both emotionally and financially, she wanted to help.

A few weeks later, Tracy Sanford was going through a pile of mail, when she noticed an unusual envelope. Inside it was a card that included a check from the Anderson-Snyder Fund for Beckett's hospital bills.

Tracy said she was shocked and grateful by the unbelievable gift.

"After what Robyn and Norm went through with losing their son, and to turn it into something good by helping other families out means so much... We know that [Lance Cpl. Anderson] is looking down so proud."

As for the future, Robyn Anderson said she plans to continue helping the military "until the day she dies," so people don't forget.

She added, "To our military, we should be forever grateful to them because if it weren't for our men and women who serve, I don't know where we would be. If you do nothing else... [for our military], just say thank you for your service."

"To just show one person that little piece of appreciation. I don't think people know what a difference that can make for a person."

**Robyn Anderson... accomplished the task of raising an American hero and then followed that by building on her son's courage to help those that also agreed to risk it all for our nation.**

**Cyndi Ryan**

Service to Armed Forces Regional Director,  
Greater Chesapeake Region American Red  
Cross

## Who are Gold Star Mothers and Families?

The last Sunday of every September since 1936 has been designated as Gold Star Mother's Day to honor sacrifices not only of our fallen service members, but of the mothers that they have left behind.

Mothers of service members who have died in combat are designated as Gold Star mothers because of the service flag that families started flying in their window during World War I.

These flags are white with a red border and a blue star in the middle for each serving family member. But if that service member is killed in action or dies in service, that blue star is then replaced by a gold one, signifying that person's ultimate sacrifice.

This wartime tradition is what gave birth to the group, Gold Star Mothers, which is now a veteran's service organization with chapters throughout the country.

It all started with a mother named Grace Darling Seibold, whose son died during combat operations in France during World War I. Finding comfort in sharing her grief with other mothers of the fallen, she organized the first group of "Gold Star mothers." The group not only comforted each other, but also helped care for wounded veterans in hospitals far from their home.

The group eventually expanded, and was incorporated in 1929. There were given an official charter from Congress in 1984, and continue to serve the country by raising money for veterans and their family members in times to this day.

By Lauren Finnegan, APG News

Source(s): <http://www.mybluestarflag.com/about-2/>;  
<http://goldstarmoms.com/>

# Oktoberfest provides family-fun activities

Continued from Page A1

the festival. Crawford was joined on stage by invited guests from the community including Maryland State Senator Robert G. Cassilly; and post leaders, including RDECOM Maj. Gen. Cedric T. Wins; CECOM Command Sgt. Maj. Matthew D. McCoy; APG Garrison Commander Col. James E. Davis; and Garrison Command Sgt. Maj. Toese Tia Jr.

Crawford remarked that the event was yet another opportunity for community partners to come together.

"This represents an appreciation of the community outside the gate that supports APG Soldiers, civilians and families," he said.

Attendees expressed appreciation for what's become a traditional fall celebration on Aberdeen Proving Ground.

Jackie Mazurick said she was "thrilled" after she and husband Jamie, an ACC-APG civilian, won \$100 playing bingo. She said she called out bingo at a senior center to earn community service hours when she was in high school.

"Winning is a lot better," she laughed. Jamie Mazurick added that they enjoyed the music, food and total atmosphere of the fest.

"We were here for the first one in 2012; that was the best one, but we enjoy any Oktoberfest," he said.

Inge Hobbs, of Bel Air, her son, Vance Hobbs of the Directorate of Public Works and friend Frank Darling stayed throughout the evening, from the keg tapping to closing.

"It's all been very good," she said, "The food was great and we enjoyed the beer and watching the band. I'm very impressed with everything."

On Saturday, MWR kicked off the day's events with a 5K Volksmarch.

More than 70 people ran or walked around the route that began at the athletic center.

Before the event, MWR Sports Program and Facility Manager Byron Reasin gave a safety briefing and asked participants to remember service members throughout the day's festivities.

"Without their dedication and sacrifice we would not be able to enjoy the privileges we enjoy as citizens of this great county," he said.

Several participants said they appreciated the balmy weather and the opportunity to exercise with family and friends. Freestate Challenge Academy cadets manned the water stations along the course.

Elmore Pearson, a contractor and a military retiree, enjoyed a leisurely walk with his wife, son and niece.

"We want to do more walking as a family, and this is a good start," he said.

Jackie Loggin, a military retiree spouse, ran a portion of the route with her grandchildren. Loggin said she



ATEC 1st Sgt. Gerald A. Rouse Jr. helps his mother, Sallie F. Rouse, visiting from South Carolina, through a game of bingo during the APG Oktoberfest at the APG North (Aberdeen) recreation center, Sept. 16. Photo by Yvonne Johnson, APG News

enjoyed observing the sights along the route, especially the C4ISR Center of Excellence campus.

"We have been here [in the area] since 1988, and I haven't been back there," she said.

After the Volksmarch, Reasin distributed Oktoberfest medallions to participants.

During the Car and Bike Show, guests browsed the vehicles on display and chatted with the owners, many who restored the cars themselves. The vehicles included muscle cars, classics, imports and motorcycles.

Kevin Aponte, a Harford County resident, said he liked the variety of vehicles especially muscle cars, like the 1966 Ford Mustang.

"I grew up as a muscle car fanatic," he said.

Freestate Challenge Academy cadet Joshua Turcios, called the car show "interesting."

"I love the older generation cars, they are very durable," he said. "The way they are made, is just fascinating to me."

Trophies were awarded for the best in show in each category.

The overall best in show award went to Louis Franck, from Reisterstown, who entered his 1968 Mercury Cougar. Franck said he found the car on Craig's List in 2008, and it took him two years to restore it.

"It feels great to be recognized, I appreciate that," he said.



Families and friends head out near Fanshaw Field on the German Volksmarch leading off the second day of APG Oktoberfest festivities, Sept. 17. Photo by Rachel Ponder, APG News

In addition to the Volksmarch and the Car and Bike Show, the day's festivities included: live music in the Festhalle by The Edelweiss Band; static displays, personnel and vehicles from the Directorate of Emergency Services; face painting and balloon animals by Child, Youth & School Services and Army Community Service staff; demonstrations from the CYSS SKIES Unlimited Taekwondo program; and several bounce houses, provided by MWR Outdoor Recreation.

The event concluded with a game of bingo in the Festhalle, with a \$500 jackpot.

As the Army continues to redirect

efforts toward its #1 priority, readiness, fiscal restraints have been felt in services offered in the past. Despite these challenges, said MWR Director Mike Lupacchino, APG MWR worked diligently to plan the annual Oktoberfest enjoyed by the Team APG community.

"While scaled to our budget constraints, we provided a variety of family-friendly and fun-filled activities for our Soldiers, civilians, families and the surrounding community," he said.

For more photos of the 2015 APG Oktoberfest, visit [www.flickr.com/usagap](http://www.flickr.com/usagap).



# Patriotism can include small acts of kindness, APG Soldiers tell Bel Air Elementary School children

Continued from Page A1

Cpts. Omayra Velez and Jeff Rudderforth, both from the 20th CBRNE, explained to the kids the term patriotism and the role a patriot plays in society. During their talk, they emphasized that a person does not need to be a Soldier to be a patriot.

Rudderforth said everyone is a patriot by just doing what they are supposed to and by being law abiding citizens. Velez took it a bit further and told the children that simple acts like tying someone's shoe laces can be a form a patriotism.

Soldiers from the 20th CBRNE Command participated in the Patriot Program as part of its community outreach program. Bel Air Elementary has several events scheduled throughout the school year as part of the program, which often sees participation from Team APG Soldiers.

"We look forward to embracing that role of patriot and demonstrating our worthiness to hold that title through learning about our country, engaging in community service, and being good citizens," Mack added.



Capt. Jeff Rudderforth answers questions from Bel Air Elementary School students during the school's kick-off Patriot Program event, Sept. 13. Rudderforth and Capt. Omayra Velez, both from the 20th CBRNE Command, at APG, talked to students about patriotism and what it means to be a patriot.

# MARK YOUR CALENDAR

**MORE ONLINE**

More events can be seen at [www.TeamAPG.com](http://www.TeamAPG.com)

## EVENTS & TOWN HALLS

### HISPANIC HERITAGE MONTH OBSERVANCE SEPTEMBER 22

APG South (Edgewood) recreation center. 10:30 a.m. to noon. For more information, contact Sgt. 1st Class April Marinakes at 443-567-1298.

## MEETINGS & CONFERENCES

### FIRE MARSHALL TRAINING SEPTEMBER 27

Bldg. E4810. 9 a.m. to noon. Hosted by the APG Directorate of Emergency Services Fire Protection & Prevention Division. Attendees will receive a certificate of completion at the end of the class. For more information, contact Inspector Loren Brown at 410-278-1128.

### SUICIDE PREVENTION MONTH: KEVIN HINES TRIUMPH OVER ADVERSITY WEBINAR SEPTEMBER 27 & 29

Tuesday, 3 p.m.; Thursday, noon. The APG Suicide Prevention Coordinator invites Team APG to participate in a webinar featuring the story of a suicide survivor who now serves as a national suicide prevention and mental health advocate. To participate, visit <http://go.kognito.com/e/62052/1-62052-2016-09-07-gz1k3y/h2xjgy/205660588>. For more information, contact Lamont Coger at [lamont.a.coger.civ@mail.mil](mailto:lamont.a.coger.civ@mail.mil).

