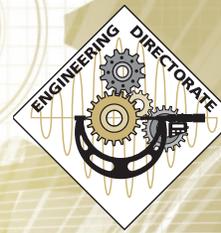


THE ENGINEERING EDGE

EDGEWOOD CHEMICAL BIOLOGICAL CENTER

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ECBC ENGINEERING
Design→Build→Test→Support

ECBC Engineering Expertise Keeps RFAST Program Up and Running in Afghanistan



While winter barely hit Maryland this year, Colin Graham wakes up to ten inches of snow when he starts his workday. Graham carefully walks through the unsalted snow trenches he and his colleagues made to get to his work destination each morning. The morning trek through the snow is just one minute part of the time Graham is serving under the U.S. Army Research Development and Engineering Command's Field Assistance in Science and Technology (RFAST) program at Bagram Airbase in Afghanistan.

Graham is an engineer in ECBC Engineering's Advanced Design and Manufacturing Division (ADM) and has been in Afghanistan since mid-November, when he replaced fellow-ADM employee Kevin Washok from his tour in Afghanistan.

"The Base does not have salt, sand or anything over here so we have to be careful. I think nearly everyone has fallen before. One guy was already sent home with a broken ankle from falling on the ice," said Graham, who is one of nine (including management) current RFAST members.

Graham is the second ADM employee to take advantage of the RFAST program that places engineers and engineering technicians alongside Warfighters to solve problems with equipment used in theater.

Warfighters can come to the Prototype Integration Facility (PIF) where Graham and other RFAST members are based, ask for assistance with equipment and the engineers and technicians in RFAST will work with them directly to find a solution. Some of Graham's colleagues include individuals from Tank Automotive Research, Development and Engineering Center, Armament Research, Development and Engineering Center, and RDECOM. He also works closely with the Joint Program Office for Mine Resistant Ambush Protection, The Program Manager for Forward Looking Infrared, The Program Manager for Tactical Vehicles, as well as Program Manager assured Mobility Systems.

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ECBC Engineering Modifies Homemade Explosives Kit Detector for Early Fall 2012 Operational Assessment

In the December 2011 issue, The Engineering Edge reported on the cross-branch collaboration across Engineering to create the Squad Homemade Explosives Kit, a pocket-sized tool that helps Warfighters detect improvised explosives made from household chemicals. In the past three months, the branches working on the project have made significant strides to prepare the kit for late fall 2012 use.



In less than two months, the Innovative Development Engineering Acquisitions (IDEA) Team and the Advanced Design and Manufacturing Division's (ADM) Engineering Design and Manufacturing Team were able to create a new model of a homemade explosives kit detector, now known as the Colorimetric Reconnaissance Explosive Squad Screening (CRESS) detector. The new detector will be ready to be issued to an operational unit to conduct an operational assessment in late fall 2012. The first prototypes will be used by the Fort Benning Infantry School in Georgia. ADM coordinated a low-rate production line to begin the creation of these prototypes.

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To access the electronic version of this newsletter visit:
<http://www.ecbc.army.mil/news/ENG/>



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This newsletter was published through the Balanced Scorecard.

For article suggestions, questions or comments please contact **Ed Bowen** at ed.bowen8.civ@mail.mil.



Female Scientists and Engineers Discuss the Role of Women in Science and Engineering Career Fields at the Second Annual ECBC Women's Panel Event



In honor of National Women's History Month, the ECBC Engineering Directorate hosted the second annual Women in Science and Engineering (WISE) Panel event on 5 March 2012, at the Edgewood Area of Aberdeen Proving Ground. The event drew more than 90 attendees from across the Center.

This year's panel included six women from both ECBC's executive leadership and the general workforce. The career and educational experience levels of

the panelists also varied, capturing a variety of perspectives regarding the role of women in the historically male-dominated fields of science and engineering.

"As a younger member of the ECBC workforce, I did not have a hard time feeling comfortable and did not feel the need to prove myself in the science and engineering fields," said Jadey Pareja, panelist and chemical engineer in Engineering's Protective Equipment Test Branch (PET). "The other women sitting here broke down those kinds of barriers for my generation."

