

COVID-19: Unique Army Lab Answers the Nation's Call

By Caree Vander Linden, USAMRIID PAO

Since 1969, the U.S. Army Medical Research Institute of Infectious Diseases, or USAMRIID, has responded to disease outbreaks at home and around the globe with capabilities and expertise unmatched within the Department of Defense. USAMRIID's scientific accomplishments have steadily contributed to the development of medical countermeasures for protecting military and public health. Over the years, USAMRIID has shown itself to be uniquely suited to answer the nation's call, and this year—marked by the COVID-19 pandemic—is no exception.

As a subordinate element of the U.S. Army Medical

Research and Development Command, USAMRIID, located at Fort Detrick, Maryland, is one of several laboratories contributing to the whole-of-government approach to combating COVID-19. In February 2020, USAMRIID scientists received a sample of the novel coronavirus, dubbed Severe Acute Respiratory Syndrome Coronavirus-2, or SARS-CoV-2, from the Centers for Disease Control and Prevention. It came from a patient in Washington State, one of the first COVID-19 cases identified in the United States. USAMRIID's initial step was to grow the virus and prepare a master stock for use in testing diagnostics, vaccines and treatments.

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Ms. Jeanean Ghering and Mr. Chris Jensen demonstrate a "sham" aerosol of SARS-CoV-2 in a Biosafety Level 3 laboratory at the U.S. Army Medical Research Institute of Infectious Diseases, Fort Detrick, Md. Technology invented at USAMRIID allows researchers to model the course of respiratory diseases, such as COVID-19, that pose a threat to U.S. service members. [Photo by Ondraya Frick, USAMRIID]

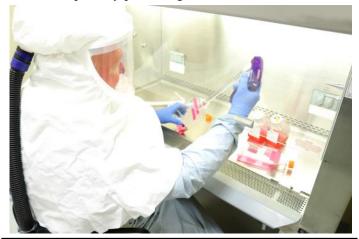
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"We also worked to characterize the virus, meaning that we receptor used by SARS-CoV-2 to enter human cells, looked closely at its structure and properties, and how it's related to viruses that were already known," said Colonel E. Darrin Cox, the Institute's commander. Building on that knowledge, as well as their experience with SARS-CoV-1 in 2003 and Middle East Respiratory Syndrome, or MERS, in 2014, USAMRIID scientists next turned their attention to developing animal models that represent the disease course of COVID-19 in humans.

Building Animal Models

Animal model development is essential to the process of getting a medical product licensed for human use, and it is one of USAMRIID's core capabilities. For example, the Institute performed the critical animal studies of the Ebola virus vaccine produced by Merck that received U.S. Food and Drug Administration, or FDA, approval in 2019. USAMRIID has Biosafety Level-3 and BSL-4 containment laboratories that enable safe study of high-consequence pathogens, including SARS-CoV-2 (a BSL-3 agent) and Ebola virus (handled at BSL-4). In addition, thanks to unique aerosol technology invented at USAMRIID, the Institute can accurately model the course of respiratory diseases, such as COVID-19, that pose a threat to U.S. Service Members.

Small animal models, like rodents, allow for early investigation of the disease process and preliminary testing of potential vaccines and treatments. This work builds the foundation for additional studies and helps to determine which products should advance for further testing. According to Cox, USAMRIID has developed two small animal models, the ACE2 mouse and the Syrian hamster, that look especially promising. ACE2 mice have the same



Mr. Brian Kearney harvests samples of coronavirus in a Biosafety Level 3 laboratory at the U.S. Army Medical Research Institute of Infectious Diseases, Fort Detrick, Maryland. USAMRIID and its research partners use virus stock to develop models of infection for coronavirus, as well as diagnostic tests, vaccines and therapeutics.

Photo credit William F. Discher, USAMRIID

making them a suitable model of infection, and Syrian hamsters appear to show signs of developing protective immunity when re-exposed to the virus. Importantly, both the mice and the hamsters develop clinical signs of disease that are similar to those seen in human patients.

Large animal models, such as nonhuman primates, or NHPS, are most predictive of human disease. When a vaccine or therapeutic shows promise in a small animal model, the next step is to test it in NHPS, collecting data that can support clinical trials in humans and eventually lead to FDA licensure. USAMRIID has developed two NHP species, the rhesus macaque and the cynomolgus macaque, as models for evaluating medical countermeasures to SARS-CoV-2.

"USAMRIID's unique ability to conduct multiple aerosol exposure studies enables down-selection of the most promising vaccines and treatments from among numerous potential candidates," added Cox. That aerosol technology also supports research to answer the key question of how well—and for how long—SARS-CoV-2 can survive in the air.

Assessing the Risk

USAMRIID scientists evaluated three coronaviruses— SARS-CoV-1. MERS, and the novel coronavirus—to assess their ability to remain infectious in an aerosol form. Experiments took place at USAMRIID and three other aerobiology laboratories: Tulane University in New Orleans, the National Institutes of Health-Integrated Research Facility at Fort Detrick, and the University of Pittsburgh.

Their findings indicate that SARS-CoV-2 maintains infectivity in small-particle aerosol much longer than either SARS-CoV-1 or MERS-CoV. They also suggest that people infected with the novel coronavirus may produce viral aerosols that can remain infectious for long periods following coughing, shedding and airborne transport of droplets.

USAMRIID is also evaluating several environmental parameters of virus stability on military uniforms, skin and paper currency. Stability testing like this helps to evaluate fomite transmission of the virus to decrease or prevent infection among service members and the public. Fomites are inanimate objects (like doorknobs, keyboards, phones, and elevator buttons) that can become contaminated and serve as a mechanism for virus transfer between people.

Results so far indicate that SARS-CoV-2 remains stable on some surfaces for as long as 96 hours at 4 degrees Celsius (39.2 degrees Fahrenheit). It is stable for up to 24 hours on steel and paper currency at room temperature, and up to 96 hours on skin.

However, heat appears to significantly decrease the virus's ability to survive at room temperature.

Refining Diagnostic Tests

Another core element of USAMRIID's mission is developing assays, or tests, to identify biological agents in clinical samples like blood serum or saliva. Some of these tests can also be used with environmental samples, such as soil. The Institute is working with several partner agencies to support assay development for the COVID-19 response. In general, confirmatory tests show that the virus is present in a sample; clearance tests determine whether a patient who once had the virus has cleared it from the body; and antibody tests identify specific proteins in the blood that were made in response to infection with the virus.