### FIRE EXTINGUISHER TRAINING OCTOBER 13

Bldg. E4810. 10 a.m. to noon and 1 to 3 p.m. Hosted by the APG Directorate of Emergency Services Fire Protection & Prevention Division. For more information, contact Ernie Little at 410-306-0583 or [ernest.w.little.civ@mail.mil](mailto:ernest.w.little.civ@mail.mil).

## HEALTH & RESILIENCY

### CPR & AED TRAINING SEPTEMBER 22

Bldg. 3147, Room 205. 9 a.m. and 1 p.m. Open to all. For more information, contact Mike Slayman at 410-306-0566.

### C4ISR CPR & AED TRAINING SEPTEMBER 29

Bldg. 6001, 2nd Floor, Room 224. 11 a.m. to 1 p.m. Registration required. Open to C4ISR employees, military and contractors. For more information, or to register, contact Tiffany Grimes at 443-861-7901 or [tiffany.l.grimes.civ@mail.mil](mailto:tiffany.l.grimes.civ@mail.mil).

### MEDICAL TOWN HALL OCTOBER 4

Kirk U.S. Army Health Clinic, 11:30 a.m. to 1 p.m.

### BIKE RIDE FOR BREAST CANCER AWARENESS OCTOBER 5

Parking pad east of ATEC headquarters, Bldg. 2202. All are invited to participate. Special guests include: Medstar Cancer Center, Johns Hopkins Breast Center; Harford County Health Department. Riders must have reflective clothing or belt; helmet; and no earbuds. For more information, contact Gale Sauer at 443-861-9260.

### BREAST CANCER AWARENESS INFO SESSION OCTOBER 6

Bldg. 6000, 11:30 a.m. to 12:30 p.m. C4ISR Wellness Committee to host Breast Cancer Informational Session featuring Dr. Atsuko Okabe, MD, FACS, Medstar Franklin Square Breast Center at Bel Air, who will provide the latest updates in breast health to include screening, treatment, and breast cancer prevention. Open to all. For more information contact Tiffany Grimes at 443-861-7901 or [tiffany.l.grimes.civ@mail.mil](mailto:tiffany.l.grimes.civ@mail.mil).

### DOMESTIC VIOLENCE AWARENESS INFO SESSION & SELF DEFENSE CLASS OCTOBER 13

Bldg. 6000, 11:30 a.m. to 12:30 p.m. C4ISR Wellness Committee to host a Domestic Violence Awareness Informational Session/Self Defense Class. Class will discuss domestic violence and teach self-defense moves that will give participants the confidence, knowledge, and strength needed to feel empowered in any threatening situation. Open to all. For more information contact Tiffany Grimes at 443-861-7901 or [tiffany.l.grimes.civ@mail.mil](mailto:tiffany.l.grimes.civ@mail.mil).

### CPR & AED TRAINING OCTOBER 20

MFRI North East Regional Training Center (near Wise Road gate), Room 205. 9 a.m. and 1 p.m. Open to all. For more information, contact Mike Slayman at 410-306-0566.

## ANNOUNCEMENTS & MISCELLANEOUS

### LEADING IN THE ACQUISITION ENVIRONMENT COURSE

SEPTEMBER 27-30  
Bldg. 6175, Guardian Gateway, 8 a.m. to 5 p.m. Hosted by Defense Acquisition University. Course provides an overview of the competencies and skills needed to lead in an acquisition environment. Experiential activities include role playing, simulation, communication, and critical-thinking exercises; a leadership challenge; and completion of a 360 degree feedback instrument and executive coaching to develop action plans related to the feedback. Level III certification in at least one acquisition career field and at least three years of Level III experience are required prerequisites for the course. Upon completion, students will earn 31 Continuous Learning Points. For more information, visit <http://www.dau.mil/training/Pages/apply.aspx> or contact Ben Metcalfe at [benjamin.metcalfe@dau.mil](mailto:benjamin.metcalfe@dau.mil) or 410-272-9471.

### COMMISSARY HOURS CHANGE STARTING OCTOBER 2

The APG Commissary will alter its hours of operations on Sunday, opening an hour earlier at 10 a.m. starting Sunday, Oct. 2. For more information, call 410-278-3101.

### FORGING STAKEHOLDER RELATIONSHIPS COURSE OCTOBER 5-7

Bldg. 6175, Guardian Gateway, 8 a.m. to 5 p.m. Hosted by Defense Acquisition University. Action-based learning course introduces professionals to the methods and skills necessary to identify, assess, and promote the building of stakeholder relationships required for success in the acquisition environment. Level III certification in at least one acquisition career field is a required prerequisite for the course. Upon completion students will earn 25 Continuous Learning Points. Applications due by Sept. 30. For more information, visit <http://www.dau.mil/training/Pages/apply.aspx> or contact Ben Metcalfe at [benjamin.metcalfe@dau.mil](mailto:benjamin.metcalfe@dau.mil) or 410-272-9471.

### CHAPEL SERVICES UPDATE

Catholic Service --- The APG Chapel offers an array of Catholic Services and Religious and Faith Formation Programs open to all Soldiers, Families, DOD and contract workers residing on both APG and APG South and retirees residing in the surrounding area, including: RCIA, classes for Grades Pre-K - High School, an active Youth Group, Adult Faith Formation, Baptism and Marriage Prep classes. Schedules are available at the APG Chapel. For more information, contact Jeanne Colopietro at 443-243-2861 or [teamcolo@msn.com](mailto:teamcolo@msn.com)

Protestant Service --- The APG Chapel has many opportunities to get involved with Worship Services and Chapel Programs. Worship Services are every Sunday at 10:15 a.m. and noon at APG Main Post Chapel and 0915 at APG South Chapel. Kids Programs, Adult Sunday School, Choir Ministry, Youth Ministry, Women's Programs and Men's Ministry are all in full swing this fall. Schedules are available at the Main Post Chapel. For more information, contact Joyce Wood at 410-278-4333 or [joyce.l.wood.civ@mail.mil](mailto:joyce.l.wood.civ@mail.mil) or contact Chaplain Capt. Jonathan Ginder at 278-2504 or [jonathan.l.ginder@mail.mil](mailto:jonathan.l.ginder@mail.mil).

### APG SOUTH 2016 WATER MAIN FLUSHING

The APG South (Edgewood) 2016 water main flushing schedule is as follows: Through September: E3000-E4000 area; Oct. through Dec.: E5000 area; Nov. 10-12: APG South housing area, Austin Road. For more information, contact Robert Warlick at 410-436-2196 or [robert.w.warlick2.civ@mail.mil](mailto:robert.w.warlick2.civ@mail.mil).

### RETIRING SOON? UNCLE SAM WANTS TO THANK YOU!

Are you an APG Soldier or civilian nearing retirement from government service? Consider participating in the monthly Installation Retirement Ceremony. Hosted the fourth Thursday each month by the APG Garrison, the event includes awards and decorations provided to retirees and their spouses. Photo DVDs are provided to each retiree after the ceremony. All Soldiers and civilians are eligible to participate, regardless of unit or organization. For more information, contact Lisa M. Waldon at 410-278-4353 or email [lisa.m.waldon.civ@mail.mil](mailto:lisa.m.waldon.civ@mail.mil).

### FIREWOOD AVAILABLE FOR SALE

Firewood is available, on a first-come first-served basis, at a cost of \$20 per level standard 8-foot pick-up truck, \$15 per level standard 6-foot pick-up truck, and \$5 per car trunk load. For more information, contact Scott English at 410-436-9804 or Kathy Thisse at 410-436-8789.

# MORALE, WELFARE & RECREATION

## Upcoming Activities

For more upcoming events visit [www.apgmwr.com](http://www.apgmwr.com).



## SAVE THE DATE

### NEWCOMERS ORIENTATION OCTOBER 25

APG North (Aberdeen) recreation center, 1 to 3 p.m. Session will have special emphasis on volunteer opportunities at APG. Garrison briefing begins at 1:25. Information from installation and community resources will be available. For more information, contact Jennifer Eichner at 410-278-2500.

### HOLIDAY BAZAAR NOVEMBER 16

APG North (Aberdeen) recreation center, 10 a.m. to 2 p.m. Vendors to feature items including home décor, jewelry, artwork, gift items, baked goods and much more. Door prizes and giveaways. For more information, call 410-278-4011.

## LEISURE & RECREATION

### DISNEY ON ICE DISCOUNT TICKETS OCTOBER 28, 7:30 P.M.

OCTOBER 29, 11 A.M.; 2:30 P.M.; 6:30 P.M.

OCTOBER 30, NOON; 4 P.M.

Royal Farms Arena, Baltimore. Tickets are \$23 each, while supplies last. Visit MWR Leisure Travel Services to purchase tickets. For more information, call 410-278-4011.

