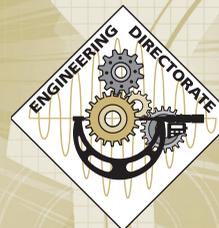


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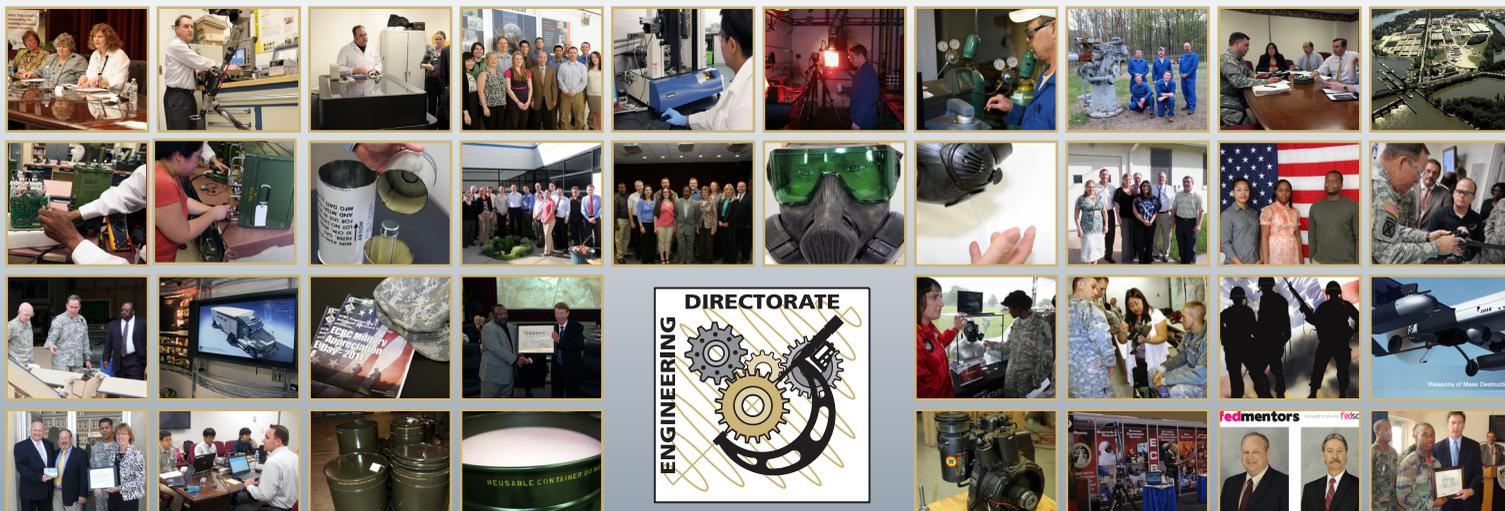
THE ENGINEERING EDGE

EDGEWOOD CHEMICAL BIOLOGICAL CENTER



ECBC ENGINEERING
Design→Build→Test→Support

SPECIAL ISSUE: ENGINEERING 2011, A YEAR IN REVIEW



ECBC Engineering



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APPROVED FOR PUBLIC RELEASE

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Safety Tip: Is Your Bleach Still Effective?

Bleach has a shelf life that is dependent on manufacturer recommendations. You must ensure your decontaminant is still effective. Here are tips to check some of the most popular bleach formulations: 1) Stock bleach is usually 5.25% sodium hypochlorite. Labs usually dilute to a 10% solution for standard disinfection. Diluted bleach is good for the day of preparation ONLY. Make a new solution each day you perform an operation. 2) Stock bleach is good for one year from the date of production. You can locate the production date on the bottle or case of bleach to determine the date of production. ⚙️



HR Tip of the Month: Outprocessing

All employees leaving ECBC must complete the EPA Form 1132 Civilian Personnel Clearance Form. This form must be completed whether going to another Army Agency or separating from the Government. Upon completion, the form is returned to Sabre Harper. Employees should notify Harper as soon as they know they are leaving. ⚙️

For more information about your HR policies, please contact Engineering Workforce Management Representative **Sabre Harper** at ext. 436-2722.