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Awareness Tip: April 22 is Earth Day



Earth Day is intended to spread awareness and an appreciation for the Earth's natural resources. The holiday which unofficially dates back to the late 60s capitalizes on a renewed environmental awareness that spread through the nation following Rachel Carson's 1962 book "Silent Spring." The first April Earth Day was started by U.S. Senator Gaylord Nelson in 1970 as a "teach-in" day to discuss environmental values, and issues plaguing the Earth and its resources. Since then, it has evolved to an international day of observation with billions of people celebrating worldwide, making it the third most celebrated holiday behind

Christmas and Halloween. According to Earth Day Network, more than 1 billion people are involved in Earth Day activities, making it "the largest secular civic event in the world." ⚙️

Safety Tip: Preparing for the April 16-27 SMR Inspection



Be sure to prepare for the April Standard Management Requirements (SMR) inspection. Take steps to get organized and review previous inspection results. For a complete guide to how to prepare and handle the SMR, please visit the Safety SharePoint site at <https://cbconnect.apgea.army.mil/safety/default.aspx>. For more questions please contact the Safety and Health Office or the Surety and Security Office at (410) 436-4411. ⚙️

Security Tip: How do I obtain a hunting/fishing license for APG?"



In order to receive a license for hunting/fishing at Aberdeen Proving Ground, the Outdoor Recreation Office requires a letter from the ECBC Security Office verifying your security clearance. Email the Security Office at APGR-ECBC and tell them that you need the memo for the Outdoor Recreation Office hunting/fishing license. The security office will then verify your clearance and let you know when the memo is ready. The POC for this will be Sue Wolfrum (410-436-6598). ⚙️



Building Trust and Maintaining Good Relationships: A talk with Sheri Jeric, E3726 Facilities Manager, Protective Factor Toxic Chambers Branch

In this month's Employee Spotlight, the Engineering Edge spoke with Sheri Jeric, the facilities manager of E3726 Protective Factor Toxic Chambers Branch to learn more about her role within the Engineering Directorate.

How did you get started with the Protective Factor and Toxic Chambers Branch at ECBC?

My first job was with the U.S. Army Medical Research Institute of Chemical Defense as a clerk typist in 1990. I worked there for a year in the Neurotoxicological Branch. I accepted a Secretarial position at Edgewood Chemical Biological Center (ECBC), which was then known as Chemical Research Development & Engineering Center (CRDEC), in the Research and Technology Directorate, Physical Properties Branch the following year.

I had some magnificent mentors and tutors in CRDEC R&T who supported my desire for knowledge and understanding. Mr. Donald Fielder was one of the first supervisors that sought to promote me from an administrative position to a more technical-based job. The unfortunate situation during those years was there were no openings for a physical scientist or engineering technician in R&T.

I transferred to a secretarial position in the Operations Directorate of CRDEC in 1996. I had the opportunity to establish a networking connection with another administrative assistant that introduced me to a supervisor willing to allow me the opportunity to train as a technician. Mr. Timothy Blades, who was then the Chemical Division Chief in CRDEC, allowed me to learn the technician trade in the field while continuing to provide the administrative support for the Monitoring Branch. I supported the branch administratively while learning to conduct air monitoring support using various pieces of equipment and technology. After splitting my time for approximately two years, the opportunity presented itself to convert my job to an upward mobility technician position within the Monitoring Branch. I spent the next several years learning anything and everything I possibly could. I had some great and patient teachers that took the time to share their expertise. I worked in quite a few of the different branches before my final stop within that Division, supporting the Ton Container effort at the former Aberdeen Chemical Agent Disposal Facility Demilitarization Facility.

I accepted a position with the Engineering Directorate in 2005, as an Engineering Technician, to work at the Protective Factor Toxic Chambers (PFTC). From 2005 until 2009, I worked under the direction of a facility manager to learn the overall mission of the chambers as well as the day-to-day operations. When the opportunity for promotion into a Facility Manager position presented itself last year, Environmental Test Branch

Chief Alex Pappas recognized my potential for furthering the Engineering Directorate's mission within the PFTC Branch. I have been doing my best to make our branch, Directorate and Center proud since being hired as the Facility Manager for the E3726 Toxic Test Chamber.