### PENNSYLVANIA RENAISSANCE FAIRE TICKETS THRU OCTOBER 30

2775 Lebanon Road, Manheim, PA 17545. Tickets are \$25.25 each. For more information, call 410-278-4011/4907.

### CINDERELLA DISCOUNT TICKETS NOVEMBER 6

Hippodrome Theater, Baltimore, 6:30 p.m. Upper balcony seating, \$39 per ticket. Visit MWR Leisure Travel Services to purchase tickets. For more information, call 410-278-4011.

### BINGO MONDAY & WEDNESDAY

APG Bowling Center; early bird games at 6 p.m., session program at 7 p.m. Eight session games paying out \$50 each. Two nightly jackpots

paying out \$200 and \$500. For more information, call 410-278-4041.

## CHILD & YOUTH SERVICES

### SESAME STREET USO EXPERIENCE FOR MILITARY FAMILIES SEPTEMBER 30, 2 P.M. OCTOBER 1, 1 P.M.

APG North recreation center. Tickets available starting Sept. 7 at Bldg. 2503, APG South CDC, Bayside CDC, APG North CDC. Maximum of 8 tickets per family. Free admission for military families and their children. Open to all DOD ID card holder family members. For more information, call 410-278-4589.

### I'M ALONE PROGRAM STARTING OCTOBER 4

APG North (Aberdeen) youth center, 5:30 to 6:30 p.m. Three day workshop based on child's age. Classes for parents and youth. imAlone Program focuses on preparing youth to stay home alone, from recognizing an emergency and first aid to preparing snacks.

4th & 5th grade students: Oct. 4 (parents only); Oct. 11 (parents & youth); Oct. 18 (youth only).

6th to 12th grade students: Nov. 3 (parents only); Nov. 10 (parents & youth); Nov. 17 (youth only).

For more information, contact Jennifer Bustos at [jennifer.j.bustos.naf@mail.mil](mailto:jennifer.j.bustos.naf@mail.mil).

### FAMILY MOVIE NIGHT OCTOBER 7

APG North (Aberdeen) recreation center. 6 p.m. "The Angry Birds Movie." Free movie, giveaway and craft activity. Food and drinks for sale. For more information, call 410-278-4011.

### FAMILY MOVIE NIGHT OCTOBER 21

APG South (Edgewood) recreation center. 6 p.m. "DC SuperHero Girls." Free movie, giveaway, snacks, and craft activity. For more information, call 410-278-4011.

## SPORTS & RECREATION

### SENIOR SCRAMBLE SEPTEMBER 26

Exton Golf Course. 9 a.m. Includes 18-hole scramble, food and drinks. \$30 for members, \$35

for authorized MWR patrons, \$40 to guests. For more information, call 410-436-2213.

## ARMY COMMUNITY SERVICE

### SMART START YOUR SMALL BUSINESS SEPTEMBER 28

Bldg. 2503 11:30 a.m. to 1 p.m. Session explores how to start a business and qualities of a successful entrepreneur. Open to public. To register, contact Marilyn Howard at 410-278-9669.

## ANNOUNCEMENT

### APG NORTH REC CENTER – NEW HOURS STARTING OCTOBER 1

The APG North (Aberdeen) recreation center and its associated MWR services will have new hours starting Oct. 1. The recreation center will be open Monday through Friday, 8 a.m. to 6 p.m. The Leisure Travel Office will be open Monday through Friday, 9 a.m. to 6 p.m. The library will be open Monday through Friday, 11 a.m. to 6 p.m. and closed on holidays. For more information, call 410-278-4011.

inside

DEVELOPMENT

A materials engineer advances his knowledge working alongside German counterparts through the Engineer and Scientist Exchange Program.

Engineer | B2

ROBOTICS

Researchers are developing robots to act less like tools and more like teammates.

Advances | B3

NEXT-GEN

The hand grenade gets its first makeover in nearly 40 years by engineers at Picatinny Arsenal.

ARDEC | B5

newsbrief

ARMY IDEAS FOR INNOVATION

U.S. Army Office of Business Transformation

The pace of change in the geopolitical environment, coupled with significant fiscal constraints for the foreseeable future, demands that the rate of innovation is accelerated to ensure the Army's ability to win in a complex world.

The Army Ideas for Innovation, or AI2, is a venue for Army Soldiers and civilians to share innovative ideas and creative solutions that positively affect the Army through cost savings, increased productivity, and process improvement.

The Army's Office of Business Transformation designed, developed, and successfully piloted AI2, which resides on milSuite and will be open to all CAC holders during the first week of October 2016. AI2 provides a platform for unleashing the creativity of the force to bring ideas to valued outcomes. It has no centralized awards program, relying instead on commanders and civilian leaders at the local level to incentivize, reward and recognize successful innovation and entrepreneurship.

AI2 will offer all CAC holders the ability to submit innovative ideas for improving the Army and its operations. Once ideas are accepted, the program is structured to allow for collaboration and feedback on them.

For more information about AI2, visit <https://www.milsuite.mil/book/community/spaces/ai2> (CAC required).

online

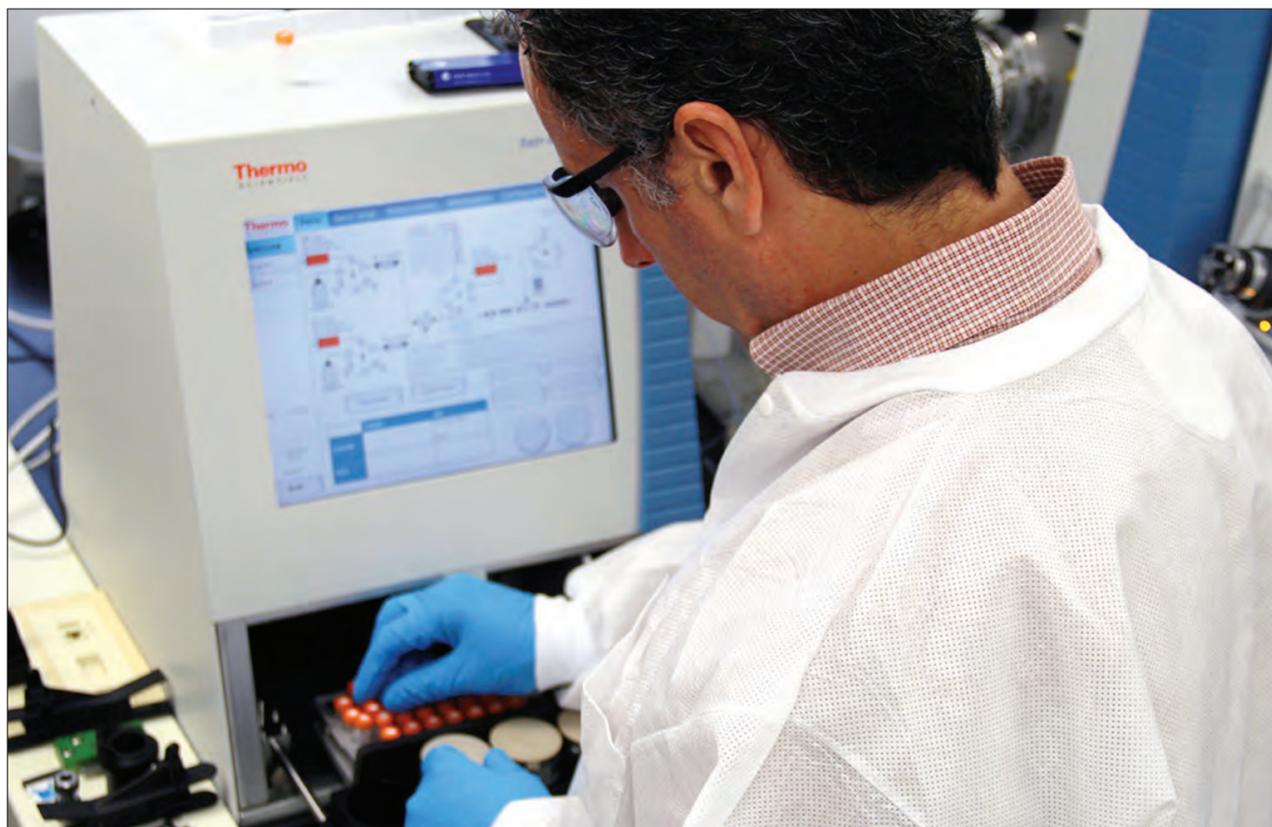
 [www.TeamAPG.com/APGNews](http://www.TeamAPG.com/APGNews)

 [facebook.com/APGMd](https://facebook.com/APGMd)

 [twitter.com/USAGAPG](https://twitter.com/USAGAPG)

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 ICE system  
<http://ice.disa.mil/>  
 Facebook, [http://on.fb.me/HzQlow](https://on.fb.me/HzQlow)



U.S. Army photo  
 Researchers at ECBC are working on a system that will take advantage of portable analytical equipment currently on the horizon to detect food and water contaminants using the Agents of Biological Origin Identifier (ABOid) system.

## ECBC works to rapidly identify biological threats in food, water

Edgewood Chemical Biological Center

Imagine several Soldiers suddenly become severely ill after eating breakfast. If there is a toxin, virus, or deadly bacteria in the food or water supply, then it needs to be identified fast! Researchers at ECBC are working on a system today that will take advantage of portable analytical equipment currently on the horizon to detect food and water contaminants in the

field and provide critical lifesaving information within minutes.

