



APG NEWS

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

www.TeamAPG.com

THURSDAY, JULY 14, 2016

Vol. 60, No. 28

inside

COMMUNITY

APG joins local community leaders in Cecil County to discuss STEM, partnership opportunities.

APG | A3

YOUTH

A military child installs a Little Free Library in Havre de Grace.

Military | A4

TECHNOLOGY

ECBC develops spray to immediately decontaminate surfaces in the field.

Chemical | B1

newsbrief

GARRISON, INSTALLATION TOWN HALLS SET FOR JULY 21

Social on APG South to follow

The APG Garrison will host its quarterly town hall the morning of July 21, followed by an installation-wide town hall later in the afternoon.

The garrison town hall will be held at the APG North (Aberdeen) recreation center at 10 a.m. Questions for the garrison commander can be submitted in advance to Lisa McClure at lisa.a.mcclure9.civ@mail.mil.

The installation town hall will be held at the APG South (Edgewood) recreation center at 4 p.m. Questions for the senior installation commander can be submitted in advance to Jill Brodbeck at jill.m.brodbeck.civ@mail.mil.

Immediately following the town hall, attendees are invited to the Installation Social also at the APG South recreation center. Hosted by APG Morale, Welfare and Recreation, the events feature free hors d'oeuvres and a cash bar and are open to the entire Team APG community.

online



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ICE system
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Mosquito surveillance



KUSAHC monitors mosquitos for Zika and other diseases

Story and photos by **RACHEL PONDER**
APG News

The Kirk U.S. Army Health Clinic, or KUSAHC, Preventive Medicine, Environmental Health team is conducting a mosquito surveillance program to monitor potential mosquito-borne diseases in the community, such as the Zika virus.

Capt. Maritzabel Gonzalez, KUSAHC Deputy Chief of Preventive Medicine, said effective surveillance relies on identifying larval breeding sites, and catching, identifying and testing adult mosquitoes for pathogens.

Mosquitoes are vectors; they can carry pathogens from person to person and place to place. This means a mosquito can bite a person infected with the Zika virus and transmit that virus to another person. Only female adult mosquitoes can carry diseases like the Zika virus.

Gonzalez said summer is the peak time for mosquito activity, because they thrive in warm, wet environments. Mosquito activity is noticeable when nighttime average temperatures consistently rise above 50 degrees.

The KUSAHC mosquito surveillance program is part of the Department of Defense Integrated Pest Management program and a component of the strategy for control of Zika virus transmitting mosquitoes on mili-

See MOSQUITO, page A6

Pfc. James Taylor, with the Kirk U.S. Army Health Clinic Preventive Medicine environmental health team, sets up a trap to collect mosquitoes for disease surveillance.

FCA welcomes new candidates

Story and photos by **RACHEL PONDER**
APG News

On July 10, approximately 150 at-risk Maryland teenagers seeking a second chance at an education enrolled in the Maryland National Guard Freestate Challenge Academy during an in-processing for Class #47 at the APG North (Aberdeen) recreation center.

For the next five months the teens, ages 16-18, will voluntarily live in the academy's rigorous, structured, military-style residential program on APG South (Edgewood) where they will complete academic coursework, learn critical life skills, and prepare for the General Educational Development

See FCA, page A7

Keairah Sistare, 17, checks in with Freestate Challenge Academy shift supervisor Gerard Waluyn during in-processing for Class #47 at the APG North (Aberdeen) recreation center July 10.



Construction begins for automated installation entry



Photo by Airman 1st Class Jacob Jimenez
A physical security inspector at Joint Base Lewis-McChord in Washington uses the Automated Installation Entry system during a demonstration in 2014. As a means to enhance security, Aberdeen Proving Ground will soon join other military installations already using the AIE system.

By **YVONNE JOHNSON**
APG News

Entry to Aberdeen Proving Ground is undergoing a major change. The post is set to join other installations around the Army that have moved to the Automated Installation Entry, or AIE, system as a means to enhanced security at access control points.

According to Sam Seay, Chief of Physical Security for the Directorate of Emergency Services, AIE leverages technology to increase security for the Soldiers and their families, DOD civilians, retirees, contract personnel and guests of the installation by electronically verifying an individual's identity and ensuring they meet the Army's approved access standards.

Military identification cards will be vetted through the Defense Enrollment and Eligibility Recording Systems, known as DEERS. As identification cards are scanned, they will be validated by DEERS. If the card is valid, the person will be enrolled in the system for local access. Cards that are not valid, expired, terminated, etc., will not be enrolled and the guard will be alerted. Visitors will also have their identification scanned by guards to be vetted prior to be allowed access to the installation.

Construction of the AIE systems at the Access Control Points began earlier this month and is slated for completion in November, Seay said. During the construction phase, lane closures will occur so drivers should remain aware of which lanes are open.

For more information, contact Seay at 410-278-4631, samuel.e.seay.civ@mail.mil.

index

All Things Maryland | A5

By the Numb#rs | A7

Mark Your Calendar | A8

MWR Events | A8

STREET TALK

What is your favorite road trip snack?

“Hot Tamales. A little spice keeps me awake.”



Col. Peter Mueller
CECOM

“Nuts, because they’re easy to eat and nonfat. And they’re easy to share.”



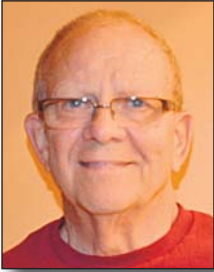
Chayan Artech
Military Spouse

“A granola bar because it helps you have a little more protein in your body. It also gives you the feeling you’re outdoors and not in a car.”



Lorelei Cirrincione
Military Family Member

“We don’t eat in the car because I don’t want a mess.”



David Yensan
Retiree

“Ritz crackers because it’s never too much. You can grab and go.”



Taesha Andre
Air National Guard,
Army Civilian

See Something

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

Provided by the INTEL DIV/DPTMS

Say Something



Navigating online employee compensation portal

CPAC

The Employees’ Compensation Operations & Management Portal, known as ECOMP, allows appropriated fund federal employees to file claims for benefits under the Federal Employees’ Compensation Act, or FECA, online. ECOMP is accessible via www.ECOMP.dol.gov.

Through this portal federal employees and their employers may:

- Electronically file workers’ compensation forms;
- Track the exact status of any form or document submitted via ECOMP; and
- Electronically upload and submit documents to existing Division of Federal Employees’ Compensation (DFEC) case files.

Volunteers and some contractors can have FECA coverage under certain circumstances.

Registering for ECOMP

1. Click the green Sign-In/Register button in the middle of the screen.
2. Enter personal information, including your name, email address, your supervisor’s email address, and choose your agency information. Providing accurate information during registration is very important.
3. Once you have completed the registration information, click the “Create Account” button.
4. Go to your email and complete your registration by clicking the provided link to confirm your email.

Filing claims for FECA benefits

File a CA-1 or CA-2 in ECOMP to claim FECA benefits by clicking the green button in the upper right corner of the employee dashboard screen. Ensure you have chosen an APG location for your “agency” choice. After filling out the required fields in a CA-1 or CA-2 and it has been electronically submitted to the supervisor, the filing individual will be notified of its progress through each step of ECOMP via email. A final email will provide the Office of Worker’s Compensation Program case number.

ECOMP will assign a claim number to the employee within 20 minutes versus the two days it previously took. Once a filing individual has a case number, all documentation can be downloaded via ECOMP at any time. Filing individuals should ensure they are sending copies of all medical treatment notes as well as off duty, restricted duty and return to work duty notes. Copies of all duty notes should be provided on a consistent basis to the supervisory staff as well as the FECA office.

Individuals can also utilize the Claimant Query System, provided by the DOD. This system displays to see the current status of claims, billing payments and medical authorization request statuses. Filing individuals can use this system by visiting www.dol.gov/owcp/dfec/CQS and logging in with their nine-digit claim number. Duty notes must still be provided to the agency and the FECA office.

Additional help and training materials for filing claims can be found at the ECOMP website.

Beat the heat this summer; stay cool, hydrated and prepared

By **CHRIS FRAZIER**
U.S. Army Combat Readiness Center

The hottest months of the year have arrived, and health organizations nationwide are urging Soldiers and civilians to start preparing now to prevent heat illnesses.

Each year in the United States, an average of 658 people die as a result of extreme heat, according to the Centers for Disease Control and Prevention. The CDC recommends everyone take the necessary steps to protect themselves such as staying cool, hydrated and prepared.

The Army is not immune to heat injury, and hundreds of Soldiers suffer from heat illness each year.

“Despite our best efforts, the incidence of heat-related illnesses has remained stable,” said Maj. David DeGroot, Ph.D., U.S. Army Public Health Center (Provisional), at APG. “Over the past five years, more than 200 Soldiers have been hospitalized due to heat stroke each year, and over 1,000 additional Soldiers have been hospitalized for other heat illnesses.”

Fortunately, leaders and Soldiers can take preventive measures to reduce the risk of serious heat illness. DeGroot said leaders should arrange training schedules so the most strenuous activities take place in the early morning rather than during the hottest part of the day.

“Likewise, strenuous activities should not be scheduled back-to-back,” DeGroot said. “There is a cumulative effect of repetitive days of training in warm or hot conditions. Therefore, leaders might also need to modify training based on the prior day’s weather and their Soldiers’ activity level.”

Soldiers can help reduce their risk by taking care of their bodies. DeGroot said an out-of-shape male Soldier is at three times the risk of suffering an exertional heat injury, while a Soldier who is both out of shape and overweight is at eight times the risk.

“Preparing for the heat starts with a year-round approach to maintaining physical fitness and a healthy body weight,” DeGroot said.

Soldiers and leaders must also remember proper hydra-



tion can help prevent heat illness. While there is no consensus for the best method of determining hydration status in the field, DeGroot said the combination of first morning urine color assessment, body weight changes and thirst sensation can be helpful indicators. The presence of two of those three markers indicates dehydration is likely, while three out of three indicates dehydration is very likely.

“Serious heat illnesses are preventable, but doing so requires a two-pronged approach between leaders and Soldiers,” DeGroot said. “When we take the time to prepare, there’s no reason we can’t beat the heat.”

For more information on heat injury prevention, visit <https://safety.army.mil>.



See more photos from events around APG

<http://www.flickr.com/photos/usagapg/>

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



APG NEWS

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APG, community talk STEM and partnerships

Story and photo by
YVONNE JOHNSON
APG News

The revitalization of relations between APG and local community leaders took another step forward during a June 30 meeting at the Donaldson Brown Center in Port Deposit.

Larry Muzzelo, deputy to the commanding general, U.S. Army Communications-Electronics Command, or CECOM, led the event, along with Cecil County Executive Tari Moore and Frank Lands, deputy to the APG Garrison commander. Local leaders from both Harford and Cecil Counties attended the catered lunch event inside the historic Georgian mansion located on a 200-foot rock cliff overlooking the Susquehanna River.

The quarterly event, coordinated by the garrison public affairs office, was hosted by Cecil County. Garrison Community Relations Officer, Rick Scavetta said the event drew more participants than a similar March 10 gathering—a testament to the growing interest local stakeholders have in the proving ground, its employees, its Soldiers and its future.

“This time it was unique,” Scavetta said. “We had a lot of folks from the towns, public schools, the Susquehanna Workforce Network, just a great mixture for the exchange of ideas.”