What is your favorite part about your job?

My favorite part of my job is that I get to meet and collaborate with so many new people from diverse disciplines. The testing that we perform is unique and extremely important for our soldiers. It is an amazing experience to know that the work we do supports a greater cause directly affecting the safety and mission of the Warfighter, proudly standing up for our country.

What project are you currently working on, or have you worked on that you found particularly exciting?

My favorite, most enlightening project is always the one in progress. With each new test plan comes new challenges and unique test designs that are exciting on multiple levels.

What skill do you use in your job, which you initially did not think you would need?

I have had to change skill sets many times over the course of my 20-plus year career. Unconditional trust is the one skill I never thought that I would need to embrace. Planning a test or experiment sounds very precise when you think about it in terms of materials, schedule and cost. The human factor is truly the defining edge of the testing arena. Every person forms trust bonds differently. The ability to keep a team bonded through to the completion of anything requires being able to understand their needs and what makes them feel comfortable. That is important when you are conducting chamber testing. What we do is not simply setting up a test or experiment in a laboratory hood where the person conducting the test stands outside of their engineering controls and manipulates the equipment with only their hands and arms. We set up our tests or experiments inside the chamber, and then we walk into the chamber. One needs to have a sturdy comfort level and trust their testing buddy almost like they are your family in order to conduct the most accurate tests. Never step on anyone on your way to the next level, build a ladder with your team. It is hard work, but more rewarding for everyone. ⚙️

ECBC Engineering Modifies Homemade Explosives Kit Detector for Early Fall 2012 Operational Assessment

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"We're in the process of fabricating 4,000 units to be sent to the Warfighter late fall," said Jim Genovese, Chief of the IDEA Branch. "This type of technology is useful right now, so we need to get it out fast."

The CRESS Kit development, formerly known as the Squad Homemade Explosives Kit, was initially funded by the Army Technology Objective R.FP.2010.01 "Detection of Unknown Bulk Explosives." It is a pocket-sized detector that uses colorimetric technology to detect unsophisticated, homemade substances such as ammonium nitrate, commonly used in improvised explosives overseas.

The CRESS has two plastic halves that fold together and click into place. One side of the half is a sticky paper that is used for collecting the unknown substance, and the other side contains ampoules filled with the colorimetric substance. The two halves are folded together and reagent

ampoules crushed. After about 30 seconds, the colorimetric technology will identify the substance, whether or not it is part of a harmful mixture.

After the first Military User Assessment (MUA) in June 2011, the IDEA and Engineering Design and Manufacturing teams implemented several slight modifications to CRESS in order to improve efficiencies and usability. One of the changes included creating a new way to activate the ampoules. In the previous method, color results often varied due to inconsistencies in the ampoules successful activation. The new model includes an easy-to-use cover that effectively breaks each of the ampoules, ensuring the quality and consistency of results.

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ECBC ENGINEERING

Gains Additional Testing Capabilities

Engineering Protective Equipment Test Branch Expands Test Capabilities to Better Equip the Warfighter

The Protective Equipment Test (PET) Branch recently took a large step toward increasing the safety and reliability of Warfighter equipment with its extensive laboratory renovations. PET's newly recertified labs, which have been under renovations for nearly a year, will soon be up and running allowing the team to expand their capability service offerings for the Warfighter.

"These new testing systems will allow us to run multiple tests a day, which heightens our accuracy in testing," said Jonathan Grzeika, a chemical engineer for the Carbon Team in the PET Branch. "The new hoods allow us to test more types of chemical agents, than we were able to before."

The PET branch works to "protect the nation's protectors" with a primary mission to conduct first article, production lot acceptance and surveillance testing on military, unique and civilian, individual and collective protective equipment. Grzeika said the new testing labs will enhance all aspects of the types of testing the PET Branch conducts: carbon testing, end item testing of filters, Aerosol Vapor Liquid Assessment Group (AVLAG) permeation test system, and better Simulant Agent Resistant Test MaNikin (SMARTMAN) agent testing.