There are often two factors that need to be overcome when dealing with any contamination threat—the location of samples and the wait time for results. The Agents of Biological Origin Identifier, known as ABOid, system could possibly eliminate these two factors. It only takes minutes for the ABOid software to identify harmful agents, while current techniques may

take days. ABOid is an algorithm that was developed by the ECBC Detection Spectrometry Branch in 2012. ABOid is intended to be used in conjunction with a biological mass spectrometer, a tool used to identify biological fragments in samples. As biological mass spectrometers become more readily available and soon portable, con-

See ABOID, page B7

## AMSAA kicks off STEM mentor program

Volunteers pair with Aberdeen Middle School seventh and eighth grade students

Story and photo by **LAUREN FINNEGAN**

APG News

About 40 seventh and eighth grade students began a year-long mentoring program with employees from the U.S. Army Material Systems Analysis Activity, or AMSAA, during a gathering at Aberdeen Middle School Sept. 16.

Students interested in exploring STEM, the common term for science, technology, engineering, and mathematics, subjects and careers, apply to the program at the start of the school year, and once accepted, take time out of their regular class schedules to be introduced to higher level math and science concepts.

Previous participants in the program have gone on to be accepted into the highly competitive Science and Math Academy at Aberdeen High School and the Harford Tech-



Bridgette Chambers, an operations research analyst with the U.S. Army Materiel Systems Analysis Activity, or AMSAA, mentors students working on math puzzles at Aberdeen Middle School during the first meeting of a year-long STEM-focused mentoring program.

See AMSAA, page B7



## APG 'greens' civilian employees

CERDEC and ATEC civilian employees join Team APG Soldiers aboard a UH-60 Black Hawk Sept. 14 as part of APG's Greening Course meant to expose civilian employees to the realities of the U.S. Army Soldier.

About 75 APG employees experienced life as U.S. Soldier last week, navigating obstacle courses, rappelling down towers, shooting live rounds, eating MREs and much more. The APG Greening Course is for civilian employees to gain Army Knowledge and a greater appreciation for the Army's most valued resource, the Soldier.

Check back with the APG News "Inside the Innovation" next week for the full story about the APG Greening Program.

Photo by Dan Baldwin, CERDEC

# ARL hosts postdoc research day

U.S. Army Research Laboratory

Postdoctoral fellows from across the U.S. Army Research Laboratory gathered to answer questions about their current research and seek collaborative partnerships during the laboratory's inaugural Postdoctoral Research Day event Sept. 13, at the ARL Conference Center at APG.

Interested people from the science and technology community viewed poster presentations and learned about the important work postdocs are doing.

During the informal session, visitors spoke with postdocs, viewed presentations and asked questions.

About 150 postdoctoral researchers carry out important science and technology investigations across ARL. A postdoc is someone who recently completed their doctoral studies and work under the mentorship of a senior researcher before setting out on their own.

"There's a lot of diverse work going on," said Dr. Theresah Zu, co-chair of the ARL Postdoctoral Association. "It's very difficult to foresee potential collaborative efforts with the different labs. You don't really get to have group meetings or presentations."

Zu said 18 ARL postdocs gave poster presentations.

"For a first time event and considering the time constraints, I believe it was a good first start," she said.

The laboratory planned the event to coincide with the National Postdoc Appreciation Week, Sept. 19-23. Since 2009, the National Postdoctoral Association has sponsored the week to recognize the "significant contributions that postdoctoral scholars make to U.S. research and discovery."

"I think for a first time event, we



Postdoctoral fellow Dr. Theresah Zu (left), explains her research to Dr. Sarah Stellwagen during the Sept. 13 research day event. Zu is co-chair of the U.S. Army Research Laboratory Postdoctoral Association.

Photo by TJae Ellis, ARL

had a good turnout," said Dr. Meagan Small, co-chair of the ARL Postdoctoral Association. "During such a busy time of the year, it is difficult for people to take time away from their desks, so we appreciate those that were able

to stop by."

Small said she felt there was a good representation of post-docs across nearly all of the directorates of the lab.

"As far as lessons learned, next time we will hold the event in a location that

is more central to everyone," she said.

"This makes it more convenient for people to attend when they have time throughout the day. Additionally, we'll be sure to have food and drinks so our presenters aren't famished."

# Engineer gains insight from assignment in Germany

By DAN LAFONTAINE  
RDECOM

Protecting Soldiers and advancing military lethality is based on the foundations of materials science.

A U.S. Army engineer returned recently from an exchange assignment in which he advanced this critical research area by working alongside his German peers.

"It was an easy decision to take that leap and explore the opportunity. This would be an excellent opportunity for me to make those connections in an international setting and thereby broaden my knowledge of how we do science, broaden connections and networks between our lab here in the U.S. and that particular lab in Germany," said Dr. Vince Hammond, a materials engineer with the U.S. Army Research Laboratory.

Hammond, who holds a doctorate in materials science from the University of Virginia, participated in the Engineer and Scientist Exchange Program, which allows American military R&D experts to partner with an ally for a year, with the possibility of an extension. He worked at the Bundeswehr Research Institute for Fuels, Materials and Lubricants in Erding, Germany, from July 2014 to July 2016.

Before he left for his German assignment, Hammond was leading an ARL program to develop ultra-high strength magnesium alloys, which are of interest to the Army because they are lightweight.

"They offer the potential to take weight out of a system. Thereby you could increase the cargo capacity or fuel efficiency of a vehicle, or reduce the weight a Soldier has to carry on their body," he said. "Ultimately, the material would be integrated into a vehicle platform or personnel protection. That's where our efforts in basic research come to fruition."

Hammond planned to continue in this research area while in Germany; however, his focus quickly changed.

"When I arrived at the site in Germany, they had just gotten in a new machine known as a selective laser melting machine, which is part of the additive manufacturing world," he said. "The new research or production approach allows you to produce a 3-D component one layer at a time."

"I helped them stand up their machine, break it in, learn the ropes. When I came



Dr. Vince Hammond (right), a materials engineer with the U.S. Army Research Laboratory, and Ryan Oshinsky, an intern who is majoring in computer engineering at Case Western University, examine a part produced by additive manufacturing at ARL's Micro Compositronics and Rapid Operations Lab at APG.

Photos by Conrad Johnson, RDECOM

back [to the United States], it turns out the Army Research Lab is very much seeking to establish a consortium, or a center, of agile manufacturing that includes additive manufacturing as a key component. It is my hope and wish to take what I've learned in Germany through my assignment and transition it back here to make a contribution."

Additive manufacturing is a rapidly expanding R&D component in military and civilian sectors. Hammond, along with his colleagues in ARL's Lightweight/Specialty Metals Branch, are aiming to capitalize on these new connections with German researchers to expand Soldier performance.

"The people I worked with in Germany are some of the key decision mak-

ers for how the German military will be doing additive manufacturing. Through that prism of the institute, we can interact with some of their military researchers, not just in additive, but through other connections there into corrosion science, coating science, polymer composites -- the whole range of materials of interest to the Army.

"Furthermore, we now can get some insight into German companies and try to identify players in that particular area that may have a material of interest to explore. Those are exciting possibilities that make the exchange program worthwhile. It's a continuing benefit even after you return to the U.S."

To watch the video on YouTube, go to: <https://www.youtube.com/watch?v=hekTWPLcFKk>

[watch?v=hekTWPLcFKk](https://www.youtube.com/watch?v=hekTWPLcFKk)

## Engineer and Scientist Exchange Program

Mid-career level Army engineers and scientists in Career Program 16 can apply for an ESEP assignment. Applicants may arrange for a position from one of 16 countries, including the United Kingdom, France, Germany, Japan, South Korea, Australia, Canada, Singapore and Chile.

Participants should be in General Schedule pay grades 12 through 14 (or acquisition demo equivalent) at the time of deployment, hold a minimum of a bachelor's degree and have at least four years of technical experience in industry or military/government.

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# Advances in robotics could mean robot teammates for Soldiers

By **DAVID VERGUN**  
Army News Service

Army researchers are developing new advances to enable autonomous robots to operate more like teammates and less like tools.

Key to reaching this goal of achieving an effective robot-Soldier team will be enabling the robot to better understand the Soldier's or the commander's intent, said Joseph Conroy, an electronics engineer with the Electronics for Sense and Control team at the Army Research Laboratory.

The current generation of unmanned aerial and ground vehicles employed by the Army require a human operator, but the job of interpreting the intelligence, surveillance and reconnaissance data is labor intensive, Conroy said, and that can result in a much longer than real-time analysis.

Current generations of vehicles also rely excessively on GPS connectivity for positioning, he said. Similarly, information acquisition, particularly video, relies on high bandwidth wireless communications.

## MUM-T exercise

In late 2014, Army Research Laboratory personnel brought aerial robots to Fort Benning, Georgia to test with the infantry in a Manned/Unmanned Teaming (MUM-T) exercise sponsored by the Army Training and Doctrine Command. The robots were representative of current commercially-available capabilities and emerging capabilities developed through academic research.