STEM education

Nicole McKew, of the Edgewood Chemical Biological Center outreach specialist, briefed on the center’s contributions to chem/bio defense and its STEM (science, technology, engineering and mathematics) outreach projects such as Engineering is Elementary (EiE); internship programs, and developing relationship with Cecil County Public Schools and the Boys and Girls Clubs.

Erica Bertoli, of the Communications,

Electronics Research, Development and Engineering Center, or CERDEC, talked Team APG STEM and its use as a roundtable knowledge base. She said the next STEM event, set for Sept. 28, will include students from throughout Harford and Cecil counties as well as mentors from RDECOM organizations such as CERDEC and the Army Research Laboratory, or ARL. For more information about the APG STEM Roundtable call 410-306-3597 or email usarmy.apg-stem@gmail.com.

“We are really trying to push forward the idea that APG is part of your community,” Bertoli said.

During the March meeting, Maj. Gen. Bruce T. Crawford, APG senior commander, suggested an additional direct for APG’s STEM outreach—broadening the current programs to include STEM Agricultural or Ag STEM outreach. Scott English, a forester with the Directorate of Public Works, is in the early stages of breathing life into an Ag STEM Program looking toward the current

STEM structure already in place and looking for natural resources emphasis.

Several APG organizations, such as the Garrison, the U.S. Army Medical Research Institute for Chemical Defense, or MRICD; Army Public Health Center, or PHC; and ARL are “on board” for the 2017 school year. The next Ag STEM meeting was scheduled for July 12.

Roundtable discussion

A leadership roundtable discussion followed the presentations which turned to the discussion of jobs and opportunities at APG. There was a brief discussion of an anticipated careers page on the Team APG website, www.teamapg.com, to help job seekers and potential interns find resources. The careers area of the website is expected to be available in the next 30 days.



From right, Cecil County Executive Tari Moore introduces herself as Larry Muzzelo, deputy to the commander, U.S. Army Communications-Electronics Command, CECOM, listens in with Frank Lands, deputy to the APG Garrison commander; and Col. Jerry Vavrina, chief of staff, 20th CBRNE Command. The leaders gathered at the Donaldson Brown Center in Port Deposit, June 30, for the quarterly Community Leader Lunch.

Additionally, public affairs specialist Heather Roelker offered an update on planning for APG’s centennial in 2017 and Daniel Whipp of the Chesapeake Science and Security Corridor discussed the Joint Land Use Study.

Additional APG attendees included: Col. Jerry Vavrina, chief of staff of the 20th CBRNE Command; Leslie Lovick, director of the APG Civilian Personnel Advisory Center, or CPAC; Kelly Luster, APG Garrison Director of Communications; Lisa McKinney of CPAC; and Jansen Robinson, a member of the Edgewood Community Advisory Council who works at ECBC.

Scavetta, who leads the installation community relations, or COMREL efforts, said the June event built upon the previous meeting. It showcased APG’s efforts in the local area to include education, environment, and community service. In recent months, he’s attended various community meetings and highlighted the importance of periodic networking between parties with shared interests.

“It was great having that kind of briefing in this kind of forum,” he said. “For people to work together, they need to know each other. This paves the way forward. People left with a lot of new ideas.”

Cecil County volunteered to host this time and Harford County hosts the next meeting in September. Then, APG will take its turn again, with a tour of the post for local leaders, he said.

“I really appreciated our presenters,” Scavetta said, noting that McKew “is very passionate about STEM outreach” and Bertoli “did a great job” talking about education. Local leaders want to keep an open dialogue with APG’s senior leaders, he said.

“I think that’s something we fulfilled,” he said. “This was a chance to share ideas, like workforce development, in an open forum. The challenge now is to keep the dialogue going and use the communication tools that we have to provide a forum that will benefit all of us.”

How are we doing? E-mail comments and suggestions for the APG News to the editor at usarmy.apg.imcom.mbx.apg-pao@mail.mil

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Full Color

Military child installs Little Free Library in Havre de Grace

By **RACHEL PONDER**
APG News

To promote literacy and the love of reading, a military child recently became the first resident in Havre de Grace to build a Little Free Library for the city.

APG youth Isabella Lugo Frasier, 7, the daughter of Maj. Alexmi E. Lugo with the U.S. Army Test and Evaluation Command, and Melissa Frasier, said she wanted to set up a Little Free Library book exchange in Millard Tydings Memorial Park to promote reading in the community.

“I wanted people to be able to read books even if they didn’t have money,” she said. “And I wanted them to love books just as much as I do.”

The Little Free Library, or LFL, is a nonprofit organization with the official motto of “Take a Book, Return a Book.” Free books are housed in small containers, usually about the size of a doll house that can be purchased from the LFL website, or built by a volunteer. Earlier this year, the first Little Free Library furnished by the city was placed near the newly renovated Havre de Grace Public Library on Union Avenue.

Erika Quesenberry Sturgill, Havre de Grace Grants and Economic Development coordinator, said Mayor William T. “Bill” Martin and city council unanimously supported the effort to register for and begin a LFL program in Havre de Grace. It is the first chartered LFL program in Harford County.

“The books are for the community, for visitors, for children, teens and adults,” Quesenberry Sturgill said.

Isabella Lugo Frasier said she discussed becoming a LFL steward with her parents, and they agreed to support her decision to build and maintain the library if she got permission from the mayor and the city council.

Her mother helped her set up a presentation for the mayor and city council in April. Before the meeting, she scouted a few locations and drew a sketch of what the proposed library would look like.

“He was really nice and very receptive,” Melissa Frasier said. “The



whole administration has gone above and beyond in this whole process.”

After her plans were approved and a location was selected, Isabella Lugo Frasier designed, built and decorated her library with the help of her father who supplied leftover materials from home projects. Upon completion, it was installed in the park by the Havre de Grace Department of Public Works.

The library was unveiled to the community during a ceremony officiated by Martin on June 22. The mayor helped Isabella Lugo Frasier ceremoniously put the first collection of books in the new library. Teachers and the principal of Havre de Grace Elementary School, which the APG youth attends, were also present at the unveiling.

Lugo, said he is “very proud” of his daughter.

“I am proud that she likes to read and I

am proud that she likes to get involved,” he said. “She has a great heart.”

The family maintains the library, replenishing it with donations from the community and books purchased from garage sales.

(Above) Military child Isabella Lugo Frasier, 7, replenish a Little Free Library she created for Millard Tydings Memorial Park, located in Havre de Grace.

Photo by Rachel Ponder, APG News

(Right) Isabella Lugo Frasier, 7, proudly shows off a coin that she received after meeting with Havre de Grace Mayor William T. “Bill” Martin about building a Little Free Library for Millard Tydings Memorial Park.

Courtesy photo



CDC children, staff explore APG military vehicles

APG North (Aberdeen) child development center staff members lead children into the back of a military vehicle during a recent event at the CDC.

While Month of the Military Child was in April, CDC staff decided to keep the theme going into the summer! To help staff provide a fun-filled learning experience for the kids, the CERDEC C4ISR Prototype Integration & Testing Facility supplied three military vehicles for the kids to explore. The staff’s goal was to show the children how their parents, who work at APG’s mostly civilian base, support the warfighter.

Photo by Kathryn Bailey, CERDEC CP&I

Taking care of your parents’ social security

By **VIRGINIA HARDY**
Social Security District Manager, Abingdon

Your parents were there for you when you were born. They’ve been with you through the most important achievements of your life. Now it’s your turn to show them that they can count on you. As your parents get older, they may need help making decisions. When you volunteer to become a representative payee, you’re supporting your parents and their future.

A representative payee is someone who receives Social Security or Supplemental Security Income, or SSI, payments on behalf of a person not capable of managing the funds on his or her own. As a representative payee, you

would make sure your parents’ basic needs are met by using the money to provide them with food, clothing, and shelter. Any leftover money goes into an interest-bearing account or savings bond for your parents’ future needs. You’re responsible for keeping records of expenses, and we request yearly reports to see how you’ve used or saved the benefits.

Other representative payee duties include knowing your parents’ needs so you can decide the best way to meet



those needs with the benefits provided and telling us about any changes that may affect your parent’s eligibility for benefits or the payment amount.

If your parents receive Social Security or SSI benefits and are unable to manage their finances, or you think that may be the case in the future, take the time to become familiar with the responsibilities of a representative payee and consider becoming one.

To learn more about becoming a

representative payee, you can read our publication, A Guide for Representative Payees, at www.socialsecurity.gov/pubs and visit the webpage, “When People Need Help Managing Their Money,” at www.socialsecurity.gov/payee. Or, call us at 1-800-772-1213 (TTY 1-800-325-0778) to request an appointment.

Take the steps to ensure your parents have a safe and comfortable future. After all they’ve done for you over your lifetime, volunteering as a representative payee is just one way to show how much you care for and appreciate them. Social Security will always be there for you and your parents through life’s journey.

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All Things MARYLAND

35th Annual Artscape

Free festival features art, music, food

By **RACHEL PONDER**
APG News

One summer tradition for many Marylanders is attending Artscape, a Baltimore event, billed as “America’s largest free arts festival.” Now in its 35th year, the event spans three days, from July 15-17.

Artscape encompasses 14 blocks within the city’s cultural district. It features large-scale art installations, outdoor sculptures, decorated cars and photography, and visitors can purchase art from more than 100 vendors at the “Artists’ Market.”

Another big draw to the festival is a full schedule of performing arts that include dance, opera, comedy, theater and performances by the Baltimore Symphony Orchestra. This year’s featured performers include Haitian rapper Wyclef Jean; the American ska punk band The Mighty Mighty Bosstones; and reggae singer and musician Burning Spear.

The event draws more than 350,000 attendees each year, according to Tracy Baskerville, with the Baltimore Office of Promotion & the Arts, and continues to expand ever year. Artscape’s total economic impact on Baltimore City is \$25.97 million.

“Artscape is an event that shows the abundance of talent and creativity that Baltimore has right in its backyard,” she said. “This year, for the first time, 100 percent of our food vendors are from Maryland. Also, many of the artists, performers and musicians at Artscape hail from the Maryland area, but the festival attracts out-of town artists as well.”

This year Artscape has a space theme, with the tagline, “Explore What’s Out There.”

“Space is tangible, literal and metaphorical and spans across all disciplines,” Baskerville said. With pop culture’s fascination with all things interstellar, our theme provides attendees an exciting level of both entertainment and education.”

One highlight of this year’s festival is the “NASA Sun as Art” exhibit, which presents a new way of looking at the sun as seen from space, made possible by advances in sophisticated imaging technology and spacecraft engineering. The exhibit includes 20 full color, high resolution images of the sun and was created by Dr. Steele Hill a media specialist at the NASA Goddard



Festival goers view The Art Car Show, a popular exhibit that has entertained Artscape audiences more than 20 years.



Courtesy photos

(Above, left) Attendees browse handmade jewelry at the Artists’ Market, a juried exhibition highlighting artists who create original, professional quality work. This year, more than 100 vendors will display their work during Artscape. (Above, right) During the 2015 Artscape, Michael Franti, lead singer of Michael Franti & Spearhead, performs on the main stage. This year Wyclef Jean, The Mighty Mighty Bosstones and Burning Spear are set to perform.

Space Flight Center in Greenbelt.

According to Baskerville, the three-day event includes the family-friendly “Kidscape” area, with hands-on space-themed projects, demonstrations, competitions, children’s entertainers and street theater.

Families will also enjoy “Gamescape,” sponsored by the University of Baltimore. This exhibit showcases video games and the people who make them. Attendees will have the opportunity to browse and play video games

from local and national video game developers, as well as more than 30 arcade classics.