Security Tip: Lost CAC Card

Government civilian personnel must report to the Civilian Personnel Advisory Center and see the administrative technician for their organization. The approving authority will prepare the appropriate memorandum for reissuance of CAC. Contractor personnel must notify their Trusted Agent of their lost/stolen ID card and obtain a memorandum stating that the contractor has reported the lost or stolen ID card. On Line Appointment System can be accessed through the "CAC Appointment Scheduler" hot link located in the APG Home Page, CAC renewal appointment scheduler or by calling 410-306-2404. ⚙️

ECBC Teams with PM SKOT to Modernize Army's Machining, Welding Systems

In November 2010, the Engineering Edge ran a feature article on a unique collaborative effort between ECBC's Rock Island Design Engineering and Test Facility and the Edgewood Advanced Design and Manufacturing Division (ADM). In an effort to adapt to their customer's needs, the two sites collaborated on a series of programs, establishing a unique and partnered-approach to doing business. It was dubbed "ECBC East & West Collaborating." In particular, the Edgewood and Rock Island teams crafted a seamless workflow, fitting together various project requirements like pieces of a puzzle for the prototype development and testing of the Metalworking and Machining Shop Set (MWMSS). In this issue, the Edge follows up on the MWMSS work.

The Metalworking and Machining Shop Set (MWMSS) is a shelter-mounted shop set in the process of being developed by Product Manager Sets, Kits, Outfits, and Tools (PM-SKOT). The MWMSS's purpose is to modernize the Army's machining and welding systems by replacing 24 outdated, unsafe, and unsupported systems. The MWMSS will have two standard systems: Type I and Type II. The Type I system houses everything necessary to perform the full duties of the 91E Metalworker Military Occupational Specialty in a one-side, expandable 8' x 8' x 20' ISO container. The Type II system expands upon the capabilities of the 91E, and will be fielded when accompanied by a Type I system.

ADM completed the MWMSS prototype in May 2011. The systems were demonstrated at Fort Lee, Virginia during Ordnance Week on May 2-6, 2011. The user community feedback was positive and included several comments and suggestions to improve the systems' capabilities and functionality. Several of the suggestions were incorporated into the systems prior to testing which followed in July.

(Continues on page 7)

Detection Engineering Branch Supports JPM NBC CA Fieldings of M4/M4A1 Joint Chemical Agent Detector



Picture of the DEB team fielding 2,000 JCADs at Ft. McCoy, WI in May 2011.

A major aspect of ECBC's Detection Engineering Branch (DEB) mission is sustainment support of the various chemical defense detection systems employed by the Joint Services, including the M22 Automatic Chemical Agent Detector Alarm

(ACADA), Improved Chemical Agent Monitor (ICAM) and the M8A1 Automatic Chemical Agent Alarm.

In 2009, the Army, Air Force, Marine Corps and Navy began updating their existing detection capabilities by replacing their fielded legacy detection systems with the M4 Joint Chemical Agent Detector (JCAD). The improved M4A1 JCAD is presently scheduled for fielding in FY12. At the request of the Joint Project Manager for Nuclear, Biological and Chemical Contamination Avoidance (JPM NBC CA), the DEB has been supporting the fielding of the new JCAD system to the Joint Services.

DEB has become more involved with the JCAD by supporting the JPM NBC CA New Equipment Training (NET) and Fielding Team with system de-processing and training of the Warfighter on the system. The JPM NBC CA NET and Fielding Team is responsible for on-site training of the Warfighters for newly fielded JPM NBC CA equipment as well as ensuring that the new equipment is complete and in proper condition when handed off to the users. **(Continues on page 8)**

ECBC Engineering Collaboration Results in Miniature, Life-saving Explosives Detector

Engineering's Innovative Development Engineering Acquisitions (IDEA) Team and the Engineering Design and Analysis Team of the Directorate's Advanced Design and Manufacturing Division (ADM) are combining their capabilities to develop a chemical detector that addresses the improvised nature of homemade explosives, allowing for detection of the unsophisticated chemicals used to create them.