USAMRIID is supporting requests to perform diagnostic analysis on samples from active-duty U.S. service members, according to Cox. Specifically, the Institute is testing samples from Army and Navy personnel, stationed in the U.S. and overseas, who had "persistent positive" SARS-CoV-2 test results after 14 days of isolation. This analysis will aid in determining return to duty status for those personnel.

Samples are first analyzed using the RT-PCR assay, available under an Emergency Use Authorization from the FDA. (PCR is shorthand for polymerase chain reaction, a procedure commonly used to "amplify" a small segment of genetic material so that it can produce many more copies of itself for laboratory analysis.) Those with a positive result are processed for virus isolation testing (in cell culture), which takes an additional 7-10 days, to tell if the sample contains any live virus. The final step is serology testing using serum samples to determine the presence of SARS-CoV-2 antibodies.

USAMRIID is also collaborating with the Army Public Health Center to evaluate techniques for surveillance testing. This effort will identify methods for screening large populations of service members while minimizing the impact on supply chains. One approach is lateral flow immunodiagnostics, which are simple to use and similar to the test strips commonly seen in over-the-counter pregnancy screening kits. Another technique, pooled testing, would involve combining swab samples from several individuals and testing them together, using highly sensitive molecular detection methods. If the pool result is positive, the samples are then tested individually. When the infection rate is low and only a few people are infected, pooled testing can significantly expand the testing capacity of the existing laboratory infrastructure and reduce the strain on testing resources.

"Improving the speed, capacity, and portability of COVID-19 testing directly supports the operational readiness of U.S. forces," added Cox.

Screening Potential Therapies

In addition to improving diagnostics, USAMRIID is playing a key role in the search for therapeutics to treat COVID-19. One avenue is to screen libraries of existing chemical compounds—the key ingredients that make up drugs—for potential antiviral activity. The Institute has hundreds of cooperative agreements with industry, academic and government laboratories, and works with its partners to identify and test compounds that look promising. USAMRIID can screen thousands of compounds at a time, if necessary, using a high-throughput system that is rapid and cost-effective.

"In fact, this is the very same system used by USAMRIID to identify remdesivir as a potential therapeutic for Ebola virus back in 2016," said Cox. Remdesivir, a drug invented by Gilead Sciences and tested extensively at USAMRIID, is now available under an investigational protocol to treat Department of Defense personnel exposed to COVID-19. It is also being evaluated against the novel coronavirus in worldwide clinical trials.

Convalescent plasma from recovered COVID-19 patients is another potential treatment option. Recent studies at USAMRIID using plasma from New York donors suggest a strong link between levels of antibody, a protective protein, and the ability of the plasma to neutralize the virus to keep it from replicating. These findings are supported by analysis of additional samples obtained from donors in Texas. Developing a laboratory test for screening convalescent plasma, therefore, would allow scientists to rapidly identify "good donors" with high levels of SARS-CoV-2 antibody. Selecting plasma from these donors would be preferable in developing a clinical product.

Monoclonal antibodies—proteins that can help to neutralize the virus—are a third approach to developing COVID-19 treatments. These antibodies can be administered before exposure to prevent infection, or after exposure to ward off disease. In collaboration with industry partners, USAMRIID has tested hundreds of antibodies for neutralizing activity against SARS-CoV-2 and identified several promising candidates. Two antibodies that demonstrated potent neutralizing activity in cells were further tested in groups of healthy and immune-suppressed hamsters. Both groups showed clear evidence of protection when the antibodies were administered pre-exposure, according to Cox. A similar effect in humans could protect high-risk and immune-suppressed populations from COVID-19. USAMRIID is continuing to press forward on this critical effort.

Behind the Scenes

Despite the urgency of the COVID-19 pandemic and the related increase in operational tempo, Cox says USAMRIID's response is all in a day's work for his team of 700 military, civilian and contract personnel. Their

focus is, and always has been, on protecting U.S. Service Members—but their research pays dividends for public health and global health as well.

"Because of USAMRIID's unique expertise and facilities, we typically play a key role in any emerging disease outbreak—whether it be coronavirus, Ebola virus, or something we haven't even discovered yet," he commented. "This is exactly why USAMRIID is here—to study these agents with a focus on prevention, detection, and treatment."

And while the Institute may not always garner the biggest headlines during a crisis like this one, it's safe to assume that USAMRIID will still be working behind the scenes to deliver the medical solutions the Nation needs.

2020 Fort Detrick Intramural Softball Ends

Don Vierra, Intramural Sports Director

The 2020 Fort Detrick Intramural Softball League recently concluded its season with a championship game being played on August 27. The season with six teams competing for the league championship trophy as well as year-long bragging rights of who was the best team on Fort Detrick. The teams competing were US Army Garrison Ft. Detrick USAG, US Army Medical Research Institute of Infectious Disease Warriors, 53rd Archangels, 302nd Out of the Park, NSF Thurmonsters and Weird Science.

The championship game would pit the regular season champions USAMRIID Warriors (18-2) against the regular season runner-up Ft. Detrick USAG (16-4) team. After last competing in 2012, this season marked the successful return of a Garrison team into the league. These two teams split the four regular season games played between them at two games apiece. The championship game began with USAG jumping out to a quick 3-0 lead after the first inning. The second inning proved to be the deciding point of the game with the Warriors storming back sending sixteen batters to the plate with the first twelve reaching base and scoring, resulting in a 12-3 Warriors lead. The Warriors would tack on 10 more runs while the Garrison could only manage to add four runs resulting in a final score of 22-7 in favor of the Warriors.

Unlike previous seasons, this year COVID-19 brought on unique challenges on how to conduct games. Guidelines were established such as physical distancing, wearing masks or face coverings, and limiting personnel in each dugout were put in place. These guidelines proved not to be a hindrance to actually playing the games. The most significant challenge proved to be to a statewide critical shortage of available umpires. This meant games were played without certified softball umpires. As a result, coaches were

tasked with determining the result of close plays. If the coaches could not come to an agreement, there was a replay.

This season brought back a sense of normalcy. It provided excitement, fun, camaraderie and challenges. But we now know, the USAMRIID Warriors are the best softball team on Fort Detrick.... at least for one year. Job well done.



The USAMRIID Warriors pose with their 2020 Fort Detrick Intramural Softball League Championship Trophy after they defeated Ft. Detrick USAG with a final score of 22-7.