Another big draw to Artscape is “Artscape After Hours,” which includes live music and “LOL@Artscape,” featuring local and regional standup comedians. The host for this event is Baltimore comedian Umar Khan, who has performed in local theaters and comedy clubs. Shows are free and open to festival-goers ages 18 and older.

Artscape takes place in the Mount

Royal Avenue and Cathedral Street, Charles Street, Bolton Hill and Station North Arts and Entertainment District Neighborhoods. The festival is held outdoors in tents and inside exhibition spaces and performing art venues, and is handicap accessible. Hours are Friday 11 a.m. to 9 p.m.; Saturday 11 a.m. to 9 p.m. and Sunday 11 a.m. to 8 p.m. Artscape After Hours is held 9 p.m. to 11 p.m., Friday and Saturday. For a schedule of events visit www.artscape.org.



MDNG 29th MP Company deploys to Cuba

Citizen Soldiers of the 29th Military Police Company gather for a moment of esprit de corps during a deployment ceremony in Westminster, Maryland, July 5.

During the ceremony, the Maryland Army National Guard 29th MP Company readied for a one-year deployment to Guantanamo Bay Naval Base, Cuba and said goodbye to family and friends. The company was reactivated in 2009 and has since participated in multiple state active duty missions including hurricane and snow relief and the civil unrest in Baltimore City in 2015.

Photo by Sgt. 1st Class Thaddeus Harrington, Maryland National Guard

MORE ONLINE

Come and follow us for news and events going on at and around the U.S. Army Garrison Aberdeen Proving Ground, visit the garrison twitter site <http://twitter.com/USAGAPG>



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Peduzzi, Jill L.
Redman, Corinne L.
Rodriguez, Pedro
Ruff, Albert L.
Squillaciotti, Richard John
Shoaf, Meaghan L.
Solomon, Je’Neane
Soto, Robert Alan
Thompson, Curtis
Tisdale, Dorris A.
Tober, Linnea L.
Vaccaro, Dominic S.
Villanueva, Jenny
Waters, Patricia M.
West, Abby Lee
Williams, Rodney B. Jr.

APG Garrison’s FWP elects new officers

By **YVONNE JOHNSON**
APG News

The APG Garrison Federal Women’s Program, or FWP, has announced the newly-elected office holders who will lead the organization through the installation’s centennial celebration and beyond.

In the top three positions, Nnenna Ewing of the U.S. Army Materiel Systems Analysis Activity, AMSAA, takes over as the new chairperson. She’ll be assisted by Danielle Kelley of the U.S. Army Research, Development and Engineering Command’s Army Research Laboratory, ARL. Another RDECOM civilian, Tiffany Cervantes of the U.S. Army Communication-Electronics Research, Development and Engineering Center, CERDEC, will serve as secretary.

Also selected was FWP Historian, Teresa Rudd of RDECOM’s Edgewood Chemical Biological Center, or ECBC, and Elizabeth Young, also of AMSAA, as hospitality coordinator.

“These ladies were elected in June and will serve a two-year term through June 2018,” said Linda Patrick, FWP publicity chair and a technical writer with the Army Public Health Center.

Patrick said the officers are required to maintain contact with APG leadership, preside over FWP committees and coordinate the annual Women’s History Month and Women’s Equality Day observances in March and August, respectively.

Women’s Equality Day is set for 10:30 a.m., Wednesday, Aug. 24 in the Myer Auditorium at APG North (Aberdeen). For more information, contact Tiffany Cervantes at tiffany.n.cervantes.

civ@mail.mil; or Teresa Rudd at teresa.d.rudd.civ@mail.mil.

New FWP Officers Nnenna Ewing, FWP chairperson

Nnenna Ewing is an electrical engineer with the AMSAA Chemical Demilitarization Team’s Mob/CBRN Branch. She has been an FWP member since 2014 and she served as her organization’s alternate FWP representative, 2014-15; and as the FWP hospitality coordinator, 2015-16.

Ewing, who is in the process of changing her last name to ‘Johnson,’ has more than six years as a government civilian; AMSAA is her first and only organization.

She said she’d like to see women take on greater roles to enhance advancement.

“I have a burning desire to increase female organizational presence within the STEM (science, technology, engineering and mathematics) fields,” she said, adding that she is focused on networking with women in leadership at APG and upholding the FWP goals of identifying and eliminating employment barriers, and providing training as well as eliminating factors that inhibit advancement.

“FWP members and prospective members can expect me to meet my duties as assigned as the chairperson for the next two years,” Ewing said. “I am actively engaged in the commitment to serve, represent, and empower women at APG and beyond.”



Ewing

She added that she would like to see more women take an interest in FWP.

“Joining FWP would mean that you are willing to work diligently for the greater good of the community; that you are interested in becoming stronger, wiser, smarter, and sharper; and that you are dedicated, willing, and ready to taking advantage of the many opportunities that result from self-growth and overall career improvement.”

Danielle Kelley, FWP vice chairperson

Kelley is an intelligence specialist with 15 years of government service; 11 with ARL at APG. She said that along with continuing the FWP mission, during her two-year tenure, she’d like to increase dialogue between organizations and commanders and help grow the overall program.

“I would like to increase cooperation with APG commanders and tenant organizations in carrying out FWP objectives and responsibilities, [and] I would like to increase participation in FWP training programs and provide additional career growth opportunities for members of Team APG,” Kelley said.

She added that current and future members can expect her to fulfill the duties of vice chair to include assisting in the planning of all programs, observances and training events coordinated by the committee.

She said the FWP positively impacts women government workers lives

because it promotes Equal Employment opportunities through training and professional development.

“Committee members interact with representatives from the major commands on the installation to promote fair and equal treatment to all individuals [and] members are provided leadership opportunities, teamwork skills, and opportunities to build relationships and network outside their organization,” she said.

“Members can expect for me to meet my duties as the vice chair, support the FWP chair, attend committee meetings, establish meeting agendas and standing committees; solicit volunteers and assist with planning all programs, observances and training events.”

Tiffany Cervantes, FWP secretary

Cervantes is a program analyst with 10 years of service to the government, seven of those with CERDEC.

She said he hopes to, “provide women at APG with the best training opportunities available to help further their personal and professional lives,” and she plans to encourage increased participation in FWP events.

Cervantes said members can expect her to work with the chair and co-chair to support FWP’s missions and provide additional assistance as needed.

Women should join FWP, she said, because it presents a host of training and network opportunities.



Kelley



Cervantes

Mosquito samples sent to Ft. Meade for testing

Continued from Page A1

tary installations and housing area mandated by the Office of the Secretary of Defense.

There are currently has five testing sites on APG North (Aberdeen) and two on APG South (Edgewood). Former APG Garrison entomologist Stanley Futch helped determine the best locations to conduct this surveillance, Gonzalez said.

The environmental health team uses two different kinds of traps to collect the mosquitoes. The CDC light trap, which was developed by the U.S. Centers for Disease Control, or CDC, provides a reliable and portable sampling device for the collection of mosquitoes.

Special traps that are manufactured by a private company have been designed with more than 15 years of research to attract the *Aedes aegypti* and *Aedes albopictus* mosquitoes, which have the potential to carry the Zika virus, as well as other viruses with similar symptoms, such as the dengue or chikungunya viruses, Gonzalez said. These traps, which are used in combination with a lure release a combination of non-toxic substances that are also found on human skin, attracting the mosquitoes.

Mosquitoes are collected once a week, and female mosquitoes are identified by species, and then shipped to the U.S. Army Public Health Command-Atlantic (Provisional), located at Fort Meade, Maryland, where the Entomological Sciences Branch test for pathogens.

Gonzalez said that pest control measures will be recommended to the Environmental Management Division Pest Control once the threshold value of 20 mosquitoes per trap is exceeded.

According to the CDC, no local mosquito-borne Zika virus disease cases have been reported in the U.S., but lab tests have confirmed Zika virus in travelers returning to the U.S.

“With the recent outbreaks, the number of Zika cases among travelers visit-



Capt. Maritzabel Gonzalez, the Kirk U.S. Army Health Clinic deputy chief of Preventive Medicine, inspects a mosquito under a microscope to determine the species.

ing or returning to the United States will likely increase. These imported cases could result in local spread of the virus in some areas of the United States,” according to the CDC website.

Mosquito Control and Personal Preventive Measures

Gonzalez said simple preventive measures can keep the local mosquito population under control. Mosquitoes require water to breed. Do not allow water to accumulate in outdoor containers, she said.

“Once a week, empty and scrub, turn

over, cover, or throw out items that hold water, such as tires, buckets, planters, toys, pools, birdbaths, flowerpots, or trash containers,” she said. “Female mosquitoes lay several hundred eggs on the walls of water filled containers. Eggs stick to containers like glue and remain attached until they are scrubbed off. When water covers the eggs, they hatch and become adults in about a week.”

Other personal preventive measures include wearing long-sleeved shirts and long pants outdoors, and using insect

repellent that contains the active ingredient DEET or picardin, an ingredient approved by the U.S. Environmental Protection Agency. When used as directed, these insect repellents are proven safe and effective even for pregnant and breastfeeding women.

If you see a mosquito trap on post, do not disturb it. For more information call Preventive Medicine at 410-278-1964.

For more information about the Zika virus, visit <https://phc.amedd.army.mil/topics/discond/diseases/Pages/Zika.aspx>.



Have a great idea for a story?

Know about any interesting upcoming events?
Wish you saw more of your organization in the paper?

The APG News accepts story ideas and content you think the APG community should know about.

- Story ideas or content must be geared toward the greater APG community and cannot appear to endorse any private company.
- The deadline for content to appear in an upcoming issue of the APG News is the **Thursday PRIOR** to publication. The APG News cannot guarantee submissions received after the Thursday prior to publication will appear in the next issue of the paper.
- Send story ideas or pre-written content to amanda.r.rominiecki.civ@mail.mil or call 410-278-7274 for more information.

Please note, the APG News editor reserves the right to (1) reject any content deemed inappropriate, irrelevant or against regulation, (2) delay the publication of submitted material if it is not timely and (3) edit or shorten content for space and style reasons without altering the meaning of the submission.

FCA candidates enter two-week adjustment period

Continued from Page A1

tests, also known as the GED. The candidates said goodbye to family members, submitted medical and academic paperwork, were given uniforms, and received the FCA handbook, which they were instructed to read from “cover to cover.”

FCA recruiter Kelvin Chandler said Class #47 had approximately 230 applicants. Prior to being accepted into the program, the teens and their parents must attend orientation and be interviewed by staff members. “We say during orientation that teens just need to have a willingness to complete the program and be mentally and physically capable,” he said.

Those accepted during in-processing enter the acclimation phase, a two-week time period that allows them to adjust to the structured environment and decide if they want to remain in the program, Chandler said.

If the candidates choose to stay, they will become FCA cadets during a cross-over ceremony July 25.

Vandra Turner-Covington, president of the newly formed FCA Parent Association, talked to parents and caregivers about how they can stay involved while their teen is attending the academy. She has first-hand experience watching a child progress through the program; her son DeMarcus Covington graduated from Class #44.

Turner-Covington said parents can give back to the program by volunteering as chaperones, tutors or mentors.

“I told the parents [that] it is a tough program, especially in the first two weeks,” she said. “But in the long run it was worth it to see my son walk across that stage.”

Recent FCA graduate Harry Jones, 18, from Class #46 also assisted during in-processing.