"Overseas, people aren't using sophisticated explosives like C4 or RDX. They are using uncontrolled substances that can be found in anyone's bathroom or garage, like hydrogen peroxide or other compounds that can be used in fertilizers," said IDEA Team Leader Jim Genovese.

While in theater, Warfighters come across many unknown substances. Something that bears the physical properties of a simple powder like baking powder can end up being used to create a lethal explosive. Prior to the Engineering teams' collaborative work to develop a more efficient chemical detector for these ad hoc compounds, identifying the potentially lethal substances involved a process that could take hours, and in some instances days. Gathering test samples, remote communication to labs for analysis – by the time it was determined whether or not a substance was harmful, the damage could have already been done.

The development of the Squad Homemade Explosives Kit (Squad HME) allows these unknown substances to be identified in a matter of seconds. The Squad HME is a colorimetric concept that identifies harmful explosives by the homemade chemicals used, allowing for a larger amount of explosives to be detected, hopefully saving the lives of Warfighters. The current design is based on a fielded chemical agent detector called the M256AG, used to detect chemical warfare hazards.

When the Army Technology Office contacted the IDEA team to come up with something to combat Innovative Explosive Devices, Genovese jumped on the challenge.

"IDEA and ADM were not afraid to tackle this challenge, we fielded the M256A2 colorimetric detector and thought we had the experience to do this," Genovese said.

What Genovese and the IDEA Team came up with on paper in 2010, ADM helped make a reality. Lead Engineer for the Squad HME Kit at ADM, Kevin Ridgley, recalls the day when Genovese showed his initial sketches to him.

"The collaborative relationship between ADM and IDEA allowed Jim to talk through his sketches and ideas with our team to determine their feasibility," Ridgley said. "He illustrated the ideas on paper, and then we quickly worked them into several different prototypes."

The square-sized mechanism fits into a pocket and in just 30 seconds can identify if readily-available, uncontrolled substances are being used in mixtures that can cause mass damage. The mechanism has two halves that fold together and click into place. One side is where the unknown substance can be placed and the other side includes the identifying chemicals in capsules. When testing, the two sides will be folded together and reagent ampoules crushed. After 30 seconds, the colorimetric technology will identify whether or not the substance is dangerous or safe. **(Continues on page 8)**



ECBC's Teddy Damour (in red) pictured above with members from his Arabic language class he attended as a part of the RDECOM FAST program.

ECBC Engineer Assists Warfighters in Iraq as Civilian Science and Technology Adviser

For Teddy Damour, a chemical engineer with Edgewood Chemical Biological Center's (ECBC) Research and Technology Directorate (R&T), the most rewarding part of his work at the Center is to see equipment developed by ECBC and the U.S. Army Research, Development and Engineering Command (RDECOM) used in theater, in the hands of the Warfighter. For six months this year, Damour had the opportunity to do just that.

As a part of an RDECOM program called Field Assistance Science and Technology Team (FAST), Damour had the opportunity to work alongside the Warfighters in Iraq as a Civilian Science and Technology Adviser, assisting with several projects and providing on-site solutions to technological issues that arose. His objectives included identifying technology gaps to help improve the survival and well-being of the Warfighter, providing advice to operational commanders on technology, implementing new systems in the operational area and conducting assessments of technologies.

"The project left me with a great feeling of accomplishment once I returned state-side," Damour said.

 The story doesn't end there. To read more about the work Damour did in Iraq to support the Warfighter, visit ECBC's blog at: <http://edgewoodchembio.blogspot.com/>.

ECBC ENGINEER

2011 DESIGN-BUILD-TEST-SUPPORT



AN-M14 Safety Ignition Composition

The successful demonstration of a new ignition system for the AN-M14 Thermate Grenade was completed this year by Engineering's Pyrotechnics and Explosives Branch. The new ignition composition greatly reduces the possibility of injury to U.S. soldiers employing the grenade. Currently the universal 0.5 second fuze employed in the grenade is potentially insufficient to prevent injury to the user.