The purpose of the exercise, Conroy said, was to determine how Soldiers could make use of autonomous systems in an operational setting. It confirmed that autonomous systems can be a battlefield asset, particularly maneuvering ahead of the Soldier, he said.

The robot could help a Soldier by identifying disturbed ground, which is a sign of a buried improvised explosive device. It could also examine the interior of a building and look around a corner or over a berm.

There is a sweet spot of autonomy, Conroy noted, where the robot is advanced enough not to be a burden for a Soldier, but not so advanced that it exhibits what is generally thought of as artificial intelligence.

"We want to push the level of autonomy up just enough so that there's a specific suite of behaviors the robot can execute very efficiently and reliably based on the commander's intent, with as little guidance as possible," he said.

## Future generation

Army researchers envision a greater degree of on-board perception and processing to enable a wider variety of mission scenarios, enhanced robustness, and real-time intelligence, Conroy said.

Furthermore, a greater degree of intelligence could allow vehicles to work with the Soldier rather than be operated by the Soldier. However, he cautioned



Photo by Kimberly Bratic, RDECOM

A Soldier of the 25th Infantry Division remote controls a Kobra 710 during the Pacific Manned Unmanned - Initiative (PACMAN-I) at Marine Corps Training Area - Bellows, Hawaii, July 22, 2016. Manned-Unmanned Teaming is one of many new concepts that has been identified as part of the Army Warfighter Assessment 2017 (AWA 17). AWA is the U.S. Army Training and Doctrine Command's premier event to evaluate concepts and capabilities that address the Army's warfighting challenges and shape the future Army's force.

that care must be taken that the vehicle performs as the Soldier or commander expects. An autonomous system must be able to infer its operator's intent and desires for its behavior.

Enhanced localization capabilities in GPS-denied environments or during periods without constant communication with a base station could allow for environmental awareness and intelligence gathering even during periods of radio frequency outages, he added.

Being able to perform intelligence, surveillance, and reconnaissance onboard the platform when communications or GPS goes down would be a huge advantage, Conroy said. The mission could still be completed and once communications are restored, the data could be dumped.

Writing the algorithms for such an intelligent military vehicle is even more challenging than designing a driverless car, according to Conroy, because military vehicles must be able to travel off-road in fog or brownout conditions with adversarial forces nearby and possible denial of wireless communications.

Once autonomous systems are capable of understanding their environment, rather than just relaying raw sensor information, typically in the form of video, to an operator, a wider range of mission support scenarios will be possible, Conroy predicted.

The autonomous systems would process the information about its environment onboard, using analysis and perception algorithms, before sending or saving the data, he said. The data would be greatly reduced in size from the original, thus freeing up bandwidth for other operations.

human capability back."

In other words, the robotic teammate would be capable not just of speech recognition, but also of understanding a Soldier's capability level and factoring that into its response to the current situation and its mission.

Sensors on the Soldiers like "next generation-Fitbits" might provide the robot with some of the required information, he added, but to be effective on the battlefield, whatever solution is employed for a Soldier-robot team must be scalable to many teams of Soldier-robot teams.

Such a solution must also be lightweight and small in size, given all other required items Soldiers must carry. Conroy admitted that "we've just scratched the surface," and it will take years, if not decades, for the technology to mature.

Key research initiatives to enable useful systems include the development of the following:

- Algorithms to enable obstacle avoidance for near-ground point-to-point navigation.
- Geolocation sensing and inference that can provide a position solution without GPS for up to days at a time.
- Target recognition and tracking algorithms that can reliably extract signals from data corrupted by noise.
- -Enhanced methods of enabling on-board processing of data, including leveraging commercial graphics processing units and development of application specific integrated circuits.
- Speech recognition and physiological instrumentation that works in a real-world, tactical environment.

Conroy is part of a much larger multidisciplinary group of scientists and engineers interested in hitting the right balance of autonomy in robotics.

The exercise also helped identify current technology gaps and what capabilities and research questions it would be most useful to focus on in near-term development.

## Focusing on the Soldier

Eventually, the Army researchers' efforts to enable efficient human-robot teaming may involve actually instrumenting the Soldiers themselves, said William Nothwang, team leader for the Electronics for Sensing Control team.

Nothwang said the lab is moving towards an effort called "Continuous, Multifaceted Soldier Characterization for Adaptive Technologies," which will focus on methods to assess and predict moment-to-moment changes in individual Soldier states under real-world conditions such as fatigue or stress.

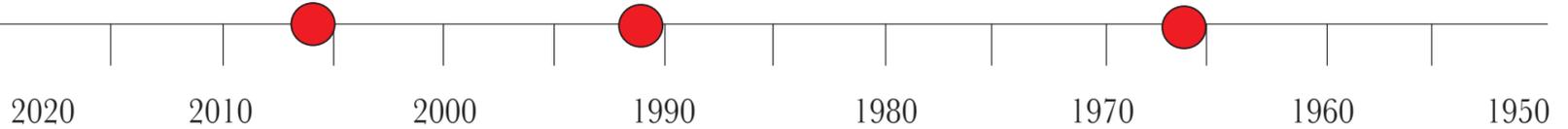
"We design tools to the lowest capability to enable the maximum usage, meaning we leave a lot of capability, human capability, on the table," he said. "If we can understand a Soldier's current capability, and adapt the tool to that capability level, we can get a lot of that

# THIS WEEK IN APG HISTORY



Take a look back in time as the APG News explores what made the headlines around APG during this week 10, 25 and 50 years ago. This week's APG News masthead is from 1978.

By **YVONNE JOHNSON**, APG News



## 10 Years Ago

Sept. 28, 2006

Members of local military veteran motorcycle clubs ride onto the installation to lunch with the Soldiers of the 61st Ordnance Brigade.



## 25 Years Ago

Sept. 18, 1991

From left, Majs. Sven J. Ljamo and Richard S. Broadhurst and Capt. David K. Gustavision, new occupational medicine residents with the U.S. Army Environmental Hygiene Agency, examine info packets after a command briefing.



## 50 Years Ago

Sept. 12, 1966

The new U.S. Army M561 "Gama Goat" vehicle is set to undergo final procurement testing by the U.S. Army Test and Evaluation Command, or TECOM.

# Astronaut and SECARMY talk life on International Space Station

By **DAVID VERGUN**  
Army News Service

Retired Army colonel and astronaut Timothy Kopra discussed his experiences on the International Space Station on Tuesday, Sept. 13, during a Facebook Live hosted by ABC News.

Joining him for the broadcast from the "Moving Beyond Earth" exhibit at the Smithsonian National Air and Space Museum, was Secretary of the Army Eric Fanning, who served as moderator during the discussion, taking questions from an ABC News studio audience and Facebook.

Kopra returned from his second mission on the International Space Station earlier this year, on June 18.

### Space food vs. MREs

One of the most challenging issues with space travel is how to get sufficient amounts of food and water into space for the astronauts to consume during often lengthy journeys. Unsurprisingly, the topic generated a number of questions from the live stream audience.

Processed and dehydrated food in space is well balanced and healthy, Kopra said, but it "clearly would be healthier if we could grow our own."

During his own space missions, Kopra said, they opted to grow inedible flowers, but on previous space missions that he had not taken part in, astronauts had grown lettuce in the space station. He told Fanning the astronauts reported that lettuce grown in space tasted pretty good.

Asked how astronaut food compared to Army food, specifically "meals, ready-to-eat," or MREs, Kopra said both are OK. He had consumed MREs for five months during Operation Desert Storm. An MRE, he said, wasn't "necessarily your favorite, but it was good."

The differences between dining on Earth and in space go beyond the food itself, Kopra said. In space, astronauts must be very careful when eating dinner in zero gravity, because things can float off and "make a big mess" in the space station. One of the joys of coming back to Earth, he said, was not having to worry about that.

Everything needed for life on the space station, including water, is brought from Earth, he said. With no way to procure more water, the space station's atmosphere is recycled to produce water. Even urine and sweat are recycled and purified for drinking.



NASA photo  
Commander Tim Kopra, from Austin, Texas, poses inside the cupola as the station orbits over the Earth below, May 2016.

### Keeping in touch

Kopra made it clear that his family was the thing he missed most, emphasizing that NASA did a remarkable job of connecting him with his loved ones.

"NASA does a great job of keeping family in touch," he said. "They have an Internet protocol telephone so you can call your family, and there's a video teleconferences once a week with the family."

Asked about what his family thinks of him being in space, he replied, "They think it's cool but they're nonplused. It's business as usual for them," since he has been in the astronaut program since 2000.

He added that he has two children; a son who is a cadet at the U.S. Military Academy, West Point, New York, and daughter who is attending Princeton University.

### Missing gravity

Asked what he missed about Earth during his time in space, Kopra made it clear that he missed his family the most, but gravity was a close second. Working in zero gravity is a real chal-

lenge, he said, because everything must be done so meticulously.

"Not having to worry about that level of detail [now] is really a blessing," he said. "So I'm glad to be back."

Returning to Earth gravity after both missions was also hard, he admitted.

"Your body adapts to space," he said. "It loves zero gravity and doesn't like 1-G when you get back, so the first day is very rough. After two weeks, strength and balance return, and recovery comes quickly."

Kopra said he also missed the fresh smells of Earth.