Photo by Don Vierra, DFMWR

Vision of Prayer Garden Comes To Life For Local Eagle Scout

By Lanessa Hill, USAG Public Affairs

A dedication ceremony for a prayer garden was held very active with the scouts; they have 3 other chilat the Fort Detrick Chapel Sept. 20. Logan Henson completed his Eagle Scout Project to create the space giving worshipers and community members a serene location to pray in solitude.

"This project was the vision of the Eagle Scout (Logan), for his project, but this area will be used for groups doing their Bible Studies, people from the chapel using it for meditation and prayer, and for the local community to use as a place of rest, conversation with friends and family, sitting to enjoy God's creation," says Fort Detrick Chaplain, Lt. Col. Gregory Jackson.

Henson is a member of the Boy Scouts of America, Troop 274 in Frederick, Maryland. His family is

dren involved with the Boy Scouts of America. Materials for the prayer garden were donated by a local vendor to troop 274. Henson and others from his troop donated the materials and their labor to complete the project.

Chaplain Jackson is thrilled about the new garden.

"This area is a place of strength, healing, and growth. Strength, to pray in solitude for the answers to help us through life. Healing, as a place you can go with a friend or family to discuss matters that need to be resolved in the quietness of this space. And growth, by providing groups the opportunity to read and learn the biblical truths in scripture," says Jackson.



Logan Henderson of Boy Scout Troop 274 stands with Brig. Gen. Michael Talley, Commanding General U.S. Army Medical Research and Development Command and Fort Detrick, Col. Dexter Nunnally, Fort Detrick Garrison Commander and Chaplain Gregory Jackson at a Prayer Garden Dedication Ceremony on Sept. 20, 2020. The garden was part of an Eagle Scout project.

Photo complimentary of the Fort Detrick Chapel.

AMLC Commander Pins on First Star



Army Medical Logistics Command Commander Brig. Gen. Michael Lalor, center, receives his one-star shoulder boards from Army Materiel Command Commanding Gen. Ed Daly, left, and his wife, Michelle Lalor, during a promotion ceremony at Fort Detrick, Maryland, on Sept. 11, 2020. (U.S. Army photo by Ellen Crown/Released)

By Ellen Crown, Army Medical Logistics Command Public Affairs

U.S. Army Medical Logistics Command leaders and staff gathered in ceremony on Sept. 11 to celebrate the promotion of their commander, Col. Michael B. Lalor, to the rank of brigadier general.

After pinning on his new rank, Brig. Gen. Lalor took to the podium and reminded attendees, both in person and virtual, that this achievement was a "team win."

"This ceremony is about us. It's not about me. It was never about me. And it will never be about me. This moment – this day – belongs to all of you," he said. "I have the great honor of leading America's best – its sons and daughters, Soldiers, department of the Army civilians and contract workforce. And there is no bigger honor than to serve others, and I am glad to do it."

Gen. Ed Daly, commanding general of Army Materiel Command, presided over the promotion ceremony and spoke of Lalor's experience and character.

"His entire career, he has proven himself to be a capable and tremendous leader, staff officer and commander who can deliver readiness to the tactical points of contact in support of sustainment warfighting," he said. "Make no mistake about it, he is a warrior and he is a Soldier – and he sets the example in both."

Lalor, who has more than 25 years of service in the Army, has served as AMLC commander since its activation nearly one year ago on Sept. 17, 2019.

Headquartered at Fort Detrick, AMLC oversees an enterprise of worldwide organizations focused on distributing and sustaining medical materiel for the operational Army and Joint Forces. AMLC also centrally manages and integrates medical Army prepositioned stocks and other contingency programs.

While designed to enable readiness for warfighters in large-scale combat operations, AMLC has also played a critical role in the global fight against the COVID-19 pandemic. AMLC teams distributed personal protective equipment, supplies and medical devices to protect and enable

Soldiers in Europe and Asia.

AMLC staff also issued medical supplies for three Army hospital centers supporting New York and Washington states. The mission included support packages for the 531st Hospital Center from Fort Campbell, Kentucky, 627th Hospital Center from Fort Carson, Colorado, and 9th Hospital Center from Fort Hood, Texas, bolstering these units' capabilities to deliver health care support to locations hit hardest initially by COVID-19.

Lalor said the pandemic mission has provided the Army with a unique opportunity to test operational medical logistics – and every time, AMLC has delivered with speed and accuracy.

"I have always told my teams in my organizations to be ready, and now...We would be needed and that people needed to know that anywhere at any time, we would come running at a full sprint into the toughest battlefield," he said. "I always said the same thing: Send us."

USAMRDC Leads **DOD** Additive Manufacturing Effort to Produce 3D **Printed Swabs in response to the COVID-19 Crisis**

By: Daniel Patterson, Biomedical Engineer and Product Management Support, Warfighter Expeditionary Medicine and Treatment Project Management Office, U.S. Army Medical Materiel Development Activity

The U.S. Army Medical Research and Development Command assembled a team of experts to help Department of Defense additive manufacturers produce and procure medical materiel in response to equipment shortages in the wake of the COVID-19 health crisis. Led by the U.S. Army Medical Materiel Development Activity's Warfighter Expeditionary Medicine and Treatment Project Management Office, the team of experts, selfnamed the "USAMRDC Additive Manufacturing Working Group," works to ensure the rapid delivery of medical device development guidance to USAMRDC's partners. The group supports DOD stakeholders who, although unfamiliar with medical product development and U.S. Food and Drug Administration regulations, sought to respond quickly to the medical supply shortages within the DOD. The team determined that a whole-ofgovernment approach was needed to identify critical partners for the production, testing and regulatory submission required for medical devices.

Among its many efforts, the group is managing 3D printed nasopharyngeal swabs. A standard nasopharyngeal swab, similar in size to a coffee stirrer, is integral for providing diagnostic testing. Due to FDA's designation of it as a medical device, the 3D-printed swab must pass all of the necessary testing and quality assurance standards in design and manufacturing prior to use. The swab must be able to collect a mucus sample safely from the patient, prior to delivery to a testing laboratory for analysis.

With national supply shortages of

commercially available swabs, the **USAMRDC** Additive Manufacturing Working Group partnered with the DOD Organic Industrial Base to determine if there were existing capabilities within the government to produce an alternative. Fortunately, several organizations across the services were willing to utilize their 3D printers, along with designs from academic and industry partners, to respond to the swab shortages.