“I told the candidates to not lose the



From left, Freestate ChalleNGe Academy Corporal Tamika McKenzie, checks the personal items of Candidate Aishatu Nasuru during the in-processing of Class #47 candidates at the APG North (Aberdeen) recreation center July 10.

handbook and listen to what the sergeants have to say,” he said. “I really loved this program.”

FCA Graduate Deja Williams, also from Class #44, told the candidates to stay positive throughout the process.

“Give it your all,” she said. “Be very open to new things, expand yourself.”

Candidate Mia Ward, 16, said she was excited to start and that she hoped to pursue a career in law after graduation.

“It is something new, different surroundings,” she said. “I am ready.”

Ward’s mother, Angel Jones, said she is proud of her daughter’s decision to attend FCA.

“I will support whatever she decides to do,” she said.

Candidate Gerrell Evans, 17, admitted that it was difficult leaving his family, especially his daughter, Brooklynn Evans, who is 8 months old.

“I am doing this for my little girl,” he said. “I want to have a better life for her.”

FCA has graduated more than 4,000 cadets since its inception in 1993. It is endorsed by the State of Maryland and is in a cooperative agreement between the Maryland National Guard and the National Guard Bureau. For more information visit <http://freestatemil.maryland.gov/> or call 410- 436-3331.

5 ways to reuse your copy of the APG News

1. Protect fragile items before storing them or sending them in the mail.
2. Line pet cages or litter boxes to keep them tidy.
3. Save the counter from a gluey, glittery mess during your next craft project.
4. Clean glass or windows for a streak-free shine.
5. Make a weed barrier in a flower bed or garden before laying new topsoil.



BY THE NUMB#RS

Bastille Day

On July 14, 1789, a Parisian mob – frustrated by the French monarchy’s dictatorial rule – stormed the prison known as the Bastille. The event marked the start of the French Revolution, and today its anniversary is celebrated to honor the French Republic.

1880

Year that Bastille Day was established as a French national holiday. A military parade has been held every year since, in Paris. Celebrations similar to the U.S. Independence Day on July 4, occur throughout France.

108

Number of people who died during the storming of the Bastille. This included 100 citizens and eight prison guards.

80

Feet in width of the moat once surrounding the Bastille. Built in the 1300s, it also had eight 100-foot-tall towers.

43

Height, in feet, of the Eiffel Tower replica displayed in Milwaukee, Wisconsin during the city’s Bastille Days festival. Wisconsin was originally settled by the French, and today its Bastille festival attracts 250,000 people.

7

Number of prisoners in the Bastille on July 14, 1789. It had enough space to hold up to 50, and at the time served, instead, as a large cache for ammunition and gunpowder.

1 lb. 3 oz.

Weight of the principal key to the Bastille. It was given as a gift, symbolizing the end of tyranny, to President George Washington in 1790 by Marquis de Lafayette, a key figure in the American and French revolutions.

By **AMANDA ROMINIECKI**, APG News

Source(s): history.com/; mountvernon.org/; bastille-day.com/; origins.osu.edu/; www.bl.uk

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FREEDOM FEDERAL
APG News
2 x 10.14
Full Color

MARK YOUR CALENDAR

EVENTS & TOWN HALLS

CHILD DEVELOPMENT CENTER JOB FAIR JULY 16

APG North (Aberdeen) youth center; 10 a.m. to 2 p.m. The Child Development Centers are now hiring child care workers for the three facilities at APG. Applicants must be at least 18-years-old and possess a minimum of a high school diploma/GED. Work schedules include irregular shifts and may guarantee up to 20 hour irregular shifts during the hours of 5:45 a.m. to 6:30p.m. Salary range is \$12.33 -\$19.63 per hour. For more information, visit www.apgmwr.com/upcoming-events.

GARRISON TOWN HALL JULY 21

APG North (Aberdeen) recreation center; 10 to 11:30 a.m.

INSTALLATION TOWN HALL JULY 21

APG South (Edgewood) recreation center; 3 to 4 p.m. Installation social to immediately follow.

JOB FAIR & EMPLOYMENT RESOURCE DAY AUGUST 3

APG North (Aberdeen) recreation center, Bldg. 3326, 11 a.m. to 2 p.m. Open to all Team APG and general public. Will include employers from local, state and federal government agencies and the private sector. For more information, visit www.apgmwr.com/upcoming-events.

WOMEN'S EQUALITY DAY OBSERVANCE AUGUST 24

Myer Auditorium, Bldg. 6000, 10:30 a.m. For more information, contact Tiffany Cervantes at tiffany.n.cervantes.civ@mail.mil or 443-395-4343.

MEETINGS & CONFERENCES

FIRE MARSHALL TRAINING AUGUST 11

Bldg. 4403. 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.

EEO HR FOR IMCOM SUPERVISORS TRAINING SEPTEMBER 22

Bldg. 3147. 8 a.m. to 4:30 p.m. Registration is required. Maximum of 50 people per class. For more information, contact Charles

Gilmore at charles.l.gilmore3.civ@mail.mil or 410-278-0130.

FIRE EXTINGUISHER TRAINING AUGUST 17

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.

HEALTH & RESILIENCY

CPR & AED TRAINING CLASSES JULY 21

Bldg. 3147, room 205. Classes at 9 a.m. and 1 p.m. Hosted by the APG Directorate of Emergency Services. Classes are open to the entire APG community. For more information, contact Mike Slayman at 410-306-0566.

CREATING A SOLID SPENDING PLAN INFO SESSION JULY 21

Bldg. 6001, 2nd floor, room 224. 11:30 a.m. to 12:30 p.m. Hosted by C4ISR Wellness Committee, open to all. Class instructor will spell out in step-by-step detail how to draw your own financial blueprint for action. Each participant will come away with a personal action plan, ideas for how to save money, and a better understanding of how to track where your money goes. NON C4ISR employees must bring their CAC CARD to gain access to the building. For more information, contact Tiffany Grimes at 443-861-7901 or tiffany.l.grimes.civ@mail.mil.

MARRIED COUPLES RESILIENCY JULY 25-26

Chesapeake Regency Resort. A training program for couples with a desire to work on their relationship. Open to civilian employees at Aberdeen Proving Ground and their spouses. For more information, or to register, contact Chaplain Arleigh vonSeggern at arleigh.f.vonseggern.mil@mail.mil

C4ISR HEALTH EXPO & FITNESS CLASSES JULY 28

Mallette Mission Training Facility, Bldg. 6008. 11 a.m. to 1 p.m. Hosted by C4ISR Wellness Committee, open to all. Event will include health screenings and info from various local health and wellness vendors. Fitness classes are: Butts & Guts, 11 to 11:30 a.m.; Cardio Kick, 11:30 a.m. to noon; Zumba, 11:45 a.m. to 12:15 p.m.; and Pilates, 12:15 to 12:45 p.m. For more information, contact Tiffany Grimes at 443-861-7901 or tiffany.l.grimes.civ@mail.mil.

NUTRITION AWARENESS DAY JULY 29

APG Commissary, 10 a.m. to 2 p.m. Community Health Promotion Council to host event exploring: how to become a savvy food shopper to support healthy eating habits, learn strategies to incorporate seasonal produce into meals and how to decipher food labels. Reps from TRICARE, Blue Cross Blue Shield, KUSAHC and the Army Wellness Center will be available.

EDGEWOOD DENTAL CLINIC CLOSED AUG. 11

For more information, contact Sgt. Tracy Glover at tracy.s.glover4.mil@mail.mil.

FAMILY & CHILDREN

APG VACATION BIBLE SCHOOL JULY 18-22

APG North (Aberdeen) main post chapel. 5:30 to 9 p.m., July 18; 6 to 9 p.m. all other days. Registration is now open for the free, week-long program for pre-school to sixth grade children and youth. Volunteers are also needed.

To register or sign up as a volunteer, contact John Edwards at john.m.edwards3.civ@mail.mil or call 410-278-2516.

ANNOUNCEMENTS & MISCELLANEOUS

FEDERALLY EMPLOYED WOMEN SCHOLARSHIP DEADLINE JULY 25

The Maryland Tri-County Chapter of Federally Employed Women (FEW) awards the one-time \$500 Dottie Dorman Working Woman Scholarship each year to a woman who is currently employed in federal service and working in the Harford, Cecil or Baltimore County areas.

Individuals applying for the scholarship must be currently enrolled at a college or university pursuing their first undergraduate or first graduate degree. For the application or additional information, contact Karen Jobs at kwjobs@gmail.com, 410-436-4429; or Michelle Williams-Gibson at michelle.williams-gibson.civ@mail.mil, 443-861-4613.

APG SOUTH 2016 WATER MAIN FLUSHING

The APG South (Edgewood) 2016 water main flushing schedule is as follows: July through Sept.: E3000-E4000 area; Aug. 11-13: APG South housing area, E1220-E1300 area, and child care center; 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.

BIBLE STUDY CLASS

APG North (Aberdeen) chapel. 6:30 to 7:30 p.m. Soldier and Family Christian Fellowship Bible Study Class focusing on biblical fellowship and outreach and encouragement through prayer. Open to all. Free child care included. For more information, call 410-278-4333.

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.

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.

MORE ONLINE



More events can be seen at www.TeamAPG.com

If you see it, report it

Aggressive driving has no place at APG
call 410-306-0550



MORALE, WELFARE & RECREATION



Upcoming Activities

Learn more about APG MWR activities and services by going online at www.apgmwr.com.

LEISURE & RECREATION

JERSEY BOYS DISCOUNT TICKETS

Tickets are available for the Sept. 29 performance of Jersey Boys at the Hippodrome Theater in Baltimore starting at 8 p.m. Tickets for upper balcony are \$39 and available until supplies last. The show is not appropriate for children.

To purchase tickets please visit MWR Leisure Travel Services at the APG North (Aberdeen) recreation center, Bldg. 3326. For questions call 410-278-4011/4907 or email usarmy.apg.imcom.list.apgr-usag-mwr-leisuretravel@mail.mil.

INSTALLATION SOCIAL JULY 21

APG South (Edgewood) recreation center. 4:30 to 6:30 p.m. Complimentary refreshments and cash bar. For more information, call 410-278-3062.

NEW YORK BUS TRIP SEPTEMBER 24

Departs APG North (Aberdeen) recreation center at 7 a.m. Returns at 9 p.m. Cost is \$51 per person. To reserve a seat, call 410-278-4011.

CHILD & YOUTH SERVICES

FAMILY MOVIE NIGHT JULY 22

APG South (Edgewood) recreation center. 6 p.m. "Kung Fu Panda 3." Free movie, giveaway, snacks, and craft activity. For more information, call 410-278-4011.

ACS & RESILIENCY

DOLLARS AND SENSE JULY 28

ACS Bldg. 2503, 2nd floor classroom.

11:30 a.m. to 12:30 p.m. Session provides participants with a better understanding of their relationship with money and provide tools needed to control their spending. To register, call 410-278-2453.

SPORTS & RECREATION

NIGHT GOLF JULY 22

Exton Golf Course; 5:30 p.m. 18 holes, dinner provided. \$35 for member, \$45 for authorized, \$50 for guest. For more information, call 410-436-2213.

KAYAK CLASSES AUG. 11 & 12

Spesutie Island Marina. 6 to 8:30 p.m. \$60 per person. Open to all eligible MWR patrons. Registration required, deadline is three days before class. Five days prior to class, excursion must meet minimum participants to take place. To register, call 410-278-4124/5789/2134/2135 or email usarmy.APG.imcom-fmwrc.list.usag-mwr-outdoorrec@mail.mil.