"When we landed in Kazakhstan and opened the hatch, the smell of all that grass was almost overpowering," he said.

### Interconnected

"How are sunsets different in space?" asked Fanning.

The views from space can leave you with a sense of how interconnected everything is, Kopra said, and the views of phenomena like the rising and setting sun and the coral reefs in the Bahamas can be awe-inspiring.

"You see ships going through the Suez and Panama Canals, you see the contrails of planes, you see the roads of different cities connecting each other," he said.

"Even more dramatic is seeing how black it is beyond our planet, so it really makes you recognize that we're alone," he said.

### On becoming an astronaut

It takes a lot of hard work to join the space program, but joining the Army doesn't hurt. So far, around 20 or so Soldiers have become astronauts. Kopra recommended that young people who are interested in becoming astronauts focus on excelling in subjects like math, science and engineering.

When Kopra returned to Earth from his last mission, his replacement to command the International Space Station was another Soldier, Jeffrey Williams, who happened to set a U.S. record for the most cumulative days in space, 534. He returned just last week, beating Astronaut Scott Kelly's record.

# ARDEC develops new hand grenade

By **ERIC KOWAL**  
Picatinny Arsenal

Engineers at Picatinny Arsenal are working on the first new lethal hand grenade in more than 40 years, which is designed to give greater flexibility to the warfighter.

The multi-purpose hand grenade design will provide both fragmentation and blast overpressure more effectively and safely than its legacy counterparts. Once fielded, Soldiers will be able to select and use a hand grenade with different effects simply by flipping a switch.

Over the past five years, Picatinny engineers have been collaborating with Infantry School representatives, hand grenade cadre, as well as active duty Soldiers and Marines, to determine warfighter needs regarding hand grenades.

Our warfighter lost the capability of using an alternate lethal hand grenade when the MK3A2 concussion grenade was taken out of service in 1975 due to an asbestos hazard, leaving the M67 fragmentation grenade.

The grenade development at Picatinny is being performed by engineers with the Army Armament Research, Development and Engineering Center, or ARDEC.

Science and technology funding has allowed ARDEC to spearhead the design effort to develop the Enhanced Tactical Multi-Purpose (ET-MP) hand grenade, the Army's next generation lethal hand grenade. The grenade will be designed to meet performance requirements required for close combat engagements in which the effects must be lethal.

ARDEC is working in cooperation with the Maneuver Center of Excellence at Fort Benning, and the Program Manager for Close Combat Systems, to insert critical technologies with Soldier-centric designs to improve safety and ease of use.

According to Jessica Perciballi, ARDEC project officer for ET-MP, Army, Grenades & Demolitions Division,



Photo by Herbert Wortmann, ARDEC

**A Soldier at Fort Benning, Georgia, throws a prototype, inert grenade from the kneeling position.**

sion, ET-MP represents the first hand grenade that can be tailored to the mission. Soldiers will not need to carry as many types of hand grenades.

“They are currently carrying one M67 grenade that provides lethal fragmentation effects. With the new multi-purpose grenade, they can carry one ET-MP grenade and have the ability to choose either fragmentation or concussive effects desired for the situation,” Perciballi said.

Another feature is that the grenades are designed for ambidextrous use, meaning that they can be thrown with either hand. Current grenades require a different arming procedure for left-hand-

ed users.

“Not only will ET-MP provide additional capabilities and lethality to the warfighter, it will also be the first Army Fuze Safety Review Board and Insensitive Munition-qualified lethal grenade in the Army’s portfolio,” Perciballi added.

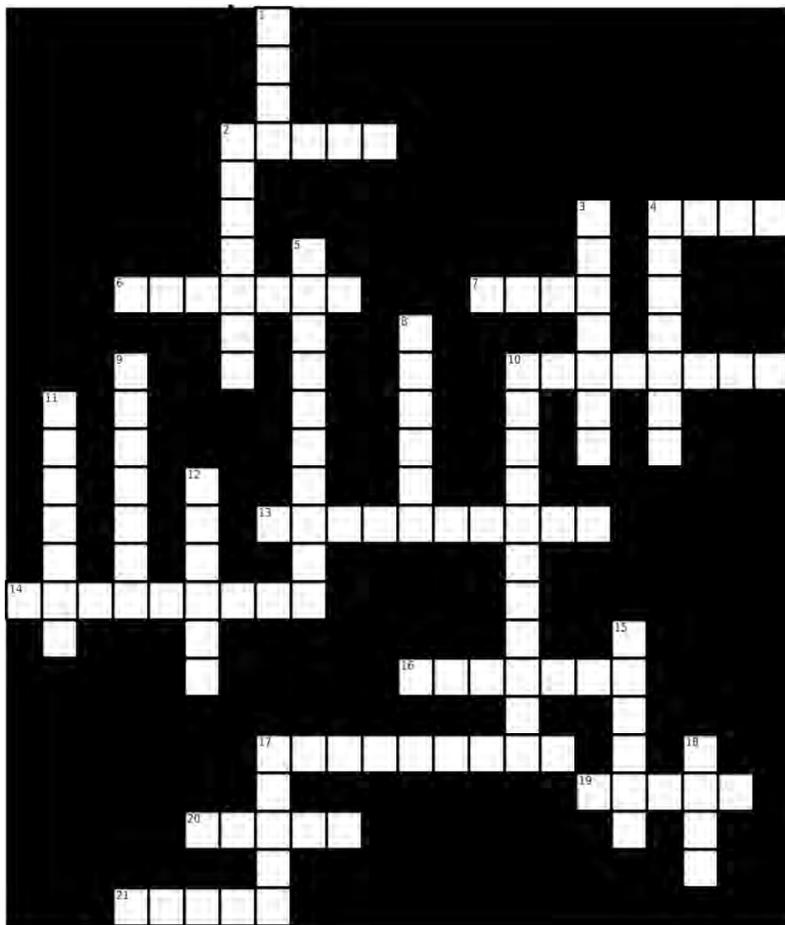
According to Matthew Hall, Grenades Tech Base Development Lead, the request for a multi-purpose grenade came from the warfighter in 2010, and research began almost immediately. The science and technology funding to move forward with a project came in fiscal year 2013.

“We received direct input from the Army and Marine Corps early on, which

was critical in ensuring the new arming and fuzing design was user friendly,” Hall said.

“With these upgrades in the ET-MP, not only is the fuze timing completely electronic, but the detonation train is also out-of-line,” Hall added. “Detonation time can now be narrowed down into milliseconds, and until armed, the hand grenade will not be able to detonate.”

According to Hall, the current plan for ET-MP is to transition the new grenades to Project Manager Close Combat Systems in Fiscal Year 2020. That organization is also located at Picatinny Arsenal.



## The APG Crossword

### Pollution Prevention Week

This year the United States celebrates Pollution Prevention Week Sept. 19-25. Check out these facts and tips about pollution prevention and ways to reduce your carbon footprint.

By Amanda Rominiack, APG News

#### Across

2. Mr. \_\_\_\_\_ Wheel, believed to be the first of its kind in the world, has removed 483 tons of debris from the Baltimore Inner Harbor since May 2014.

4. Approximately 1,850 gallons of water are needed to produce a single pound of \_\_\_\_\_, compared to just 39 gallons needed to produce a pound of veggies.

6. This ocean is unfortunately home to a large floating patch of microplastics roughly the size of the state of Texas.

7. Consider signing up for a \_\_\_\_\_ share; this community-supported agriculture not only supports a local business and gets you fresh produce – it also reduces the amount of transportation tied to food distribution.

10. \_\_\_\_\_ Monday not only aims to reduce the amount of saturated fat in our diets, but it also tries to reduce the carbon footprint of the meat and poultry industry.

13. Rainwater \_\_\_\_\_ is the act of collecting rain runoff from roofs and other struc-

tures with the intention of using it for gardening and other residential uses.

14. Reduce the amount of paper you use by signing up for \_\_\_\_\_ billing from your bank and credit companies.

16. Instead of using the garbage disposal, consider a \_\_\_\_\_ pile to dispose of organic materials.

17. This act, established by congress in 1970, is considered the first and most influential environmental law in the United States.

19. Fresh \_\_\_\_\_ is one of the world’s most precious resources. Reduce your consumption by turning off the faucet while you brush your teeth.

20. There are “good” and “bad” versions of this; the good protects the earth from UV radiation, while the bad is the main component of urban city smog.

21. In 2015, a \_\_\_\_\_ teenager made headlines for inventing one of the most plausible ocean cleaning systems.

#### Down

1. Each year, enough plastic is thrown away to circle the globe \_\_\_\_\_ times.

2. Harford County offers \_\_\_\_\_ recycling for unwanted blankets, clothing, curtains, sheets, and towels.

3. This type of fluorescent bulb, known as CFL, can reduce up to 1,300 pounds of carbon dioxide pollution during its lifetime compared to traditional incandescent bulbs.

4. This type of water can cost more than 2,000 times that of traditional tap water, and at a heavy cost on the environment, too.

5. By 2017, tiny \_\_\_\_\_ often found in body scrubs, facial cleanser and toothpaste – which can’t be filtered out of the water supply -- will be banned by law in

the United States.