Since the group's establishment in early April, the USAMRDC has collaborated with offices of the Army, Navy, Marine Corps and Air Force to assist in The USAMRDC leverages internal exdeveloping a strategy to produce 3Dprinted swabs across multiple sites. Currently, agreements with the Dental College of Georgia at Augusta University, and the University of South Florida provide updated swab designs and clinical data that have been instrumental in driving forward the DOD's mission to up-scale efforts against COVID.

"Our partners at Portsmouth Naval Shipyard, U.S. Army Rock Island Arsenal, Marine Corps Systems Command and Navy's Fleet Readiness Center-South East are working with the USAMRDC to request FDA Enforcement Discretion for 3D-printed test swabs that can be distributed throughout the DOD in order to detect Service Members with COVID-19," said Edward Brown, product manager for the Warfighter Expeditionary Medicine and Treatment Project Management Office at the USAMMDA and member of the **USAMRDC** Additive Manufacturing Working Group. "This is helping to

ensure the DOD can continue to accomplish its mission in a safe and secure environment during the ongoing public health emergency."

"This Defense Health Agency, multiservice 'proof-of-concept' project builds upon the successful work of the Air Force's 59th Medical Wing, who through a collaboration with the **USAMRDC** Additive Manufacturing Working Group earlier this year, received Enforcement Discretion to produce and distribute 3D-printed swabs," he added.

pertise within its Office of Regulated Activities and Office of the Principal Assistant for Acquisition, as well as USAMMDA's Office of Research and Technology Applications and the Office of the Staff Judge Advocate to guide the DOD's Additive Manufacturing Community through the FDA process in order to ensure compliance with all FDA requirements prior to distribution and use of any medical equipment.

"Regulatory affairs is a gray zone that requires a lot of attention to detail, with the potential to change the entire course of a project," said Air Force Maj. Scott Baker, USAMRDC Regulatory Fellow. "The true collaboration across so many groups of people with varied expertise is the foundation of these successes, ensuring all the parts move together."



Army Gen. Edward M. Daly, commanding general of the Army Materiel Command, and Army Maj. Gen. Daniel G. Mitchell, commanding general of the U.S. Army Sustainment Command, discuss swab production during a visit to U.S. Army Rock Island Arsenal. The arsenal's leadership is working with the USAMRDC's Additive Manufacturing Working Group to request FDA Enforcement Discretion for 3D-printed test swabs that can be distributed throughout the DOD in order to detect Service Members with COVID-19. (Photo courtesy of Randl Besse, U.S. Army Rock Island Arsenal)

After production, it is necessary to test the swabs to ensure they meet performance standards. Again, partners within the DOD answered the call. Through an agreement with the Joint Program Executive Office for Chemical, Biological, Nuclear and Radiological Defense—Medical, the 3D-printed swabs will be analyzed for their compatibility with viral transport media and testing kits used to detect COVID -19.

To understand the mechanical properties, the U.S. Army Combat Capabilities Development Command—Solider Center was able to develop testing procedures to simulate swabbing a person's nasopharynx to ensure the swab would not break when being used. Having these capabilities readily available, with DOD experts in these analytical and testing areas, is the key to delivering a safe and effective product to the Service Member.

In the face of the pandemic, the team at Fort Detrick, Maryland, has responded quickly to deliver needed medical products. Using mechanisms such as Emergency Use Authorization, Public Law 115-92, and enforcement discretion requests, the USAMRDC is able to leverage its relationship with the FDA to expedite the approval process for swabs that are ready for submission. The Additive Manufacturing Working Group is working around the clock with the FDA to monitor, mitigate and combat COVID-19 through collaborative efforts with other federal partners, international regulators, medical product developers and manufacturers.

The FDA Sponsor's Representative from USAMRDC, Mark Paxton, commented on the professionalism of the working group and its members. "The team is made up of a varied group of persons with highly diversified expertise, which

across USAMRDC command elements. It has been an absolute pleasure to work with such an awesome team."

Outside of USAMRDC, the working group remains in constant communication with its partners to ensure success for the DOD.

"We should continue to solve problems the way the USAMRDC team has done for the COVID-19-related additive manufacturing efforts," said Joe Murphy, Portsmouth's Innovation Project superintendent. "They continue to be our guide through the uncharted territory of 3Dprinted medical devices, and without their help, there is no way we would be able to contribute 12,000 useable swabs per day to the DOD."

Robert Hunt, liaison for the Fleet Readiness Center Southeast, praised the group's medical guidance in working

allows them to perform with unprecedented collaboration with partners. "This collaboration has made me hopeful for future endeavors in working with any or all of the parties involved, because of how attentive and engaged the stakeholders have been," he said. "[Navy] Lt. Cmdr. Schonberg and Ed Brown have been amazing assets to lean on with whatever questions we have, providing a bit of paternal guidance in our medical equipment infancy."

> The USAMRDC Additive Manufacturing Working Group's whole-of-government approach to coordinate across the Army, Navy, Marine Corps and Air Force has been an unprecedented force multiplier to harness the unique capabilities of the organic industrial base with the medical acquisition community. Going forward, the lessons learned and the relationships codified will inform and enable the internal capabilities of the DOD to work – together – in response to future medical crises.

DPW Recognized for Outstanding Effort



Fort Detrick U.S. Army Garrison Commander, Col. Dexter Nunnally (right) and Garrison Command Sergeant Major, Command Sgt. Maj. Jason Gusman (left) present employees from the Directorate of Public Works with a Fort Detrick Coin on Sept. 16, 2020 for their tremendous job renovating The Warrior Zone in Building 1532. Contractors could not meet timelines so DPW stepped up and completed the job, saving the Garrison about \$100,000.

Profiles in Space: Space Soldier's immigrant story enriches Army's tapestry

By: Staff Sgt. Aaron Rognstad, U.S. Army Space and Missile Defense Command



Spc. Wolmy Louigene, network controller, Company A, 53rd Signal Battalion, Wideband Satellite Communications Operations Center, U.S. Army Satellite Operations Brigade, visits Gettysburg Military National Park for a morale event, Sept. 18, 2020. Louigene is the U.S. Army Space and Missile Defense Command 2020 Best Warrior Soldier.

Photo By Staff Sgt. Aaron Rognstad

The United States was built by immigrants who invested their blood, sweat and tears to make a better life for themselves and their families.

Soldiers like Spc. Wolmy Louigene, network controller, Company A, 53rd Signal Battalion, Wideband Satellite Communications Operations Center, U.S. Army Satellite Operations Brigade, and his family are part of this rich immigrant tapestry.