KAYAK EXCURSIONS JULY 29; AUG. 27

Excursions leave from Skippers Point. Cost is \$40 per person. 8 to 11 a.m., June 25; 6 to 8:30 p.m., July 29; 8 to 11 a.m. Aug. 27. Open to all eligible MWR patrons. Registration required, deadline is three days before class. Five days prior to class, excursion must meet minimum participants to take place. To register, call 410-278-4124/5789/2134/2135 or email usarmy.APG.imcom-fmwrc.list.usag-mwr-outdoorrec@mail.mil.



Installation Social

July 21

4:30 - 6:30 p.m.
EA Rec Center, Bldg E4140

Complimentary refreshments and cash bar

For more information contact Teri Hall
Teri.S.Hall.naf@mail.mil
410-278-3062



Learn more about APG MWR activities & services by going online at www.apgmwr.com and downloading the FMWR Directory.

inside

STEM

ARL plays host to middle school students in Maryland and New Mexico during summer STEM program.

Summer | B2

INTELLIGENCE

New capabilities of DCGS-A to provide timely, actionable intel

NEW | B4

VEHICLES

Vehicle track in Alaska puts military, commercial vehicles through the wringer.

Cold | B5

newsbrief

FEDERAL EMPLOYEES & POLITICAL ACTIVITY

Secretary of the Army Eric Fanning

The 2016 election season is upon us with the U.S. general election scheduled for Nov. 8. Until further notice, Department of the Army personnel are prohibited from engaging with potential presidential candidates and their authorized representatives on any matter related to their official duties under any circumstances. DA personnel shall report any contact from potential presidential candidates and their campaigns immediately to the Administrative Assistant to the Secretary of the Army, who is the Army's Transition Assistance Coordinator.

For DOD civilians, participation in political activity is regulated by a number of sources including the Hatch Act. For more information about acceptable political activity, personnel should contact their local legal or Staff Judge Advocate (SJA) office. General guidance on the Hatch Act may be found at the U.S. Office of Special Counsel website at www.osc.gov.

Civilian employees may never engage in political activity while on-duty or in a federal building, even when off-duty or using a personal smartphone, tablet, or computer. Employees should never use government equipment when engaging in political activities.

Per longstanding DOD policy, active duty personnel may not engage in partisan political activities and all military personnel should avoid the inference that their political activities imply or appear to imply DOD sponsorship, approval, or endorsement of a political candidate, campaign, or cause.

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Photo by Sgt. April Campbell, 82nd CAB PAO

Edgewood Chemical Biological Center researchers have developed a decontamination spray that enables Soldiers at the unit level to decontaminate vehicle surfaces in the field immediately after exposure to a chemical weapons agent and continue with their mission.

Chemical decontamination

ECBC develops spray to immediately decontaminate surfaces in the field

Edgewood Chemical Biological Center

Edgewood Chemical Biological Center, or ECBC, researchers have developed a decontamination spray that enables Soldiers at the unit level to decontaminate vehicle surfaces, even vertical surfaces, in the field immediately after exposure to a chemical warfare agent and continue with their mission.

The formulation is being developed so that it can be transitioned to an acquisition program and ultimately put in the hands of the warfighter.

ECBC's Chemical Biological Radiological, or CBR, Filtration Branch developed a material based on zirconium hydroxide as a filtration adsorbent that was also discovered to react with and neutralize chemical agent molecules.

"This discovery led to collaboration with the Decontamination Sciences Branch where

See SOFTWARE, page B7

Frame-by-frame navigation

Story and photo by KATHRYN BAILEY

CERDEC CP&I

A picture may truly be worth 1,000 words to Soldiers who lose GPS while on patrol.

The Army Materiel Command's Communications-Electronics Research, Development and Engineering Center, or CERDEC, is using miniature cameras to create vision-aided navigation capabilities in GPS-denied situations.

"Vision-aided navigation works by using cameras with rapid frame rates to take pictures of objects in view and then comparing the object's features in each frame to determine how far, and in what direction, the camera has moved in relation to the object," said Eric Bickford, an engineer in CERDEC's Command, Power and Integration Directorate's Positioning, Navigation and Timing Division, or CP&ID PNTD.

The camera catches even the slightest movement through feature detection, which allows users to leverage the camera's

See NAVIGATION, page B7

Eric Bickford, U.S. Army CERDEC engineer, compares the current prototype vision-aided navigation system with a 3-D rendition of a planned smaller, more Soldier-wearable system. CERDEC engineers are analyzing the systems as a possible emerging and alternative navigation technologies for future combat operations.



Army, Drexel University commence new partnership

Drexel University President John A. Fry, left, meets with Dr. Philip Perconti, acting director of the U.S. Army Research Laboratory June 27 at APG.

Army officials hosted a visit from Drexel University leadership to commence a new multi-task, five-year Cooperative Research and Development Agreement. The joint research agreement is intended to spur scientific research in areas of mutual interest, officials said.

In May, the Army announced its new partnership with the university initially to identify damage on Army aircraft due to metal fatigue and high stress and to formally address modeling approaches to the severity of damage precursors in aviation structures.

Photo by Jhi Scott, ARL

Meet PEO IEWS superstar Rich Eckert

By **BOB DIMICHELE**
DCGS-A

Richard G. Eckert is the lead financial analyst for Increment 2 of the Distributed Common Ground System-Army, known as DCGS-A. Eckert is responsible for costing, scheduling, funding, and program analysis for the DCGS-A Program Management Office. “I build budgets,” he explained.

DCGS-A is the Army’s primary system for the processing and dissemination of multi-sensor intelligence information to the warfighter. DCGS-A combines all intelligence software and hardware capabilities within the Army into a system of systems to enhance situational awareness and rapid decision-making. DCGS-A follows an evolutionary acquisition strategy to incrementally develop and field new capabilities and system improvements throughout its life cycle.

Eckert’s role entails capturing the technical requirements for the program and developing a cost estimate which addresses and justifies an executable plan to achieve the program’s goals of creating and fielding the intelligence system across the Army.

“I’m part of the team that builds a cost model for the program so we can react to budgetary actions and changing financial circumstances that impact the program,” Eckert said. This cross-functional team includes cost analysts, engineers, contract specialists, requirements analysts, logisticians and others from the Program Management Office, the TRA-DOC Capabilities Managers, and sustainment organizations such as the Logistics and Readiness Center and the Software Engineering Center.

“Together we analyzed and prioritized the technical requirements for the program. From there we developed a bottoms-up cost estimate to satisfy these



Courtesy photo
Richard G. Eckert is the lead financial analyst for Increment 2 of the Distributed Common Ground System-Army (DCGS-A). Eckert is responsible for costing, scheduling, funding, and program analysis for the DCGS-A Program Management Office. He has recently been cited by the Program Management Office as its “superstar” for July.

requirements,” he added. “After costing the total requirements we addressed affordability.” The initial estimate created by the team was used to develop five courses of action. The courses of action represented options for the PM to manage the required trade-offs in performance (capabilities), cost and schedule. From that effort, the program’s current course of action was selected. “This part of the process took more than a year,” Eckert said.

He describes one of his most challenging roles as being a part of the Cost Review Working Group with the Office of the Deputy Assistant Secretary of the Army (Cost and Economics). For exam-

ple, Eckert said, “we worked with the DASA-CE analysts for several months to complete a Sufficiency Review.”

That effort set the stage for the next step, a reconciliation of the Program Office Estimate and DASA-CE prepared independent cost estimate. After spending several more months, the product of this team effort was the formal Army Cost Position, the program’s validated budget estimate necessary to justify Army funding and a successful acquisition milestone decision. “From beginning to end the entire process encompassed two years of hard work and collaboration,” Eckert explained.

“Cost estimating is a critical aspect

of all acquisition milestone decisions,” according to Lt. Col. Laura Poston, product manager for DCGS-A Increment 2. “It takes a team to thoroughly develop each and every line. It takes a diligent, patient lead like Rich Eckert to gather information from many sources and get the correct information into AECIT (Automated Cost Estimating Integrated Tools) and ensure the cost model is right. We are very fortunate to have him on the Increment 2 team.”

Eckert’s success in a complex acquisition program is long-term and comes from experience, training, and education. He has been a part of the DCGS-A program since its inception and before. For example, he worked on the Joint Surveillance Target Attack Radar System (J-STARS) system from 1997 through 2001, the airborne ground surveillance, battle management, and command and control aircraft. He worked for four different contractors at Fort Monmouth, New Jersey, and Aberdeen Proving Ground before becoming a federal employee in January.

As a member of the Army Acquisition Corps, his training includes reaching the status of a Level III Certified Acquisition Professional.

“I have a background in finance so cost estimating was a natural fit,” he explained. Eckert’s education is tailor-made to support his program analyst position. He has earned a Bachelor of Science in economics, a Master of Business Administration in finance, and a Master of Science in Management information systems.

Accomplished in numbers, one of Eckert’s hobbies is playing poker. “It’s all about math and the probability of a positive outcome.” He also enjoys watching Oakland Raiders professional football and New York Yankees baseball. “I’m also an Orioles fan, based on my geography, as long as they aren’t playing the Yankees” he quipped.

A summer of GEMS equals a future of opportunities

By **TRACIE DEAN**
U.S. Army Research Laboratory

Middle school students from across the region are being exposed to world-class laboratories and scientific experiments this summer during the U.S. Army Research Laboratory’s Gains in the Education of Mathematics and Science, or GEMS program.

GEMS is an Army-sponsored, summer enrichment program for middle and high school students designed to spark and build upon interests in science-based concepts through experiments and observations.

Through unique, interactive activities and workshops, intellectually-engaged students gain experience in research essential to careers in science, technology, engineering and math, more commonly referred to as STEM.

Every year, ARL opens its doors at Aberdeen Proving Ground, Adelphi, Maryland, and at White Sands Missile Range, New Mexico, for students to engage in STEM-related activities.

Dr. Debbie Conn, coordinator for ARL’s K-12 STEM outreach program at the Adelphi Laboratory Center, discussed the GEMS program curriculum and the

overall benefit for the number of students participating this summer.

“Our vision is to engage students in focused, innovative STEM activities that inspire them to pursue a STEM-based higher education. We structure our curriculum based on ARL’s mission and vision which includes incorporating aspects of current research and development projects taking place in and around the laboratory,” Conn said.

Throughout the summer, students learn practical, hands-on applications through unique interactive activities and workshops that covered team building; career exploration and resume writing; solar energy; photovoltaics; severe weather and meteorology; the impact of technology on Soldiers; cybersecurity and social networking; robotics; 3-D printing; hydrogen fuel cells; wireless radio; language translation and language technology.

“These STEM activities invite students to explore a variety of disciplines that impact our global society,” Conn added.

Among the most popular workshops was the series done with solar energy where students learned the significance of reusable energy and its future impact. The workshop included an introduction on how

Our vision is to engage students in focused, innovative STEM activities that inspire them to pursue a STEM-based higher education.

Dr. Debbie Conn
ARL STEM Outreach Coordinator at Adelphi



Photo by Jhi Scott, ARL
Near Peer Mentor Xavier Baruti assists Gains in the Education of Mathematics and Science students build a solar car during a renewable energy/solar activity.

to build solar-powered vehicles and how photons from the sun are used to power those vehicles.

Through GEMS, students have the opportunity to learn beyond the classroom setting. Small groups, led by near peer mentors, allowed students to dive in hands-on and learn deeper concepts about science and math.