8. While re-use and recycle are important, \_\_\_\_\_ is the most vital aspect of pollution prevent.

9. This term refers to the Pinterest-trendy craze of repurposing old items into something completely different.

10. This river carries nitrogen, a byproduct of farming, into the Gulf of Mexico, resulting in a dead zone roughly the size of New Jersey.

11. Families produce 25% more trash during this season. Consider swapping wrapping paper with left-over fabric or newspaper and skip paper greeting cards.

12. Federal employees can receive a stipend of up to \$255 a month for utilizing mass or \_\_\_\_\_ transportation for their commute.

15. Single-\_\_\_\_\_ recycling means that all recyclable materials can be placed into the same container by the depositor.

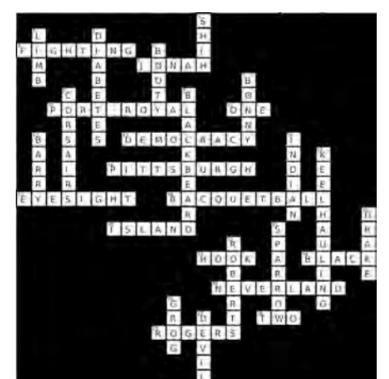
17. Take a page out of the “hipster’ handbook; opt for this type of reusable napkin or handkerchief rather than its disposable paper counterpart.

18. Drivers with a \_\_\_\_\_ foot might as well be burning money. Driving 10 mph above 60 is like adding nearly 50 cents to the price of a gallon of gas.

*Think you solved last week’s puzzle?*

Check out the solution below

Solution to the September 15th puzzle



# ABOid to also assist commercial food companies

Continued from Page B1

taminants will be detected in the field in virtually no time at all.

At ECBC, keeping warfighters and civilians safe from all chemical and biological threats is paramount, including threats that could be present in things that are consumed such as food or water. Recently, the Public Health Center partnered with ECBC's Detection Spectrometry Branch to complete studies that demonstrated how ABOid can identify salmonella and ricin in mashed potato samples with 100 percent accuracy. This study resulted in a new patent license agreement and cooperative research and development agreement with Biodetech, LLC, to further develop how ABOid can be used in commercial food detection.

"The goal is to make ABOid available to food companies for screening in order to prevent food poisoning," said Dr. Mary Wade, Detection Spectrometry Branch chief at ECBC. The ECBC and Biodetech partnership will explore biological detection in more complex foods such as meats and dairy products, and will likely lead to an improved

**A terrorist could pollute small or large drinking water supplies. ABOid could be used to quickly spot these potentially harmful agents and mitigate risks towards warfighters and civilians.**

**Dr. Mary Wade**

ECBC Detection Spectrometry Branch Chief

detection process of contaminants in the commercial food industry in the near future.

Now ECBC and PHC are pushing ABOid to a new realm of research with the Environmental BioSurveillance, or EBS, project, where the team is using ABOid to test water samples from around the world.

"A terrorist could pollute small or large drinking water supplies," said Wade. "ABOid could be used to quickly spot these potentially harmful agents and mitigate risks towards warfighters

and civilians."

Testing water presents new challenges when compared to testing other substances like mashed potatoes. The water samples in the EBS project have been collected from around the globe, and contain a huge variety of microbes, of which many will be unsequenced. However, ABOid will still classify these unknown microbes. Dr. Rabih Jabbour received an Outstanding Technical Achievement Award for biological detection using mass spectrometry-based proteomics in 2014

and continues to work on the ABOid projects.

The ABOid software takes the mass spectrometer data, called mass spectra signatures, and performs statistical analysis in order to provide an output of proteomics. The analysis indicates pathogens, toxicity, and organism strain levels. The ABOid database already scans for more than 2,800 bacteria, 3,600 viruses, 80 fungi and parasites, and all known toxins. If an un-sequenced microbe is detected, then ABOid will classify it and still provide valuable information.

While chemical mass spectrometers are often portable, there are currently no portable mass spectrometers for biological detection. The Defense Threat Reduction Agency (DTRA) is funding a project to field a portable biological mass spectrometer by 2018. A portable biological mass spectrometer partnered with ABOid could mean on-the-spot biological detection for food and environmental samples. This powerful combination of technologies would have life-saving impacts in civilian communities and on the battlefield.

# AMSAA volunteers mentor minds of tomorrow

Continued from Page B1

nical Institute, and many have fostered a passion for the field through this hands-on program.

Dolrica Wright, an eighth grader in her first year of the program, said that she found out about the program through her friends and decided to join because she has a deep interest in science.

"I'm planning on being a surgeon, so I'm pretty sure [science] has a lot to do with it," she said.

The kickoff event served as an ice-breaker for the students and mentors to get to know each other. The students

were challenged to solve complex math puzzles by approaching them from different angles.

After being divided into small groups, the students rotated through four stations, each with a different mentor, to attempt to solve the various math teasers.

Rachel Champion, an Operations Research Analyst at AMSAA, and lead mentor, said the activity was designed to show the students that math can be fun.

She added, "[Math] is not just a plug and chug, but involves thinking outside of the box, which is very useful in the Department of Defense and many other industries."

Besides the in-school activities, the students will get the opportunity to visit the Science and Math Academy, the Harford Community College engineering program, and conduct engineering experiments that pit them against the mentors, Champion said.

Recalling an activity last year in which the students won, Champion added, "I know we lost by a narrow margin."

Brandi McGough, a mentor and an AMSAA Operations Research Analyst, said the best part about the day was "seeing their expressions when they learn something new."

Mentor Bridgette Chambers chimed

in, "Their faces lit up and everything. They loved it."

Teams of AMSAA engineers and analysts have volunteered to partner with local schools to mentor the young minds of tomorrow for 17 years. The mission of the mentoring program is to encourage students to pursue college preparatory math and science classes in high school and to provide them with better opportunities to plan for STEM-related careers.

## WORD OF THE WEEK

### Refulgent

Pronounced: ri-FUHL-juh nt

Part of Speech: Adjective

#### Definition:

1. Shining brightly; radiant; gleaming.

#### Use:

- I stepped outside under a refulgent sky, and I saw a tiny yellow-brown bird.
- The young boy's refulgent blue eyes grew larger as he gazed at the candy counter.
- Crystal chandeliers and gilded walls made the opera house a refulgent setting for the ball.

By **YVONNE JOHNSON**, APG News  
Sources: [www.dictionary.com](http://www.dictionary.com); [www.oxforddictionaries.com](http://www.oxforddictionaries.com)

## ACRONYM OF THE WEEK

### NAC

#### National Agroforestry Center

The National Agroforestry Center, or NAC, a part of the U.S. Department of Agriculture, originated in the 1990 Farm Bill. It began as a Forest Service Research and State & Private Forestry effort and expanded into a partnership with the Natural Resources Conservation Service, also known as NRCS, in 1995. NAC accelerates the application of agroforestry through a national network of partners. Together, they conduct research, develop technologies and tools, coordinate demonstrations and training, and provide useful information to natural resource professionals. Agroforestry intentionally combines agriculture and forestry to create integrated and sustainable land-use systems.

NAC is administered by the Forest Service's, Washington, D.C. Office of Research and Development and the Department of Agriculture. NAC offices are located in Lincoln, Nebraska and Blacksburg, Virginia.

For more information, visit the NAC website at <http://nac.unl.edu>

By **YVONNE JOHNSON**, APG News  
Sources: <http://nac.unl.edu>; [www.wikipedia.org](http://www.wikipedia.org)



## DID YOU KNOW ?

### A Hispanic Civil War officer in the Union Army achieved unprecedented heights - sketching enemy positions from a hot air balloon.

Federico Fernández Cavada was born in Cienfuegos, Cuba in 1831 to Isidoro Fernandez Cavada and his wife, Emily Howard Gatier, an American citizen from Philadelphia. When her husband died in 1938, Gatier returned to Philadelphia with Federico and his two brothers.

Fernandez Cavada received his primary and secondary education at Philadelphia's Central High School. He later worked as a civil engineer and as a topographer in the Panama Canal.

When the Civil War broke out, he and his brother, Adolfo, joined the Union regiment of Philadelphia's 23rd Pennsylvania Infantry Regiment. Federico was transferred to the 114th Pennsylvania Infantry Regiment and assigned to the Army of the Potomac, which participated in the Second Battle of Bull Run, the Battle of Fredericksburg and the Battle of Gettysburg.

Because of his artistic talents, Fernandez Cavada was assigned to the Hot Air Balloon unit of the Union Army. In 1862, he spent a great deal of time drawing maps and sketches while observing enemy troops from the air. In April 1862, for example, Fernandez Cavada sketched enemy positions from Thaddeus Lowe's Constitution balloon during the Peninsula Campaign in Virginia.

He was promoted to colonel in August 1862. During the Battle of Gettysburg, while fighting the Mississippi troops known as Barksdale's Brigade at Peach Orchard, he was captured and sent to Libby Prison for Union officers in Richmond, Virginia. He was released as part of a prisoner of war exchange in 1864, and returned to his unit where he continued to serve until April, 1865.

After the war, Fernández Cavada was appointed United States consul

at Trinidad, Cuba. He eventually resigned the position, joined the Cuban insurrection against Spanish rule, known as Cuba's Ten Years' War, and was named General for the District of Trinidad, and Commander in Chief of the Cinco Villas.