Louigene, born on Halloween 1990 in Port de Paix, Haiti, a city known for having the first ever mass slave revolt in the history of mankind in 1679, was the second boy born to his parents, Yvondieu and Wilmine.

Yvondieu left for the United States when Wolmy was 2 years old to establish himself before bringing his family. He settled in Fort Lauderdale, Florida, working in construction and later in a grocery store.

Wolmy and his older brother, Woldeeves, had sporadic electricity in their house by the beach in Port-de-Paix, but Wolmy said he has pleasant memories of his childhood. He said summers were spent traveling to his grandmother's farm in the countryside where she would have royal feasts consisting of goat

and lamb.

When Wolmy was 13, the rest of the Louigene family was reunited with Yvondieu in Florida. It was Wolmy's first time flying, as well as his first trip out of Haiti.

"It was a culture shock," Wolmy said. "It's like coming to a whole different planet. The language barrier was tough. I had to look a lot of words up. I learned a lot of English by watching TV with the captions on."

Despite the language barrier, Wolmy said coming to the U.S. was a dream come true for him and his family.

"The opportunities I was going to have for the rest of my life were going to be greater than those back in Haiti," Wolmy said. "Now we (his family) could become whatever we want and impact the world in whatever fashion we chose."

Even though things in the U.S. were very different for Wolmy, he said South Florida's large Haitian community made the transition easier. He said one of the more noticeable differences between Haiti and the U.S. was shopping – specifically the outdoor markets with individual vendors selling food and products in Haiti, whereas in America there are one-stop shopping options such as Walmart.

Before Wolmy joined the Army, he worked in a gym, drove Uber and attended college. Woldeeves, four years older than Wolmy, had already enlisted and often spoke of the benefits military service offers.

"The Army gives you a leg up when it comes to school, opportunities and experiences," Wolmy said. "It's one of the only good jobs you can get with no experience. You get paid to learn a skill that you can leave with and have the rest of your life to provide for your family."

Wolmy joined the Army in November 2017, and his first duty station was with the 53rd Signal Battalion at Fort Detrick, Maryland.

"This is a great opportunity to give back to the nation that has given me and my family so much, including now my beautiful daughter," Wolmy said. "The Army is paving the way for me and my family to have a great impact on this country."

Woldeeves, a sergeant currently in the process of commissioning as an officer as part of a nursing program for active duty Soldiers at the University of Alabama, has inspired Wolmy to possibly follow the same path in the future. For now though, he said working with satellites at the 53rd Signal Battalion has been a great experience.

"When I go to work, I work with satellite data 22,000 miles in orbit," Wolmy said. "Those are billion-dollar investments that our government makes for the safety of our Nation, and we get to take care of them, make sure they are operational, and make sure they do their job for the (Department of Defense)."

Wolmy said his Army career is training him to get a job in the civilian sector when he gets out. He is not sure at this point how long he will stay in, but winning the U.S. Army Space and Missile Defense Command Best Warrior Soldier category has helped make him feel right at home in his unit.

"Seeing the joy in my leadership's eyes for my success has been great," he said. "I am grateful for my leadership. They really got me to where I am today."

Wolmy said winning the competition has been a great turning point in his Army career.

"It's going to push me to do more and to try to be an example for my peers to follow, and down the line when I am a leader, my subordinates should be able to look at me for inspiration and guidance," he said. "I am the prime example of not mattering where you came from or where and how you grew up — being here, you have all the opportunities that are available to everyone. You just have to grasp and run with them. No one is going to stop you."

September is Hispanic Heritage Month



LET'S GIVE IT UP FOR FORT DETRICK'S CYS YOUTH SPORTS AND FITNESS TEAM FOR THEIR OUTSTANDING ACHIEVEMENT!

CONGRATS, CYSYOUTH SPORTS!

2020 NATIONAL ALLIANCE IN YOUTH SPORTS
EXCELLENCE AWARD WINNER

Housing Satisfaction Rates Improve as Efforts Continue to Increase

By USAG Public Affairs

When Col. Dexter Nunnally took Command in 2019, housing was at the top of his priority list.

It did not take long to rally the troops around this issue. Representatives from several directorates stepped up to log complaints and concerns, volunteers went door-to-door conducting customer satisfaction surveys, and to follow-up on completed repairs.

After a little over a year of actively working with RCI Housing, owned by Balfour Beatty Communities, several improvements have been made and future enhancements are in the works.

The Army hired an independent company to evaluate the satisfaction of residents living in privatized housing. CEL and Associates, Inc., a real estate consulting company based in Los Angeles, California, conducted a survey last fall. Fort Detrick residents residing in Army RCI Housing, were sent surveys via email. Out of the 320 emails, 78 surveys came back, a response rate of 23.8 percent. The survey period was November 2019 to December 2019.

The Army released the CEL survey results in June 2020. The survey evaluates the overall portfolio performance of three Satisfaction Indexes: Satisfaction Index, Business Success Factors, and Individual Questions. Seven properties took part in the survey. Fort Detrick's overall score was 78.6 out of 100.

Fort Detrick had an overall 23.8 percent response from the residents concerning the condition of their homes. The installation's scores for property satisfaction increased 1.9 of a point to 77.5, and service satisfaction increased by 4.3 of a point to 75.7.

The survey results show the properties at Fort Detrick Overall Satisfaction Index of Resident satisfaction with both the service provided. The physical property scores went up by property 12.9 of a point to 90.6 for Stark-Doughten, 13.2 of a point to 85.3 for Monocacy Meadows-Nallin Farm properties.

The Success Factor pertains to the perception of how willing or receptive the on-site personnel is to solving a particular problem; scores went up 1.6 of a point to 75.4.

For Responsiveness and Follow-Through, scores went up 3.8 of a point to 71.0. For Quality of Maintenance Service, the score went up 6.7 of a point to 80.2 from the prior score.

The Command recognizes there is still work to do with our partners. When our families identify a problem and a need for improvement, the team works to ensure they are meeting and improving the quality of life for all residents. An area the Command is focusing on with Balfour Beatty Communities is to improve the renewal intention rate. The score was up 3.3 of a point to 67 out of 100 of the likelihood of

residents renewing their leases.