Decontamination Expeditionary Bag (DEB)

In coordination with the Dismounted Recon Sets Kits and Outfits (DR SKO) program and JPM Protection (JPM-P), ECBC's Decontamination Engineering Branch has developed and assembled Army, Marine Corps, and Navy DEB kits for DR SKO programmatic testing. Each kit is a self-contained, tactical decontamination system specifically designed for each respective service. In December, ECBC will be assembling and delivering 27 additional DEB kits for the DR SKO program. ECBC continues to work with the DR SKO program office, JPM-P, and the services to finalize each kit's configuration. In addition to the DR SKO effort, ECBC and JPM-P have developed, assembled, and delivered 20 DEB kits by request of the Coast Guard.



155mm ITA Smoke Canister

With the support of the Engineering Pyrotechnics and Explosives Branch, several 155mm Improved Terephthalic Acid (ITA) Smoke Canisters were successfully static fired at Dugway Proving Ground, Utah, in an effort to demonstrate their potential as a substitute for white phosphorous. The ITA smoke formulation has a greatly reduced potential for starting secondary fires when the round is employed for screening smoke purposes.



SNIFFER Project



The Department of Homeland Security Office of Health Affairs (DHS OHA) funded ECBC in September 2010 through an Interagency Agreement to develop protocols for testing stationary autonomous chemical point detectors for indoor applications. DHS OHA requested that the existing Sensing Nodes Inform and Facilitate Fast Emergency Response chemical detection system be used as a test case for validating these test procedures. Testing is being performed as a collaborative effort between Engineering and Research and Technology Directorates. Testing is on-going and is expected to be completed by 31 December 2011.



M12A1 Terrain Decontamination Spray Bar



At the request of TACOM-LCMC, the ECBC Decontamination Engineering Branch undertook a project in July 2011 to complete development and testing of a Terrain Decontamination Spray Bar (TDSB) system. The TDSB is to be used in conjunction with the M12A1 Decontamination Apparatus for the dissemination of Super Tropical Bleach and water, and will be designed for mounting to the front of M1083 Medium Tactical Vehicles. Various ECBC branches contributed to the development of the TDSB system, providing design, prototyping, storage, packaging, and technical data. Testing is being conducted at Dugway Proving Ground in 1QFY12. The first ten TDSB systems are anticipated to be fielded to U.S. Army Central (ARGENT) units located in Camp Arifjan, Kuwait in January 2012.



ECBC-RI, TACOM LCMC and ACC Collaborate to Optimize Joint Processes

ECBC-Rock Island (RI), TACOM Life Cycle Management Command, and the Army Contracting Command collaborated to optimize joint processes. ECBC-RI developed process flow diagrams describing the engineering, acquisition, quality, logistics, and other collaborative processes. These flow diagrams will be used as training and job aids for ECBC personnel supporting the organizations.

RING

The Engineering Edge presents just a handful of the “Design-Build-Test-Support” capability milestones from 2011 in this pictorial spread. Visit ECBC’s official Flickr and blog sites throughout the month of December to view additional high-resolution photos and information about these and other significant accomplishments.



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



<http://edgewoodchembio.blogspot.com/>



RASR ATD

Current sensitive site assessment (SSA) and sensitive site exploitation (SSE) operations expose Warfighters to hostile forces and environments

to take and retrieve numerous samples. Currently, the only capability to assess a facility involves troops with “boots-on-the-ground.” A capability is needed to survey sensitive sites remotely through automated means. The Rapid Area Sensitive-site Reconnaissance (RASR) Advanced Technology Demonstration (ATD), coordinated by Engineering’s ATD Branch, will evaluate a contractor developed man-portable or unmanned ground vehicle (UGV) mounted detection system capable of rapid detection and identification of multiple liquid and solid chemicals of concerns (e.g., agents, precursors, degradation products).



2011 Obscuration Nonlethal Engineering Symposium in Baltimore, MD

Engineering’s Obscuration and Nonlethal Engineering Branch participated the Obscuration and Nonlethal Engineering Symposium in Baltimore, MD. The Obscuration and Nonlethal Engineering Branch, under the management of the Joint Program Manager for Reconnaissance and Platform Integration, provided support for the M106. The M106 is slated to reach full rate production in the beginning of 2012, can disseminate its fill quickly and is appropriate for special and indoor operations.