Each week of the ARL GEMS program culminates with a closing ceremony where the students provided project reflections and presentations on the workshops they found most interesting. Family members, peers and mentors were invited to participate in the ceremony as an opportunity to celebrate the achievements of their GEMS scholars.

WORD OF THE WEEK

Ignominious

Pronounced: ig-nuh-min-ee-uh s
Part of Speech: Adjective

Definition:

1. Marked by or attended with ignominy; discreditable; humiliating;
2. Bearing or deserving ignominy; contemptible.

Use:

- The villagers were elated by the dragon’s ignominious decline and eventual death.
- At the sight of reinforcements, the traitors dropped their false bravado and made an ignominious retreat.

By **YVONNE JOHNSON**, APG News
Source(s): <http://www.oxforddictionaries.com>; <http://dictionary.reference.com>

ACRONYM OF THE WEEK

SOCCENT

Special Operations Command CENTCOM

The Special Operations Command Central, or SOCCENT, is a sub-unified command of the U.S. Central Command, known as USCENTCOM. SOCCENT is responsible for planning special operations throughout the USCENTCOM area of responsibility (AOR), planning and conducting peacetime joint/combined special operations training exercises, and orchestrating command and control of peacetime and wartime special operations as directed. The command is headquartered at MacDill Air Force Base in Tampa, Florida. SOCCENT FWD (formerly known as Combined Forces Special Operations Component Command) is located at Al Udeid in Qatar. The Command’s motto is Molon labe, which is Greek for “Come and take them”, reportedly said by King Leonidas I of Sparta before the Battle of Thermopylae in response to the Persian demand to surrender their weapons.

By **YVONNE JOHNSON**, APG News
Source(s): www.wikipedia.org

ECBC explores pathogen detection through open source website

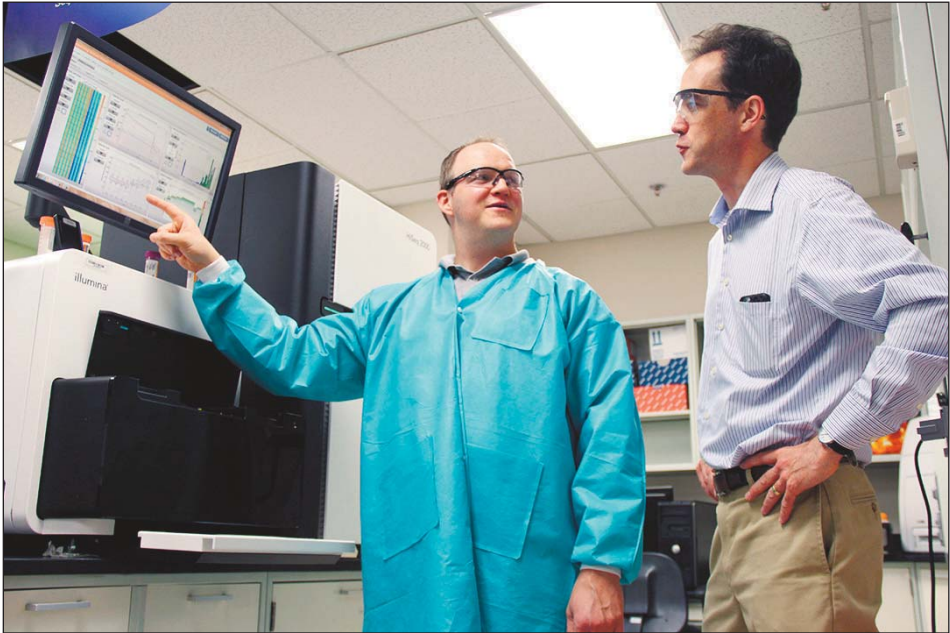
Edgewood Chemical Biological Center

A team of researchers at the Edgewood Chemical Biological Center, or ECBC, have developed a means for DOD labs across the globe to quickly obtain a genomic analysis of unknown and potentially hazardous biological samples without incurring the cost and risk of shipping them to a robust state-side lab.

Genomics is an area within genetics that concerns the sequencing and analysis of the complete set of DNA within a single cell of an organism, and ECBC has partnered with the U.S. Army Medical Research Institute for Infectious Diseases, known as USAMRIID, and Walter Reed Army Institute of Research, or WRAIR, to make genomic analysis more accessible through the development of a website called Pathosphere.org.

Currently, if samples of suspected biological weapons material cannot be matched to known biological agents, the United States and partner nations may consider using genomics to characterize the suspected samples. Because the pathogen experts who perform this work are located at laboratories such as ECBC, USAMRIID, or WRAIR, those samples would be collected at the overseas location and sequenced in the United States. The shipment of the sample to the experts and the subsequent analysis require time, money, significant subject matter expert labor hours, and the use of on-site hardware and technical support.

The development of Pathosphere removes the need for shipment and on-site analytical support, while still providing customized analysis on genomic datasets. Pathosphere has been deployed as a freely available resource and is used in OCONUS DOD labs.



Courtesy photo

Edgewood Chemical Biological Center researchers have developed a means for DOD labs across the globe to quickly obtain a genomic analysis of unknown biological samples.

ECBC began developing the concept behind Pathosphere in 2009. The idea was expanded by partnering with USAMRIID and WRAIR in response to requests from organizations such as the Defense Threat Reduction Agency Joint Science and Technology Office and the Joint Program Executive Office for Chemical and Biological Defense to find ways to streamline and cut the cost. ECBC, USAMRIID, and WRAIR along with Columbia University put its resources into creating a collaborative capability that is uniformly available.

“Pathogen detection within complex samples is a computationally expensive process, and doing it on-site requires servers, IT support, and software engi-

neers,” said Dr. Andy Kilianski, one of the collaborators on the project. “We are bringing that infrastructure to anyone who wants to do remote data analysis. And now we’ve made it publically available.”

How it works

Pathosphere takes the best-of-breed analysis from ECBC, USAMRIID, and WRAIR and makes these tools available to the global DOD labs via the internet. The DOD lab will upload the data sequence of an unknown biological sample to the Pathosphere.org website, which also supports interrupted uploads from data austere environments. The person uploading the data has full control over who sees the sequencing data

and results. After analysis time that ranges from a few minutes to a few hours, Pathosphere.org has the ability to put together an accurate report of what the pathogen is, and that report is emailed directly back to the user.

Putting the pathosphere to practice

Pathosphere.org is more than just a good idea – it works. ECBC demonstrated this by creating spiked pathogens within a common sample, and sequenced them with three different sequencing platforms, and then submitted these datasets to the Pathosphere website to determine if the site could correctly identify the pathogens present. The results generated by Pathosphere matched the results scientists produced on-site, demonstrating that Pathosphere has the similar capabilities to the currently deployed local NGS analysis tools.

Pathosphere.org also serves as an online community for innovation where scientists can share information and findings with each other. Occasionally, an uploaded sample will require that a subject matter expert is required for further analysis. In these instances Pathosphere.org can be used to elicit support from the online community fostering collaboration among colleagues across the globe.

Pathosphere.org is already supporting a number of critical projects, and ECBC scientists would like to continue to increase the abilities of the Pathosphere. The ECBC team published their findings from their work thus far in BMC Bioinformatics. Since publication, there has been a spike in new Pathosphere.org users, including scientists within the DOD and outside users from partner nations like Israel and other countries.



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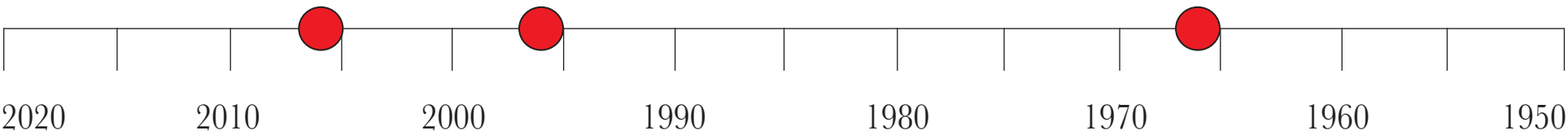
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This Week in APG History



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 1966.

By **YVONNE JOHNSON**, APG News



10 Years Ago: June 13, 2006

25 Years Ago: June 17, 1991

50 Years Ago: June 14, 1966



The Fido Explosives Detector and nine other innovations by U.S. Army Research, Development and Engineering Command organizations win the top 10 Army Greatest Inventions of 2005 Soldiers Choice awards.



Charles Schunter of the Directorate of Engineering and Housing checks grave markers in the Edgewood Cemetery for cleaning or repair needs.



A Soldier wears protective padding to participate in the U.S. Army Human Engineering Laboratory study measuring the effects of stress on a rifleman.

New capabilities improve intel gathering

By **BOB DIMICHELE**
DCGS-A

Fielding efforts for the Army’s Distributed Command Ground System’s new capabilities are moving forward with the approval of a Conditional Software Materiel Release in June.

The Distributed Command Ground System-Army, also known as DCGS-A, is actually a family of systems that combines all intelligence software and hardware capabilities within the service into one program with the ability to process data and disseminate intelligence, surveillance and reconnaissance information about the threat, weather, and terrain to all echelons.

“DCGS-A helps the intelligence community analyst provide timely, actionable intelligence to the decision maker and provides vastly improved situational awareness,” said Lt. Col. Donald L. Burton, the product manager for DCGS-A’s fielding of Increment 1 Release 2. The intelligence analysis and fusion systems improve the commanders’ ability to visualize, describe, and direct actions on the battlefield, he explained. DCGS-A collects, processes, and exploits data and then disseminates intelligence across all echelons for Soldiers to develop situational awareness and strategies to accomplish their mission.

The Conditional Software Materiel Release is part of the process that allows the Program Management, or PM, Office to field incremental improvements to the DCGS-A system, addressing Soldier feedback about ease of use, training, and reliability.

The PM has now fielded the new capabilities to and trained Soldiers of the 1st Armored Division’s Analysis and Control Element, 1st Brigade Combat Team, and its Division Artillery, as well as elements of the 20th CBRNECommand, and the 108th Air Defense Artillery Brigade of the XVIIIth Airborne Corps. The fielding priority is now shifting to units deploying to theater.

Lt. Col. Blue Huber, Division G-2 of the 1st Armored Division, said that as part of the fielding, “many of our hard drives and servers are replaced with bigger, faster, and more capable versions that accommodate the increased power and reach of the newer software.”

He said the ease of use has gotten better with this iteration.

“Everything has gotten much better. When you get comfortable with it, that’s when the system starts to shine.”

Huber said it will be easier for his Soldiers to maintain proficiency with those enhancements to software and computing power. The upgrades also allow his Soldiers to gain access to additional databases at different clas-



sification levels and share information through different classification levels.

Training on it, he added, is only difficult when you simply put away the system after an exercise and don’t use it again until the next exercise.

“My Soldiers only use DCGS-A. So, we don’t go through the periods of relearning capabilities over and over after each training event or exercise because we treat every day as training.”

DCGS-A can provide tactical, operational, and theater-level commanders with about 700 intelligence-related data sources.

“The enhanced access, accuracy, and relevance of the intelligence, surveillance, and reconnaissance data provides commanders the information they need when they need it,” Burton said.

“It’s designed to go through all the intel sources available to the division without struggle,” Huber said. “It helps us process data that we use to generate information and knowledge which allows us to anticipate enemy actions and commander decisions to help put him at the right place, at the right time, and in the right posture to ensure mission success. The new DCGS-A streamlines data management and helps us manage the data along the lines of our priorities.”