The upgrades to the labs and new equipment will increase the data quality, environmental control and capacity of PET's loose sorbent,

canisters/cartridges and filter testing capabilities by four times the previous amount. The Quality Assurance capabilities will be enhanced allowing the branch to comb through a data set to determine anomalies in testing.

"These new testing systems will allow us to run multiple tests a day, which heightens our accuracy in testing," said Jonathan Grzeika, a chemical engineer for the Carbon Team in the PET Branch. "The new hoods allow us to test more types of chemical agents, than we were able to before."

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with Laboratory Renovations

Engineering's Permeation and Analytical Solutions Branch Unveils Expanded Testing Capabilities

The Engineering Test Division (ETD) and the Permeation and Analytical Solutions Branch (PASB) hosted a ribbon cutting ceremony on 1 February to mark the unveiling of a new 26-cell Aerosol Vapor Liquid Assessment Group (AVLAG) permeation test system and a newly designed 282-flood cell test system.

The design, fabrication and modifications of the test fixtures were created through partnerships between ETD branches and ECBC's Advanced Design and Manufacturing Division, in support of the Joint Equipment Assessment Program (JEAP).

The 26-cell AVLAG test fixture design includes modifications to increase test capacity through efficiency, improved data quality and enhanced customer interaction by using web-based tools such as SharePoint®, which fostered a collaborative effort by PASB, Test, Reliability and Evaluation Branch (TREB), Protective Equipment Test Branch (PET), all ETD branches. The test fixture is designed to support the JEAP surveillance of IPE as a function of the Defense, Reutilization, Accountability and Disposal Project, in evaluation of the military's stockpile of chemical protective clothing. Pine Bluff Arsenal will participate in JEAP testing with an identical 26-cell AVLAG test system to be installed by PASB personnel.

Alvin D. Thornton, Director of Engineering, gave opening remarks followed by presentations showcasing ETD's test capabilities and the partnership between the ETD branches. After the informational meeting, the attendees were invited to see demonstrations of the new test AVLAG systems in E3510.

PASB welcomed Kent Schmitz and Keith Moses from the sponsoring organization Tank-Automotive and Armaments Command (TACOM) as well as representatives from JEAP, Pine Bluff Arsenal, Joint Program Executive Office for Chemical and Biological Defense and Joint Project Manager-Individual Protection. Terry Hardin (PBA) and Scott Sprouse (JEAP LNO) were also in attendance.

The following individuals presented information regarding the new test systems: Brian Maclver, Branch Chief, PASB; Mary McNally, Branch Chief, Protective Equipment Test Branch; Do Nguyen, Branch Chief, TREB; Mike Sheely, PASB; Chris Cantler, Joint Research and Development (JRAD) in support of PASB; Tom Lynn, (JRAD) in support of PASB; Chris Steinbach, (JRAD) in support of PASB; Traci Graham (PASB); and Mark Williams, Science Applications International Corporation in support of PASB. ⚙️

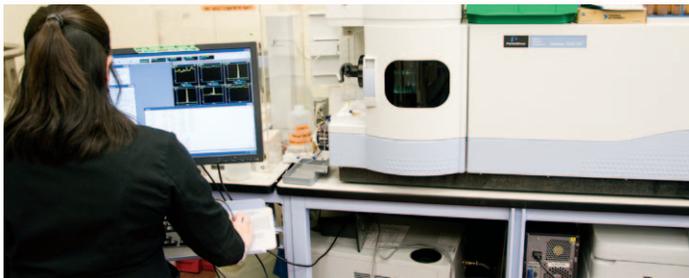


Chris Cantler, JRAD, assembles AVLAG cells to complete the new 26-cell test system.



Discussions regarding JEAP testing continued on 2 February 2012. Pictured from left to right: Terry Hardin, PineBluff; Chris Cantler, JRAD; Brian Maclver, PASB; Keith Moses, TACOM; Maude Wickline, HQ AMC; Tony Johnson, TACOM; Do Nguyen, TREB

ECBC Engineering Gains Additional Testing Capabilities with Laboratory Renovations: Engineering Protective Equipment Test Branch Expands Test Capabilities to Better Equip the Warfighter



ECBC's Protective Equipment Test Branch's renovated laboratories feature new equipment that expands that branch's capabilities making the branch a "one-stop shop" for production lot testing.