ECBC-RI Continuous Process Improvement Efforts

ECBC-RI Engineering Continuous Process Improvement Efforts established a tracking and reporting system for Engineering Change Proposals (ECPs), Requests for Deviation (RFDs), and Procurement Package Inputs. The average time to complete these ECPs and RFDs decreased from 55 days in FY10 to 20 days in FY11.



HaMMER ATD

The Hazard Mitigation, Materiel and Equipment

Restoration (HaMMER) Advanced Technology Demonstration (ATD) will demonstrate technology suites and tactics, techniques, and procedures (TTPs) tailored to the force structure and needs of our forces. These technologies are incorporated into scaled suites to provide Warfighters with the ability to respond to chemical and biological (CB) threats from crew level through platoon level. These new TTPs and tools may reduce their response time, reduce labor, and increase survivability when faced with CB threats, while reducing wear time in protective clothing and exposure to CB hazards.



Detection Engineering Branch Partners with Japan Ministry of Defense, Improves Military Chemical Operations

ECBC Engineering Directorate Detection Engineering Branch (DEB) and the Japan Ministry of Defense Technical Research and Development Institute, Advanced Defense Technology Center partnered in the research, design, fabrication and testing of a chemical agent detector prototype, the Palm-sized Automated Chemical Detector (PACAD). Physical testing of the PACAD was completed at ECBC in October 2011. Above, DEB Chief Bill Argiropoulos discusses results from a user test in February 2011 with a member of the Japanese user test group.



Packaging Branch Patents Innovative, Military Packing Container

Senior Packaging Specialist Dean Hansen successfully patented a revolutionary, reusable military packing box that will allow for increased durability, longevity and customization to remain concurrent with item design. Hansen’s new polyurethane-lined Styrofoam military packing container is the product of three years of research and testing to design a cheaper option for packing military materials.

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ENGINEERING

2011 DESIGN-BUILD-TEST-SUPPORT CONT.



Individual Protection: JSAM-FW

The Joint Service Respirator Sustainment & Test Technology Branch (JSRSTTB) and the Detection Engineering Branch (DEB) provided technical & maintenance support and hands-on training from 10 June – 2 July to three units from 2nd Infantry Division and three units from 19th Expeditionary Sustainment Command of United States Forces Korea (USFK), 8th Army. Angel Castro, Marlene Johnson, Allen Lai, and Mahlon Monsanto of the JSRSTTB and Kyle Phillips and Keith Flournoy of the DEB worked with unit CBRN personnel to identify common areas of equipment deficiencies and to perform preventative maintenance of over 1,500 fielded CBRN items. Afterwards, the JSRSTTB and DEB worked with the unit to improve operator training to ensure continued quality in CBRN equipment and enhance materiel readiness in the field.



TREB Achieves Testing Breakthroughs

Engineering's Test Reliability and Evaluation Branch expanded their existing capabilities in 2011 to remain competitive in the Defense market and to continue providing support to the Warfighter. To stay ahead of the growing demands for collective protection (COLPRO) equipment qualification tests, the branch developed updated test systems in-house that evaluate the COLPRO capability of the Medium Mine Protected Vehicle and the Joint Expeditionary Collective Protection Family of Systems.



WACS

Engineering's Advanced Design and Manufacturing Division (ADM) worked to develop the Weapons of Mass Destruction (WMD) Aerial Collection System (WACS) for the Defense Threat Reduction Agency. WACS is comprised of two sensor and tracker pods placed under the wings of a shadow Unmanned Aerial Vehicle. The pods can detect, track and collect WMD threats.



J2

In early 2007, ADM partnered with JPM NBC CA in response to an approved Joint Urgent Operation Needs Statement. A portion of this urgent needs statement was the request for a full spectrum, transportable CBRNE system of mission specific kits for dismounted CBRNE reconnaissance. Engineering's ADM Division worked with JPM NBC CA, the Aberdeen Test Center and numerous commercial vendors to build a prototype containerized set for test purposes. After fifteen prototypes, the group has completed all requested systems and has the thirty-seventh set in Bays awaiting delivery to Ft Hood, TX.