Burton summarized the new DCGS-A fielding by saying, “Our emphasis is on providing Soldiers at brigade and

(Left) 1st Lt. Dominic Lanzillotta of 4th Battalion, 17th Infantry Regiment, 1st Brigade Combat Team, 1st Armored Division, signals to Soldiers following him on a patrol in the village of Sarkari Bagh, Kandahar province in 2013. The new capabilities of the Distributed Common Ground System-Army provide timely, actionable intelligence and vastly improved situational awareness that enhances the ability to direct actions on the battlefield for commanders at all echelons.

Photo by Staff Sgt. Kristen Duus, 1st Stryker BCT, 1st Armored Division

(Below) Artillery Fire Direction Center personnel assigned to Bravo Battery, 4th Battalion, 27th Field Artillery Regiment, Division Artillery, 1st Armored Division, process live fire artillery missions to M777A2 Howitzer crews during Network Integration Evaluation (NIE) 15.1 in 2014. The new capabilities of the Distributed Common Ground System-Army can provide tactical, operation, and theater-level commanders with about 700 intel-related data sources.

U.S. Army photo by PEO C3T



below with a simpler, easier to use system that they can employ in austere, low-bandwidth and disconnected operating environments.

“We will field a tailorable DCGS-A solution that provides Soldiers the applications they need to quickly access and process actionable intelligence at the tactical level to impact the outcome of decisive engagements and enhance the rapid decision-making process.”

Huber summed up his experiences with the new DCGS-A capabilities when he said, “It seems the Army has

said ‘we have heard the complaints from the users and here is our shot at fixing them.’”

“It really has improved,” he emphasized.

DCGS-A is the Army component of the larger Defense Intelligence Information Enterprise, which is interoperable with other service DCGS programs, and is capable of supporting full-spectrum operations across the full range of military missions from counter-insurgency to conventional warfare to humanitarian missions.

Submit letters to the editor to usarmy.apg.imcom.mbx.apg-pao@mail.mil

Cold weather track puts vehicles to the test

By **MARK SCHAEUR**
ATEC

The U.S. Army Cold Regions Test Center, part of the U.S. Army Test and Evaluation Command, is the Department of Defense’s primary extreme cold test facility.

Located at Fort Greely, Alaska and tasked with testing virtually everything in the ground combat arsenal in a natural environment where winter lows drop far below zero, CRTC has just experienced its busiest test season in several years.

Among other things, the test center completed two rigorous tests of a new variant of the Stryker combat vehicle and a M109A7 Paladin self-propelled howitzer, both of which underwent testing at CRTC’s Mobility Test Complex. At the same time, however, the track also accommodated multiple customers from private industry, something it has done hosting commercial testing since its inception in 2004.

“When we have low military workload, being able to do commercial testing allows us to maintain equipment capabilities and the expertise needed for doing those things,” said Jeff Lipscomb, technical director.

“That way, whenever a military test comes, we’re not scrambling to figure out how to support it. To me, the biggest benefit of the commercial automotive workload is that it keeps us on the cutting edge of automotive testing.”

Hosting commercial testing also ensures that the test center’s mobile snow-making machines and other specialized track grooming equipment keep moving, which saves on maintenance costs in the long run. Further, continuous use means the equipment operators skill levels on the esoteric machines don’t degrade: for instance, in unskilled hands, a mobile track dryer could ruin the track’s asphalt while melting snow and ice.

Both military and commercial customers have access to a desirable facility that boasts a 1,000 foot by 800 foot lateral acceleration pad, a 200 foot by 1,200 foot skid pad, and grades ranging in steepness from 20 to 60 percent, a dramatic difference from the 6 percent or less grades an American motorist finds on an interstate highway in the lower 48 states. No taxpayer money is used to subsidize commercial testing, however.

“We make sure we are meeting their



Photo by Sebastian Saarloos, ATEC
Working amid freezing temperature in the dead of the Alaska winter, the Army’s newest howitzer is put through its paces at the Cold Regions Test Center, Alaska.

requirements without doing something with government money for private industry,” Lipscomb said. “Commercial customers pay the whole bill for everything they use and do here.”

The track, three and a quarter miles long, can accommodate as many as 35 vehicles simultaneously, though typically there are no more than 25 at a given time. Last winter was the track’s busiest season ever, hosting testing of both military and commercial vehicles simultaneously. Though military customers take priority, there has never been a scheduling conflict in more than a decade of operation.

“There are tracks in the lower 48 that offer more than we do, but they don’t offer the low temperatures in the early and late parts of the season,” said Dan Coakley, test track manager. “By the latter part of February, there is nowhere else to go except a foreign country,

which is a logistical nightmare and horribly expensive.”

Virtually every major commercial automotive manufacturer known to the American motorist has conducted testing at CRTC’s automotive track, though usually with specialized testing that doesn’t require running laps.

“They’ve done all of the distance stuff by the time they get here,” Coakley said. “They’re looking at short runs of 2,000 feet or less, braking, handling, traction control, emergency stops, cornering. The only time they’ll use the entire oval over and over again is if they are breaking in the tires: prior to testing a tire, they have to put 200 miles on it, which is the industry standard.”

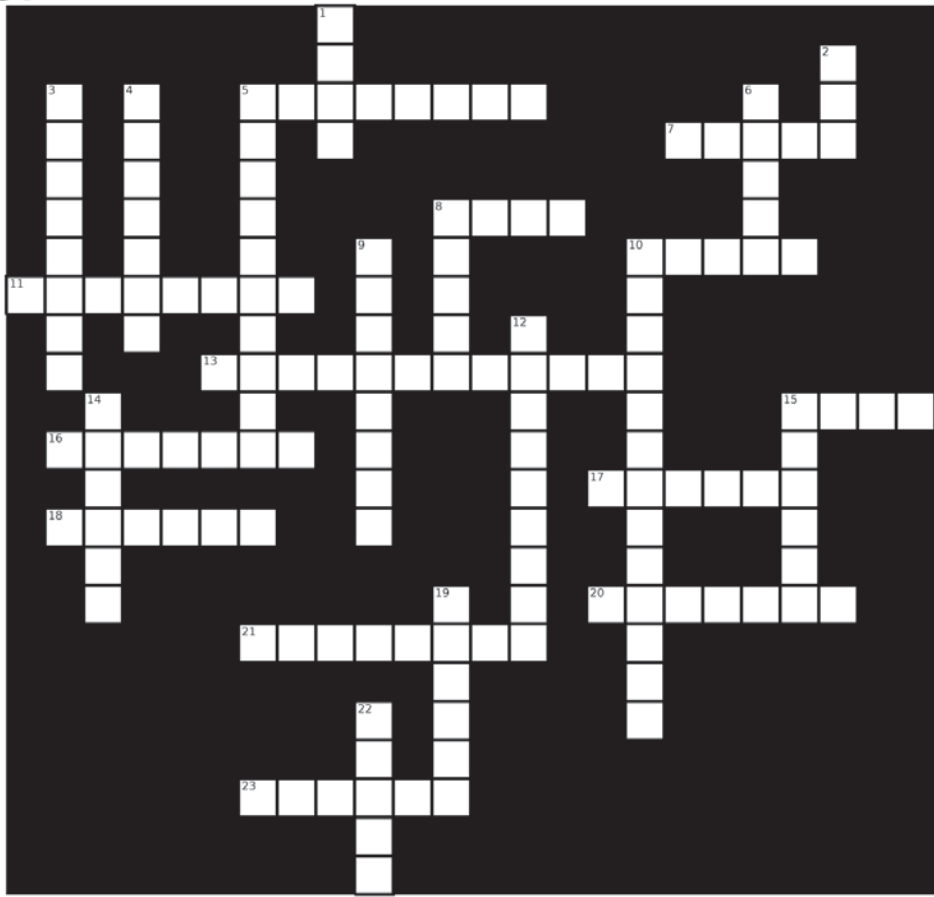
Commercial car companies are eager to maintain trade secrecy with their competitors, and CRTC is happy to accommodate this desire, going so far as to carry an opaque screen alongside

personnel if it becomes necessary to walk past another company’s activities. Also, scheduling time at the track is relatively simple.

“Generally, on our end we can be done in two weeks, but often the manufacturers have a long legal process on their end,” Coakley said.

Though summertime maintenance following CRTC’s extreme winters can be rigorous, the track itself was constructed with care to prevent frost heaves, a ruinous road condition in which thawing permafrost under a road surface causes the ground to soften and sink.

“The track was built to a standard of far more compaction than a highway,” Lipscomb said. “We wanted to make sure we didn’t get a frost heave. It was dug far down and re-filled with gravel to ensure there was no permafrost that would affect the track.”



The APG Crossword Summer-Themed Movies

There’s something about the summer months that makes Americans want to keep reliving them through film over and over again. Complete this trivia puzzle and bring back some of that nostalgia for “those summer nights.”

By **LAUREN FINNEGAN** and **RACHEL PONDER**, *APG News*

Across

5. David Wooderson, Matthew McConaughey’s character in “Dazed and _____” is well known for the line “Alright, Alright, Alright.”
7. The 1975 thriller “Jaws” is about how the inhabitants of a New England beach resort react to the presence of a giant, man-eating, great _____ shark.
8. The 1986 movie “Stand by Me,” about a writer who recounts a boyhood journey to find a

- dead body, was based on Stephen King’s novella entitled “The _____.”
10. Lindsay Lohan played twins Hallie and _____ Parker in this remake of the 1961 film, “The Parent Trap.”
11. Camp _____ is the name of the fictional summer camp that was featured in the movie “Wet Hot American Summer.”
13. American President Thomas Whitmore gives a moving speech before civilian and military personnel go off to fight aliens who are trying

- to take over the world in the movie 1996 “_____ Day.”
15. “The Baby-Sitters Club,” was a movie about seven friends who decided to open a _____.
16. The 1980 scary movie “Friday the 13th” takes place in the fictional Camp _____ Lake.
17. Producer of the 1988 movie “The Great Outdoors” starring John Candy and Dave Aykroyd, set in a Wisconsin lake resort.
18. In the 1983 comedy “Vacation” the Griswold family travels cross country to _____ World, a fictional amusement park in California.
20. Elijah Wood stars in this movie about a boy and his friendship with a dolphin.
21. In “Weekend at Bernie’s,” two men bring their dead boss to his vacation home in this summer destination.
23. This is the name of the dolphin that has to learn to swim without a tail in the movie “Dolphin Tale.”

Down

1. While filming the movie “The Last _____,” based on a novel by Nicholas Sparks, actors Miley Cyrus and Liam Hemsworth became a couple.
2. He directed “Brokeback Mountain,” a movie about summer love between two cowboys.
3. In the movie, “500 Days of Summer,” Tom, played by Joseph Gordon-Levitt writes _____ cards for a living.
4. In the movie “Super 8,” a group of kids are making a movie about this when they witness a train crash.
5. The 1973 film, “American Graffiti,” about the last night of summer for a group of high school friends, takes place in what state.
6. “Now and Then,” a story about four friends who revisit their most memorable summer, stars this actress who also played Wednesday Addams in the remake of the “Addam’s Family.”
8. Director of the 1966 documentary “The Endless Summer” about surfers who travel the world searching for the perfect wave.