In 1871 he planned an armed invasion with fellow rebels but was captured, tried by Cuban authorities and sentenced to death by firing squad. Despite attempts to gain his release by Gens. George Gordon Meade, Daniel Sickles and Ulysses S. Grant, Fernandez Cavada was executed in July 1871.

#### Legacy

Fernández Cavada published a book titled "Libby Life: Experiences of a Prisoner of War in Richmond, Virginia, 1863-64," recounting the cruel treatment which he and others received in the Confederate prison. The work included his drawings of his drawings of prison life.

On Feb. 24, 1929, a monument honoring those who participated in the Ten Years' War and who were executed by Spanish firing squads was erected in the town of Nuevitas located in the Province of Camagüey. Fernández Cavada was listed among the names.

By **YVONNE JOHNSON**, APG News  
Source(s): [www.wikipedia.org](http://www.wikipedia.org); [www.nps.org](http://www.nps.org)



# Legacy of Light: Boston Light marks 300th anniversary

By **WALTER HAM**  
U.S. Coast Guard Headquarters

When the Boston Lighthouse was first lit 300 years ago today, sailors called on New England ports in wooden ships, pirates roamed the Atlantic Coast and the 13 colonies were under the British crown.

The light, which still guides mariners around Boston Harbor's shoals, was the first of thousands of American Aids to Navigation (ATON) that have saved lives, protected property and enabled prosperity for the last three centuries.

Located on Little Brewster Island, Massachusetts, nine nautical miles from Boston, the lighthouse was first lit on Sept. 14, 1716, using tallow candles. Today, the Boston Light has two 2 million candlepower lights that can be seen from 27 nautical miles away.

Sally Snowman is the U.S. Coast Guard's only remaining assigned lighthouse keeper. In 2003, she became the 70th Boston Lighthouse keeper and the first female to hold the position.

Snowman said the city and the region have grown because of the light.

"Massachusetts prospered with Boston Harbor emerging as an international port in the 19th century," said Snowman. "For this to have occurred, the entrance to Boston Harbor needed to be properly marked to reduce the significant loss of life and cargo due to shipwrecks occurring on the ominous ledges."

"Boston Light was built as the first major Aid to Navigation in Colonial America to the mark the entrance and continues to provide this service today," said the Weymouth, Massachusetts, native who earned doctorates in Education and Metaphysical Science.

Snowman said the Boston Harbor Islands National and State Park offers weekend tours of the Boston Lighthouse in the summer.

During tours, Snowman dresses in formal clothes from 1783, the year that the Boston Lighthouse was rebuilt. British forces destroyed original structure



Courtesy photo

**After 300 years of service, the Boston Lighthouse continues to guide ships into Boston Harbor. America's oldest Aid to Navigation was first lit on Sept. 14, 1716.**

during the Revolutionary War.

As a part of her duties, Snowman manages more than 70 volunteers and maintains the lighthouse, keeper's cottage and other buildings on the three-acre island.

"My favorite thing about working as the lighthouse keeper is the diversity of the job, which is also its uniqueness, requiring the ability to multitask and changing the scheduled agenda as quickly as the New England weather," said Snowman.

Designated as a National Historic Landmark in 1964, the Boston Light is one of nine lighthouses honored in the Coast Guard Headquarters in Washington, D.C. Lighthouses from the Coast Guard's nine districts have elevators named after them in the headquarters.

The storied landmark is located in the 1st Coast Guard District, the Boston-based command that covers northeast waterways from New Jersey to Maine.

On August 7, 1789, with the ninth

law it passed, Congress created the U.S. Lighthouse Establishment to provide "support, maintenance and repairs of all lighthouses, beacons, (and) buoys." The service would later be called the U.S. Lighthouse Service or Bureau of Lighthouses.

After 150 years of keeping the lights shining, the Lighthouse Service was incorporated into the U.S. Coast Guard in 1939. August 7 is designated as National Lighthouse Day in the United States.

Managed by the U.S. Coast Guard Office of Navigation Systems and maintained by Coast Guard cutters and ATON teams around the nation, Aids to Navigation enable navigators to determine their position, chart a safe course and steer clear of hazards.

From the lone Boston Light, the Coast Guard Aids to Navigation system has grown to include more than 48,000 Federal buoys, beacons, and electronic aids that mark the more than 25,000 miles of

waterways that make up the U.S. Marine Transportation System or MTS.

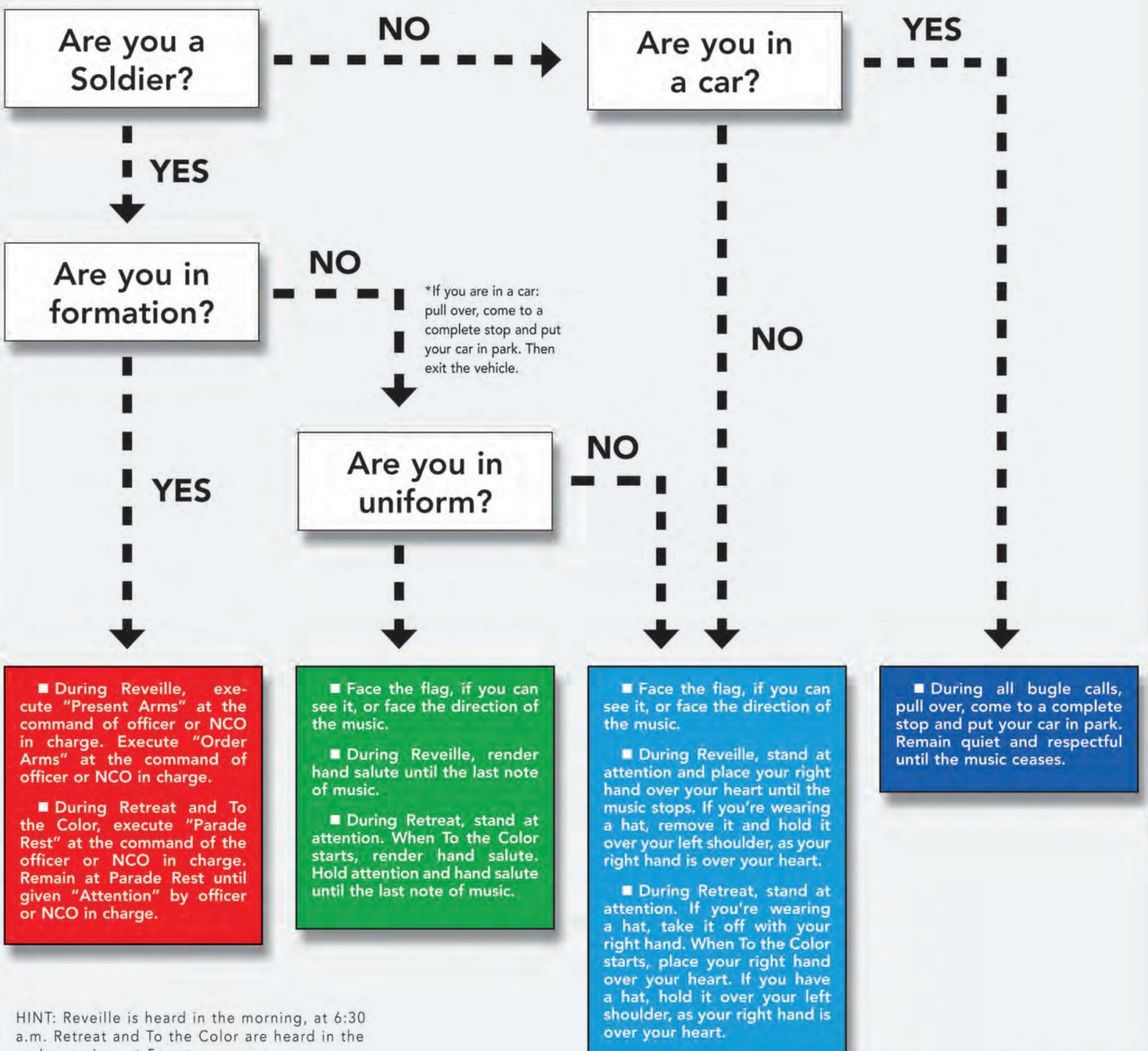
In addition to protecting mariners and the waters they traverse, the U.S. Coast Guard also keeps America's economy on course.

With the majority of trade flowing into the U.S. from the sea, the Coast Guard ATON system safeguards the marine cargo transportation that generated \$4.6 trillion of economic activity and accounted for more than a quarter of the U.S. Gross Domestic Product in 2015.

"More than 73 million Americans are involved in maritime commerce, commercial fishing and recreational boating on our waterways, and we help them to get home safely," said Capt. Scott J. Smith, the chief of the U.S. Coast Guard Office of Navigation Systems.

"Our vast Aids to Navigation system started with the Boston Lighthouse and we celebrate its enduring contribution to our nation, our economy and our maritime heritage," said Smith.

## You hear the bugle call, now what?



HINT: Reveille is heard in the morning, at 6:30 a.m. Retreat and To the Color are heard in the early evening, at 5 p.m.