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The goal for these renovations is to make the PET Branch a "one-stop shop" for production lot testing needs. With more hood space and increased testing capabilities, PET is able to become that one stop. Additional lab space will allow for there to be backup test systems in the event of maintenance work.

"When one hood is down for maintenance, there will be other usable hoods available," Grzeika said. "The labs will have a sorbent bed testing system with new analytical and environmental monitoring and controls, as well as a new filter system that can test four times as many filters as the previous system with new analytical instrumentation and environmental control and monitoring."

These new testing capabilities come at an especially pertinent time. During renovations, PET sacrificed space in order to make room for its new laboratories. Since the upgrades began in Spring 2010, PET created improvised testing spaces and collaborated with teams in ECBC's Research and Technology Directorate (R&T) to ensure the branch could continue to meet their customers' requirements and carry on with testing

during the upgrades. While space was a luxury during this time, working with the R&T Directorate gave PET a sneak preview of the new technology they would receive following the renovations. During the downtime, PET transitioned several technological improvements and methods to the R&T Directorate's cutting-edge sorbent testing labs. Dr. Stan Ostazeski from R&T's Forensic Analytical Center also contributed hoods to help PET continue with testing during the move.

Grzeika said while he is glad PET did not lose momentum during the renovations and had good cause to form partnerships within R&T, he is excited to get to the new labs and utilize the optimized testing to produce major results for the Warfighter.

"The experience of improvising our work space really helped us become better testers. It was nice to develop our creativity - altering our test samples to take up half of the real hood space it typically requires," Grzeika said. "But at the same time, the idea of getting into these new labs and starting off with a fresh slate to do even more precise testing is exciting." ⚙️

ECBC Engineering Modifies Homemade Explosives Kit Detector for Early Fall 2012 Operational Assessment

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This new model presented at the February 2012 MUA at Fort Leonard Wood, MO performed well and the Warfighters performing the assessment could easily use the detector. The success of the MUA spurred requests for prototypes by the summer.

In addition to adjusting how ampoules are activated, the new detector model improves the device's usability and intuitive design.

Additionally, the teams are working to implement edits to the device's user manual. Rather than reading dense lines of directions in fine print, easy-to-follow pictorial directions will be used that can be absorbed by the end-user within minutes.

"The old directions were 20 lines long and in small print," Genovese said. "When a Warfighter is in an emergency and needs to learn how to use something, there may not always be time to stand and read through every little thing. These new picture directions will enable the Warfighter to easily glance down at the manual, learn how to use the device and proceed with testing the substance. Results need to happen quick and fast in theater, so we want to make it as easy as possible."

To ease the use of the product, Genovese teamed up with ECBC Engineering's Pyrotechnics and Explosives Branch to work on a trainer

kit that will complement the CRESS. The kit allows Warfighters to practice using the detector with commonly found chemicals in theater.

The training kit will include transportable forms of the chemicals that are easy to store. "The Warfighter can practice using the CRESS on a training kit, before he actually needs it. Thanks to Pyrotechnics and Explosives Branch Chief Joe Domanico and the folks in his branch, we were able to give the Warfighter forms of actual chemicals to practice with, without the level of hazard," Genovese said.

With a Technology Readiness Level that increased from six to nearly eight in less than two months, Genovese attributes the forward momentum and success of the CRESS project to a solid team effort across the Engineering Directorate. Additionally, Genovese noted that the support from the project's sponsor, Dr. Way Fountain, Acting Director of the ECBC Research and Technology Directorate, and a good relationship with the Army Training and Doctrine Command Maneuver Support Center for Excellence have also attributed to the recent strides in the device's development.