The Garrison Commander, housing team, and BBC, work diligently to ensure every comment and concern that residents have is addressed in a timely manner. The Garrison Commander conducts weekly meetings with BBC to ensure concerns are addressed and that the residents receive the best possible service. Feedback from residents is extremely valuable for the Garrison Commander to measure and improve the quality of housing at Fort Detrick and Glen Haven apartments.

One of the main concerns with the Fort Detrick residents is the quality of drinking water. The Garrison is aware of the tap water concerns and how it affects our community's homes and is committed to providing our customers with safe and reliable drinking water. The Directorate of Public Works tests the water supplies consistently to ensure the drinking water meets or exceeds the Environmental Protection Agency and Maryland Department of Environment standards. Fort Detrick has also initiated a \$560,000 water filtration project to add filters in the main lines to remove discoloration that may cause residents' concerns. We expect project completion within a year.

lion in funding during FY19 to survey and upgrade the installation's sewer lines. In FY20 funding for an additional 9.9 million was funded to replace water lines to housing. The design phase of this project has begun and is expected to last approximately 8 months. In past years, the topic of brown water continued into discussions at town halls. With the approval of these two projects, this issue is expected to be resolved.

The Overall Resident Satisfaction Indexes dropped by 2.7 points from cost. the previous year. The Garrison Commander understands the satisfaction levels decreased slightly in some areas, and the families have identified areas in need of improvement. We want to ensure the residents understand the Garrison Command is not complacent when our families identify and communicate a problem.

In the barracks, one project in particular will save the Army thousands of dollars and satisfy residents. In August, the Directorate of Public Works crews began a project replacing a current two-pipe chiller and boiler system with Packaged Terminal Air Conditioners in all five barracks, totaling 240 rooms. The project will continue into fiscal year 2021.

The current system, installed in 1996, has reached its life expectancy. The system is costly to replace, and each season needs to be switched from cooling to heating.

Additionally, we received \$9.9 mil- When significant repair is required, the centrally located heating and cooling equipment is shut down, causing multiple buildings to be without air conditioning or heat. As you can imagine, this is not what residents want to hear during peak summer and winter months.

> The new PTAC units enable each tenant to control the temperature in their rooms. Units are easily accessible for service technicians to perform routine maintenance and repairs. If a PTAC unit fails, a replacement is available at a low

The project will save over \$21,000 in energy costs. The current twopipe system peak costs \$45,600.00 for one barracks building per year. The new system will reduce that to \$24,336 per year.

Lastly, leadership held a quarterly town hall for residents of Fort Detrick housing in September. One at Fort Detrick and one at Glen Haven Apartments and Townhomes in Silver Spring, Maryland. Both events took place virtually and included Garrison Commander. Col. Dexter Nunnally, Command Sgt. Maj. Jason Gusman and leadership from Balfour Beatty Communities. At Glen Haven, residents continued to express concerns regarding the amount of trash that is not making it to dumpster areas and lack of compliance by residents to utilize the trash valet service now provided to residents. Col. Nunnally once again stressed the

importance of taking pride in our neighborhoods and homes.

Another topic that appeared several times was when active duty are recently promoted and receive an increase in their monthly BAH amount, that new BAH amount is going directly to the privatized housing landlord even though they didn't sign a new lease.

Residents were told a privatized military housing project income stream is based on BAH. For most projects, Service Members pay rent directly to the developer in accordance with a tenant lease agreement. When a Service Member pays his or her BAH as rent, that typically includes refuse collection, water and sewer, common area ground and facilities care. In other words, as the BAH comes in as rent, that BAH goes out to pay the costs associated with running the privatized homes, including a small profit for the privatized housing provider. In that manner, these projects essentially fund themselves.

The Department of Defense wants market forces to drive contractor performance. This means that the primary enforcement mechanism is the ability of the Service Member to choose where to live.

Therefore, when a Service Member gets promoted and, as a result of that promotion, the amount of the Service Member's BAH increases. the rent also increases.

Service Members who have a legal question pertaining to BAH, the terms of their lease or housing issues generally can consult (at no cost) with the Fort Detrick Office of Staff Judge Advocate, Client Services Section at (301) 619-2221.

Other topics such as replacing street lights, kids unattended while on playgrounds and who to contact in housing were also brought to the attention of leadership.

As this year continues to be one for the records, we continue to keep housing a priority. Our goal is to make Army housing the first choice of residents. This is done through transparency and teamwork.

Thank you everyone for your contributions and candidness throughout the entire process. Together we will get this right.

Beyond Reality: New AUGMED Tool Pushes Limits of Medical Simulation

BY: Ramin A. Khalili, USAMRDC Public Affairs Office



A pair of Army Soldiers use the tablet version of the AUGMED virtual reality training tool during an ALS course at Fort Indiantown Gap on September 22.

Photo Credit: Dr. Cali Fidopiastis, Design Interactive, Inc.

famous – and famously loud – rules of combat casualty care.

"Slow is slow," said Sandoval, a medical instructor at Fort Indiantown Gap (FTIG), speaking at top volume, "but efficient is fast."

For the one dozen Soldiers and Army Reservists participating in

In a small multi-purpose activity room filled with socially-distant, the U.S. Army Combat Lifesaver (CLS) Course at FTIG on Septemmask-clad Soldiers attempting to learn the proper way to tie ber 22, it's a lesson worth remembering. So too, no doubt, is the tourniquets and set splints, Chris Sandoval delivered one of his method by which they learned some of the finer points of the CLS curriculum: via a brand new "extended reality" training tool developed by the U.S. Army Medical Research and Development Command (USAMRDC).

"It's a combination of augmented reality, mixed reality,

combat lifesaver classroom training," said JoAnn Archer, Senior standard Army training regimen in new and different ways. Research Associate at Design Interactive, Inc., of the new AUG-MED tool.

Sciences Research Program (MSISRP) - which initiated the the needs of overseas Soldiers who may not be able to attend effort via a standard request for proposal (RFP) - the AUGMED group refresher classes on a routine basis. "We could send, for is a multi-platform medical simulation tool designed to prepare example, 30 tablets to Soldiers overseas, with each Soldier Soldiers for the application of medical interventions in stressful getting a tablet, and they'd be required to complete those lesor unpredictable situations. Training can be performed on both sons via scenario-based testing." a standard tablet computer and, also, via a pair of Microsoft HoloLens virtual reality goggles; the latter of which stands the The combined team still needs to make substantial headway more immersive experience.

er Frank Karluk of goggle-driven option. "If there's supposed to to Karluk, take place within a year. be a fire over there or a vehicle over there, you're going to see that fire or vehicle or whatever the case may be."

firm answered the aforementioned RFP and then teamed with unique medical training required for the future battlefield and MSISRP personnel to develop the technology, "but you also see beyond. virtual overlays or directions in your space."

main the same. The AUGMED's tablet-driven option allows the trying it, and they've given us very candid feedback." user to scan, for example, any training manneguin (or, if they choose, even a live person) being used in any classroom or realworld setting and then insert that mannequin (or person) into the programmed training session. Once the simulation starts, the AUGMED allows the user to participate in a series of scenario-based training situations with real-time consequences. Still an additional feature allows for the application of specific lessons such as the treatment of massive, uncontrolled hemorrhage.