9. Gerald, a main character in the movie, “Heavyweights,” is assigned to this cabin when he first gets to camp.
10. Title of the 2009 movie directed by Greg Mottola and starring Jesse Eisenberg and Kristen Stewart that is set in an amusement park.
12. Polpettes is the Italian word for the title of this movie starring Bill Murray as camp counselor Tripper Harrison.
14. A live production of this quintessential story about summer love set at Rydell High recently premiered on FOX.
15. In the 1987 movie “Dirty Dancing,” set at a resort in the Catskill Mountains, Frances “Baby” Houseman, played by Jennifer Grey, falls in love with the camp’s dance instructor, Johnny _____, played by Patrick Swayze.
19. This type of animal was responsible for the downfall of Carl Spackler, Bill Murray’s character, in the 1980 comedy “Caddyshack.”
22. “The Way, Way Back,” is about a boy named Duncan who gets a summer job at this type of park.

Think you solved last week’s puzzle?
Check out the solution below

Solution to the July 7 puzzle



Software eases complex decontamination issue

Continued from Page B1

we optimized the surface chemistry of the material for a broad range of agents,” said Greg Peterson of the CBR Filtration Branch.

Working with the Defense Threat Reduction Agency’s Joint Science and Technology Office, the research team developed a new concept of operations for decontamination. In order to be able to apply it to combat vehicles, the Decontamination Sciences Branch researchers had to develop the decontamination solution to be sprayable and able to stick to horizontal and vertical vehicle surfaces.

“One of the challenges of the formulation effort was to find a suitable carrier liquid to deliver the zirconium hydroxide material; a carrier that would be readily available in the field,” said Matt Shue, branch chief of ECBC’s Decontamination Sciences Branch. “That led us to options including water and kerosene in the form of JP8 aviation fuel. These are better options than other low flashpoint solvents that would be extremely flammable.”

The next step was to find just the right combination of components including kerosene and water combined with the zirconium hydroxide. The team had to maximize its effectiveness on a number of different military vehicle surfaces, and also to maximize the types of chemical agents it could effectively decontaminate.

Using the traditional method of painstakingly trying every possible combination of kerosene and water plus two variations of the zirconium hydroxide, the team would have had to evaluate at least 5,100 separate samples. This would take many

months and cost more money than the research effort could support. The solution they came up with was to use a state-of-the-art experimental design software program that builds a customized, highly efficient experimental design. Using it for their research, the team found that as few as 300 samples could generate the information required to get the answers they needed.

“The software package we used has been used very successfully by semiconductor manufacturers to optimize their chips, engineering firms to improve their industrial processes, and pharmaceutical companies to perform clinical trials more efficiently,” said Jay Davies, an ECBC research physicist and member of the research team.

When faced with their complex experimental scenario, developing a decontaminant formulation for use with multiple chemical agents on multiple surfaces, Davies applied the software’s advanced, proprietorial algorithm. The algorithm alters the experimental design to fit the problem rather than forcing the researcher to alter the problem to fit an “off-the-shelf” design. This enables the researchers to maximize the information obtained from a much smaller number of experimental samples.

“The custom experimental design is highly efficient because it is really a series of experiments compressed together into a super compact form where each sample is simultaneously providing information to answer many research questions in contrast to the traditional method where each sample can only provide information for a single research question,” said Davies.

“For example, it includes experiments to measure the effectiveness of the zirconium hydroxide, kerosene, and water mixture at first a high amount of water then a low amount of water, then the same thing is repeated for kerosene,” said Davies. “When we inputted the results into the software for analysis, it generated a statistical prediction curve going from the lowest amount of water we tried to the highest amount of water. It did the same for kerosene, so the software, in effect, filled in everything in the middle for both water and kerosene showing us how effectively the mixture would decontaminate chemical agent at every point along the curve.”

That substituted for a long, painstaking series of experiments in which the team members would have to first gradually increase the amount of water, then kerosene to see how well each gradation of change worked as a decontaminant.

Arriving at an efficient experimental design was essential to the research team. Not only would they have had to test each of these gradations of both water and kerosene, but they would have had to do the entire experimental series with two types of decontamination powder, type-B powder and type-C powder.

Another complication is that they needed to see how the decontamination formulations work against each of three types of chemical agents they were concerned with; VX nerve agent, soman, and mustard agent. Additionally, the team wanted to determine which one of these many possible formulations would best work on all three chemical agents. Then there was the

additional experimental variables of the amount of time each of the three types of agents sat on each of four types of vehicle surfaces, whether the exposed surface was oriented vertically or horizontally, and the amount of time each of the decontamination formulations was applied to the contaminated part of the surface.

The number of combinations to be tested quickly becomes dizzying. The researchers had to account for the interaction effects of all these possible combinations of water and kerosene in type-B and type-C powder. At certain ratios, the water-kerosene combination could actually interfere with each other in either type-B or type-C powder, or both, reducing its effectiveness as a decontaminant.

“In the end, the software enabled us to perform a workable experimental design that would find the best formulation of water, kerosene and the variant of decon powder, B or C, for each one of the three chemical agents we tested, plus the best formulation for a three-in-one agent decontamination solution,” said Joseph Myers, an ECBC chemist and member of the research team. “And, we got to this result with only a small fraction of the effort that would have been required without this software.”

As the decontamination formula makes its way through the acquisition process, the team of ECBC researchers will study the effect of adding green, black, or tan pigments to change the color of the decontaminant to maintain the vehicles’ camouflage. The goal, said Shue, “is to continue maturing this technology and continuously increase its value to Soldiers”.

Navigation solution starts with flip-book concept

Continued from Page B1

data to track a person’s relative position and movement over a given trajectory or path, Bickford said.

Vision-aided navigation is part of the Army’s overarching goal to provide uninterrupted PNT capabilities to Soldiers. While still in the early development phase, CERDEC plans to transition vision-aided navigation solutions to the Army’s Direct Reporting Program Manager Positioning, Navigation and Timing, which was chartered in 2015 to address PNT capabilities across Army portfolios.

“The availability of GPS on the battlefield has significantly enhanced Soldiers’ navigational capabilities, but it is susceptible to interference,” said Christopher Manning, acting director for CERDEC CP&ID. “As the Army’s R&D lead for Soldier and ground platform PNT needs, we’re using our science and technology investments to support PM PNT by investigating and developing alternate navigation solutions that will address the PNT challenges our Soldiers face in various tactical environments.”

A monocular, or single camera, acts as the foundation to the vision-aided navigation system. It captures rotation and translation but not depth; in other words, it shows how much a person rotated and moved along a path, but not how far away he or she is. The “aided” component incorporates inertial measurement units, or IMUs, which are comprised of sensors such as gyroscopes and accelerometers; when properly combined with the camera, they provide motion and direction information simultaneously.

“IMUs allow us to determine approx-

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Gary Katulka
CERDEC engineer

imately how the camera is moving; thus, the motion of the camera can be mathematically compared with the motion detected from features tracked visibly by the camera,” CERDEC engineer Gary Katulka said. “With calibrated cameras, quality IMUs, a well-tuned navigation algorithm and other supporting components, a person equipped with a vision-aiding navigation system can achieve GPS-like navigational performance.”

Over time, errors from the IMUs will accumulate and cause some sensor “drift,” but data from the camera serves to limit these errors for a more accurate combined-sensors navigation solution known as sensor fusion, Katulka said.

The first iteration of vision-aided navigation will likely be vehicle-mounted. CERDEC tested this concept by inserting a system into a standard vehicle and driving along a major highway. The camera’s feature detection capability accurately captured everything in its path -- other cars, exit signs, and trees -- even at high speeds.

“The system understood that the cars ahead of us were going nearly the same speed as we were because those cars never appeared to change in size,” Bick-

ford said.

Two-camera vision-aided navigation, also known as “stereo,” could be a viable option as long as Size, Weight, Power and Cost, or SWAP-C, are not a factor. Objects appear to shift with the two camera solution as it operates similarly to a person repeatedly opening one eye while closing the other.

“That shift tells you how far things are away from you; whereas an object will appear to shift more if it closer to you, but if you look into the distance, the shift yields very little movement,” Bickford said. “This also gives us the required distance or depth information.”

The Army’s science and technology community is investigating approaches for multi-purpose cameras, including vision-aided navigation. With that in mind, CERDEC CP&ID is teaming with additional organizations, including its sister organization, the Night Vision and Electronic Sensors Directorate, to leverage existing technologies such as its thermal imaging camera, which will allow vision-aided navigation in less optimal and low-light situations. In the future, vision-aided navigation systems could be integrated with Soldier-wearable devices.

During tests in urban environments, CERDEC’s Soldier-mounted prototype allowed the user to stay on nearly the exact trajectory to the path generated from GPS and other sources.

“What is working in our favor is that we are leveraging commercial technologies in today’s cellphones and cameras, which are getting smaller, cheaper and are nearing the visual acuity of the human eye,” Katulka said. “These developments have made vision-aided navigation technology for military applications very viable and quite attractive.”

Ultimately, the goal for any navigation system is to allow commanders and Soldiers to share PNT information up and down the command chain. The overarching goal is to aggregate emerging PNT systems in a cost effective manner to provide a comprehensive capability that will mitigate impacts during to GPS-denied situations.

“A battalion could have several PNT capabilities sprinkled throughout the battlefield or flying above that, when extrapolated, assist the entire group on the battlefield,” Katulka said. “Assured PNT makes expeditionary mission command much more efficient and thus a possible game changer.”

By combining multiple inertial components with basic camera technologies, CERDEC is elevating an elementary motion-detection concept into a cutting-edge solution, Katulka said.

“When we were kids, we made stop-motion flip books to create homemade animation,” Katulka said. “I would never have guessed then that the same concept could be used today to help our Soldiers navigate.”



Did You Know ?

This week marks 139 years since the Great Railroad Strike of 1877

The Great Railroad Strike of 1877, sometimes referred to as the Great Upheaval, began July 14 in Martinsburg, West Virginia after the Baltimore & Ohio Railroad, known as B&O, cut wages for the third time in a year. The strike lasted 45 days and included rioting in affected cities like New York, Pittsburgh and Baltimore, and even spread into Illinois and Missouri.

At the time, the workers were not represented by labor unions. Disruption was widespread and at its height, the strikes were supported by about 100,000 workers. Angry, rock-throwing workers clashed with state sponsored militias, and fires ran rampant. An estimated 100 people were killed across the nation.

In Maryland, Governor John Carroll ordered the 5th and 6th National Guard regiments to put down the strike, and workers attacked the militia. As the troops marched toward B&O's Camden Station, violent street battles erupted and the outnumbered troops fired on the attacking crowd, killing 10 and wounding 45. The rioters injured militiamen, damaged engines and train cars and burned portions of the train station. Order was restored when President Rutherford B. Hayes ordered federal troops into Baltimore.

In Pittsburgh, the site of the worst rioting, strikers set fires that razed 39 buildings and destroyed 104 locomotives and 1,245 freight and passenger cars. Holed up militia fought their way out of the city, killing more than 20

people. Again, federal troops were called in to restore order after a month of fires and bloodshed.

The strike raised awareness about the grievances of railroad workers and prompted B&O to establish an Employees Relief Association; unions were established soon after.

In 2003 the Baltimore and Ohio Railroad Martinsburg Shops, where the strike began, were declared a National Historic Landmark. In 2013, a historical marker commemorating the event was placed in Baltimore, by the Maryland Historical Trust and Maryland State Highway Administration.

By **YVONNE JOHNSON**, APG News

Source(s): www.wikipedia.org

Maryland Sixth Regiment fighting its way through Baltimore. This engraving appeared on the front cover of "Harper's Weekly, Journal of Civilization," Saturday, Aug. 11, 1877.