The story doesn't stop there, visit our blog at <http://edgewoodchembio.blogspot.com> to read more about the CRESS kit. ⚙️

ECBC Engineering Expertise Keeps RFAST Program Up and Running in Afghanistan



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The Bagram Airbase PIF has been fully operational since mid-December 2011. It is currently under a new PIF Director, Mark Oetken, from Picatinny Arsenal, NJ. Washok and representatives from other Army organizations spent August 2011 to December 2011 setting up the PIF space to be the operational help center that it is now. Graham said about 90 percent of the customers who come into the PIF looking for equipment solutions are soldiers, and usually solutions can be found in a matter of two to three days, although more complex solutions can take longer.

“Working with the end user is the best part about being here in Bagram,” Graham said. He notes, however, that having the raw materials to find these solutions can at times be challenging. Finding the best material to fix a problem is tough when resources like brass are not readily available in Afghanistan.

This requires the workers to be resourceful and find alternate materials to complete the project.

“We have a lot of critical materials, but we do not always have materials that are the best fit,” Graham said. “Material availability is different out here. Sometimes we have to use steel instead of aluminum and while it works, the steel might make it a little bit heavier than usual. In the end, the soldiers are still happy with the product, and that is what is important.”

ECBC is also helping the PIF with establishing a structural framework for the longevity of the RFAST program. Previous to Graham’s tour, Washok’s group created a Safety Program for the PIF using the ECBC Safety Program as an example. [Read more about Washok’s experience in Afghanistan and the Safety Program he started up at <http://edgewoodchembio.blogspot.com>

“Our safety program is still in effect at RFAST Bagram and is the only one of its kind over here,” Graham said. “The next step is to adapt a Quality Program for the PIF. While more standards are in place than in mid-December 2011, low personnel and a quick turnaround are holding the program from becoming full-fledged at this time.”

In addition to bringing more ECBC structural practices over to Afghanistan, the RFAST program will continue to have ECBC Engineering representation into the future. In March, another ECBC ADM engineering technician, Danny Ward will replace the individual who went home with an ankle injury, followed by a new ECBC rotational RFAST member in May to replace Graham.

“We have a lot of critical materials, but we do not always have materials that are the best fit,” Graham said. “Material availability is different out here. Sometimes we have to use steel instead of aluminum and while it works, the steel might make it a little bit heavier than usual. In the end, the soldiers are still happy with the product, and that is what is important.”

“Being here has given me a lot of opportunity to not only work with the Warfighter, but also learn how it feels to work in a new type of environment that challenges me,” Graham said.

At 12 hours a day, and seven days a week, Graham’s work schedule keeps him busy, limiting his opportunities to travel away from the PIF. Despite the long work days, Graham enjoys the opportunity to directly interact and learn more about Warfighter needs, and befriend new colleagues.

“It was an adjustment at first, but now I am in the swing of things and have a routine,” Graham said. “So far, being in Afghanistan has been great. I love that I am doing something here that I cannot do in the States.” ⚙️



Advanced Design and Manufacturing Division’s Colin Graham continues the day-to-day operations of the RDECOM Field Assistance in Science and Technology (RFAST) Program Production Integration Facility in Bagram Airbase, Afghanistan. Despite extreme weather and limited resources, Graham said the face-to-face time with the Warfighter is invaluable.

ECBC Industrial Base Office and AMC Industrial Base Capabilities Division Form Strategic Partnership

Large-scale emergencies, whether natural disasters or man-made accidents, have the potential to interfere with the sustainment of the Army Industrial Base Program. However, thanks to a recent partnership between the Edgewood Chemical Biological Center (ECBC) Industrial Base Office (IBO) and the Army Materiel Command's Industrial Base Capabilities Division (AMC IBCD) Continuity of Operations Plan (COOP), the Army IB Program will remain functional despite the occurrence of unforeseen disasters. As a part of this new partnership, ECBC IBO - located at Rock Island Arsenal - now serves as a second line to AMC, providing mission-critical functions in the event of an emergency that downgrades AMC IBCD ability to provide program sustainment.

"The selection of ECBC IBO was not only a great tribute to the hard work of our staff but also a reflection of our customer's appreciation and trust for the excellent services provided," said Eric Hoover ECBC IB team leader.