The insertion of the AUGMED into the CLS course at FTIG was designed as a stress test of sorts – as a way for both scientists and designers to gauge, in their words, the "usability" of the device and to obtain Soldier feedback as well. The long-term goal of the technology is to make Soldiers proficient in key lifesaving skills at a faster rate and, also, to allow course participants to retain those skills over a longer period of time. Ulti-

and virtual reality all blended together to assist and support mately, MSISRP scientists hope they can help supplement the

"The real goal is to make it as portable and functional as possible in a remote environment," said Karluk, noting the AUG-Funded by the USAMRDC's Medical Simulation and Information MED's brand of "extended reality" training specifically targets

device's main draw and additionally provides for a deeper, before that happens, however. In the immediate future, the team at Design Interactive, Inc. will take both the AUGMED and the day's feedback to their Orlando, Florida headquarters to "For example, when you turn your head, the goggles realize iron out potential glitches before continuing down the path of you're turning your head," said MSISRP Senior Program Manag- ultimately fielding the device – an effort which could, according

Indeed, while nothing will ever replace Sandoval's brand of boisterous, hands-on teaching techniques across the Army at "You see the real world in front of you," said Archer, whose large, the AUGMED may, in its own way, provide the kind of

"The real bang for your buck is being able to capture that im-Even without the goggles, however, the training modules re- mersion," said Archer. "The Soldiers have been interested in



Screenshot example of the "virtual reality overlay" technique used in an AUGMED training module. Here, virtual tools are present in the user's realworld experience. (Image Credit: Design Interactive, Inc.)

Fort Detrick Officer Assists Homecoming of U.S. Soldier Killed in Action in 1950

By Caree Vander Linden, USAMRIID PAO



Casualty Assistance Officer Maj. Jason "Jay" Cross of USAMRIID salutes the casket of Cpl. Jackey Blosser, a Korean War Veteran who had been missing and presumed killed in action since 1950. [Photo courtesy of MAJ Jason Cross, USAMRIID]

When Maj. Jason "Jay" Cross of Fort Detrick, Maryland, assumed the role of Casualty Assistance Officer in Nov. 2019, he never anticipated that it would end up being the highlight of his 17 years in the Army.

"What I had heard from others was that it's a tough job," said Cross, who serves as Chief of Operations at the U.S. Army Medical Research Institute of Infectious Diseases. "This time, though, the situation was a little bit different."

Cross's mission was to assist the homecoming of a Korean War Soldier, Cpl. Jack D. Blosser, who had been missing in action since 1950. Known as "Jackey" to his family and friends, Blosser was one of 14 children who grew up in Parsons, W. Va. He entered the U.S. Army in Sept. 1948 and served with Company D, 1st Battalion, 32nd Infantry Regiment, 7th Infantry Division. Two years later, at the age of 21, he was presumed killed in action during a battle at the Chosin Reservoir. His body was never found.

For decades, Blosser's relatives grieved without ever

knowing what had happened. In 1999, his niece and other family members began to search for information—reading about the war, attending POW/MIA conferences, and reaching out to survivors who had served with Blosser. Their lucky break came in 2018, when North Korea turned over 55 boxes containing the remains of U.S. Service Members. A year later, Blosser's family was notified that their Soldier was among them. At long last, Jackey was coming home.

Cross and two representatives from the Defense POW/MIA Accounting Agency met with Blosser's family in Dec. 2019. The DPAA officials walked them through the history of the battle and the days leading up to Blosser's death, recreating events as best they could. They also explained the process of DNA testing used to identify the remains—from a more general analysis to very specific familial testing, aided by a blood sample provided years earlier by Jackey's sister, Bonnie Shingleton.

Over the next several months, Cross supported Blosser's family members to help them navigate the process of planning an Army funeral. He also had the honor of escorting them to Pittsburgh International Airport, where Jackey's casket arrived on the evening of July 30, 2020. The 86-year-old Shingleton—the only remaining sibling of the 14—was there to welcome her brother home. She was just 13 when he left for the Army and 16 when they received word that he had likely been killed in action.

Shingleton was touched and overwhelmed by the scene at the airport. American Airlines had granted them access to the flight line, so Blosser's family, along with Cross and the military honor guard, were able to be on the tarmac to meet the plane. A police escort was arranged to control traffic from the airport to the church in Grafton, W. Va., where Jackey's funeral service was held.

In addition, Cross had been contacted by the American Legion Patriot Guard Riders, a volunteer organization that provides motorcycle escorts to the funeral services of fallen American heroes.

"The ride captain in Pennsylvania knew exactly where we needed to go," said Cross. "We were met by about 75 motorcycles, riding two by two, escorting the hearse, the family vehicle and the honor guard. When we got to the state line, some additional riders from West Virginia joined us."

After the funeral, the honor guard presented Shingleton with an American flag and a shadow box containing her brother's medals, including a Purple Heart. Then the main thoroughfares were closed, and despite the rain, the town of Grafton came out and lined the streets, waving flags as the funeral procession went from the church to the West Virginia National Cemetery.

"It was the culmination of a 20-year search for a man who died 70 years ago," said Cross, "but you would never know how long ago it happened by the outpouring of support that we received. It made this sad occasion almost feel more like a celebration."

As a final gesture of support to the family, Cross contacted 7th Infantry Division headquarters at Joint Base Lewis-McChord, Wash., to tell them the story of Cpl. Jackey Blosser. Their Commanding General, Maj. Gen. Xavier Brunson, and CSM Robin Bolmer held a ceremony Aug. 3 inducting Blosser into the prestigious Order of the Bayonet. This honor is reserved for members of the 7th Infantry Division who display personal performance of duties deemed by a commander to be "above and

beyond the call." They mailed the award plaque to Cross, who presented it to Blosser's family Aug. 25, along with a video of the ceremony.