The COOP is activated when any unplanned event or emergency directly impacts the ability of the AMC IBCD to execute the Army's IB Program. This immobilizing event or emergency could be defined as a fire, hazardous material incident, flooding, tornado, communications failure, radiological incident, civil disturbance, hurricane or tropical storm, explosion, "sick-building" syndrome, or terrorist event. Regardless of the scope of damage of the event, the COOP plan must be ready for execution at a moment's notice.

AMC IBCD and ECBC IBO's relationship began five years ago with a Memorandum of Agreement (MOA) designating ECBC IBO as an internal branch of AMC IBCD that assists with the management of tasks, project plans, and assessments. The synergy and customer support produced from this interagency MOA influenced AMC IBCD in January 2012 to designate ECBC IBO as the COOP Alternative Activity for the Army's IB Program.

The resulting COOP MOA provides a business process between the two agencies ensuring that mission-critical functions are performed by ECBC IBO in the event of a disaster impacting Headquarters, AMC. The scope of the MOA encompasses all actions required for continuity of operations to include joint planning, preparatory measures, response actions, and restoration activities to maintain industrial base capabilities, U.S. Army readiness, and survivability of the Warfighter.

"In today's information intensive environment, it is critical to have backup plans to ensure seamless program operation and sustainment. The COOP MOA provides this function not only between AMC IBCD and ECBC IBO but also to other internal and external customers," Hoover said.

Since AMC IBCD is the Army's IB Program Office of Responsibility, this plan required the further integration and development of practices, procedures, and techniques plus interoperable communications not only between the AMC and ECBC organizations but also across numerous government offices.

In order to ensure continuity of IB operations within the United States Army, the COOP plan is a living document that contains essential information and actions, which must be updated to remain relevant to support operations at a moment's notice. Although the plan outlines the organization's plans and objectives, the key to the success of the plan is a strong bond of trust between the two agencies.

"The integration of human capital and program knowledge from this plan clearly reveals the criticality of communications to any interagency process. This assimilation has enabled our staff to provide improved customer support and achieve efficiencies," Hoover said.

At the end state, the ECBC IBO's COOP mission supports the Warfighter and ensures that industrial base program support to the Life Cycle Management Commands and the Research, Development & Engineering Centers is maintained.

Holistically, the COOP supports critical interagency communications to the Office of the Assistant Secretary of the Army, Acquisition, Logistics, and Technology; Defense Contract Management Agency-Industrial Analysis Center; and the Defense Logistics Agency in support of a "Common Operating Picture" of industrial base operations. The AMC IBCD and ECBC IBO COOP is not only a good business practice, it also ensures that no Warfighter deploys without his or her mission equipment. ⚙️

"Continuity planning is simply a good business practice to ensure the execution of essential functions through all circumstances. It is a fundamental responsibility of public and private entities responsible to their stakeholders."

- Federal Emergency Management Agency

Industrial Base Capabilities Division Continuity of Operations Mission Essential Function

Priority Mission Essential Function

Defense Priorities & Allocation System (DPAS)

Committee on Foreign Investment in the United States (CFIUS)

Diminishing Manufacturing Sources & Material Shortages (DMSMS)

Critical Infrastructure Risk Management (CIRM)

IB Assessment & Analysis
Table 1

Female Scientists and Engineers Discuss the Role of Women in Science and Engineering Career Fields at the Second Annual ECBC Women's Panel Event

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Pareja represented a younger generation within the Center's workforce and was one of six panelists that participated in the event in March. Other panelists included: Suzanne Milchling, Director of the Directorate of Program Integration; Nan Ramsey, Associate Director of Engineering and Rock Island Site Manager; Cindy Swim, Research and Technology Directorate's Chemical Biological Detection Division Chief; Mary McNally, PET Branch Chief; Jadey Pareja, chemical engineer of PET and Nichole

Au, chemical engineer of the Detection Engineering Branch. Nicole Funk, Senior Vice President of Booz Allen Hamilton and a member of the ECBC Engineering Balanced Scorecard Board of Directors moderated the event.

The story doesn't stop there, visit our blog at <http://edgewoodchembio.blogspot.com> to read more about the Second annual Women in Science and Engineering panel event ⚙️