"The leaders at JBLM were amazing," said Cross. "They thanked us for keeping his memory alive, and for bringing one of their Soldiers home. To be a part of this—even in a small way—was such an honor. It has been the most fulfilling mission of my military career."

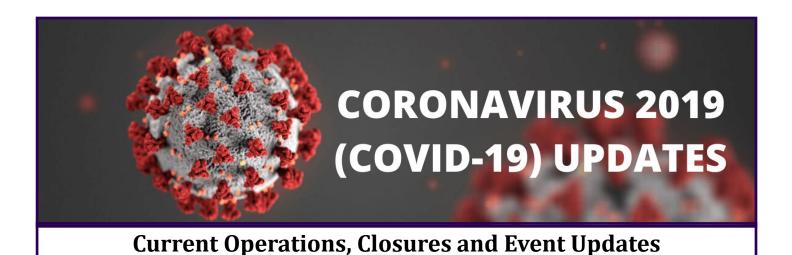
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Note: You can view the video of CPL Blosser's Order of the Bayonet induction ceremony at this link: https://drive.google.com/file/d/1NBXIqqPSP9HiUVKVlay2F2HlEsAcRA6v/view? usp=sharing



On Aug. 3, 2020, Cpl. Blosser was posthumously awarded the Order of the Bayonet by Maj. Gen. Xavier Brunson and Command Sgt. Maj. Robin Bolmer, 7th Infantry Division, Joint Base Lewis-McChord, Wash.

Photo courtesy of Maj. Jason Cross, USAMRIID



<u>Gate Operations:</u> In response to operational changes due to COVID-19, Nallin Farm Gate and Old Farm gates will remain operational for entry and exit. Nallin Farm Gate will be open 24/7 at Fort Detrick and any vetting operations at Fort Detrick will occur at Nallin Gate.

Old Farm Gate is open Monday - Friday from 6 a.m. - 6 p.m. and on weekends from 9 a.m. - 6 p.m.

Veterans Gate is open Mon-Fri from 6 a.m.- 2 p.m.

At Forest Glen, Linden Lane Gate is closed until further notice. Brookville Gate will be open 24/7 and any vetting operations at Forest Glen will take place at the Brookville Gate.

National Night Out

Come out and meet your Fort Detrick Police Department.

Fort Detrick: Tuesday, October 6th from 6:30-8:30 pm

Glen Haven: Tuesday, October 13th from 6:30-8:30 pm

Both events are at the community centers in housing. Games, food, and a movie under the stars. This year the movie will be Dolittle featuring Robert Downey Jr.

Inside Dining Resumed at PX Sept. 21

Guidelines that must be followed:

- O Please limit your dining time, during peak hours (MON-FRI 11am-1:30pm) to 30 minutes.
- O Dining Seating are for dining customers only. Please do not move or consolidate tables & chairs.
- O Face Coverings are not required while dining. Face Coverings are required when not dining.
- O Please request a new cup from one of the restaurants

before going to the drink station for a refill.

O When finished dining, please turn the table sign, to indicate the table needs to be cleaned for the next dining customers.

Halloween Decoration Donations Needed at Child & Youth Services

For this year's Harvest Festival we are adding a special haunted treat and would like the support of the Fort Detrick family. We are seeking gently used Halloween decorations, props or accessories. Examples of items we could use are large pumpkins, scarecrows, costumes, etc. Please bring the decorations to building 949A Sultan Drive on Fort Detrick. We will collect donations until October 16, 2020. Your donations will be greatly appreciate. Please feel free to call 301-619-7100 if you have any questions. Please help to make our Harvest Festival a success!

Middle School & Teen Program - We're Back!

Monday-Friday, 2-6 pm

Bldg. 955 Sultan Drive

Safe, socially distant youth socializing. Gym time, Crafts, Video Games, and Cooking Projects!

For more information please contact the center at 301-619-2901.

To register please call Parent Central Services at 301-619-7100. Spaces available.

UPDATE Pet Kennel and Doggie Day Care

By appointment only, Monday-Friday, 7-9am and 3-5:30pm for curbside pick-up and drop Saturday and Sunday for overnight lodging by appointment only

121 Hamilton Street

For appointment, please call 301-619-3950.

Daycare: \$23 daily Lodging cost varies Fun weekly events

Run must be completed 11-18 Oct 2020.

Location of participant choosing using a tracking app supplied by



Current Operations, Closures and Event Cancellations

<u>Fort Detrick 2020 Army Ten Miler, Virtual Edition for active</u> duty Service Members

Cost: \$59. For more info, call 301-619-2564.

Child & Youth Services 2020 Harvest Fest

October 23, 2020, 1600-1900 Sultan Drive

For more information please call 301-619-2538 Come out to FMWR's Annual Harvest Fest Event combines MRDC Trunk or Treat, Fort Detrick Chapel, Fire Prevention Awareness, BOSS, Family Advocacy Program, DECA, DFMWR and local crafters

Barquist Clinic & Pharmacy closure for September

Sept. 4: Reduced hours (DONSA) – closes at 11:30 a.m.

Sept. 7: Labor Day holiday – closed all day

Sept. 18: Reduced hours (Training) – closes at 11:30 a.m.

2020 Fort Detrick Army versus Navy Flag Football Game

October 23, 2020 (Kickoff 1200)

Blue and Gray Field

For more information, please call 301-619-2564Annually, Fort Detrick hosts an Army versus (vs) Navy Flag Football Game with participation from across the installation units of Army, Navy, and Marines to build esprit de corps, allow service members to display their athletic ability, and cultivate good sportsmanship, all ahead of the official Army (vs) Navy Football game.

Movie Night

BLUE & GRAY FIELD
Fridays * 7:30 pm
Porter Street
Bring your own blankets and refreshments
Movies will run every Friday until the weather gets to cold.

Fort Detrick Digital App Now Available



Attention Soldiers, families, civilians, veterans and retirees, with a tap of a finger you can easily access Fort Detrick recreation activities, shopping and more! The #DigitalGarrison mobile app is available for download on your smartphone or tablet.

2020 Fort Detrick Holiday Craft Fair

November 18, 2020, 1100 - 1700
Odom Fitness Center, Bldg. 1507
For more information please call 301-619-2564
Come out to FMWR's annual Fort Detrick Holiday Craft Fair at
Odom Fitness Center on 18 November 2020, featuring crafters, knitters, woodworkers, and painters.