2011 MILESTONES IN WORKFORCE DEVELOPMENT & STRATEGY EFFORTS

- On 2 March, the Engineering Directorate hosted a "Women in Science & Engineering Panel Discussion" in honor of National Women's History Month. Over 100 Edgewood Chemical Biological Center (ECBC) employees turned out to participate in the event, with all of the Center's senior leadership in attendance.
- The May 2011 Military Appreciation Day, sponsored by the Engineering Balanced Scorecard strategy, was held 16 May in the Edgewood Theater.
- The Progressive Rotational Inter-Divisional Exchange (PRIDE) Program kicked off its first pilot rotation on 11 May at the monthly ECBC Supervisors Brown Bag meeting. "The PRIDE program exemplifies the kind of practical application and growth initiatives that are offered via the Engineering Balanced Scorecard strategic management process," Roderick A. Fry, Ph.D., ECBC Chemist and a PRIDE team member said.
- In October, the Engineering Directorate sponsored a series of activities to recognize leaders in the organization and those members of the workforce who lead - officially or unofficially - by putting the Army values into practice. As a part of the first-ever Leadership Month, a Leadership Q&A Panel event was hosted on 5 October in the Berger Auditorium. Visit the Engineering SharePoint Leadership Site for additional resources, videos and information regarding leadership development opportunities within the Directorate: <https://ecbcsharepoint.apgea.army.mil/sites/engineering/leadership>
- In November, the Engineering strategy celebrated another success: Develop Leaders Initiative prepared for the final phase in Leadership Program Development.

ECBC-PM SKOT Collaboration

(Continued from page 2) Transportability testing for the MWMSS began in July 2011 at Aberdeen Proving Ground. The MWMSS has passed initial inspection, safety/human factors engineering, physical characteristics, transit drop, rail impact and ground mobility testing. Final inspection was completed the week of September 8th and a final report is in the process of being drafted. The current status is that the systems have passed transportability testing without sustaining damage that reduces the capabilities of the MWMSS. The next step is for a transportability testing review by a team at Natick to determine if the systems will be issued a Shelter Transportability Certification for international transportation.

ECBC's ADM Division is currently
(Continues on page 8)



Women in Science & Engineering
Panel Event - March 2011



First rotation of Engineering PRIDE
participants - June 2011



Military Appreciation Day, sponsored by
Engineering Balanced Scorecard - May 2011



Engineering Edge Welcomes the new Joint Project Manager for Biological Defense (JPM-BD) COL Deanna Won

How did you get started in the military?

During the summer after my junior year in high school, I attended the Summer Scientific Seminar (S3) at the U.S. Air Force Academy and gained an interest in the math and science studies. S3 is a program in which high school students complete math and science classes along with hands-on projects related to a current Air Force issue. This was my first introduction to what a career in math and science would be through the military.

During my senior year of high school I decided I wanted to attend the U.S. Air Force Academy, pursuing a degree in physics. I had a back-up plan to attend U.C. Berkeley in case I did not receive the needed congressional nomination to attend a military academy. However, a nomination came through for me and I was accepted into the U.S. Air Force Academy. There, I received my Bachelors of Science in Physics and thus began my career path in the military.

What has been your career path leading up to your recent posting at Edgewood?

In the military you move around – a lot. My career path has been fairly diverse and provides a background that will, I believe, will lend itself to my current position as the JPM for Biological Defense.

After the U.S. Air Force Academy, I began my career with the Electro-Optics Group in the Avionics Laboratory (now the Sensors Directorate, Air Force Research Laboratory) at Wright-Patterson Air Force Base, Ohio. After that four-year assignment, I moved to the Central Measurement and Signature Intelligence Technology Coordination Office (CMTCO) working initially in electro-optics, and then moving on to serve as the Chief of Counter-proliferation Technology. During this time I worked on the development of innovative sensors to detect chemical, biological, and nuclear warfare agents.

Following my work in electro-optics at CMTCO, I was accepted into the Education with Industry Program and worked with Eastman Kodak Company in Rochester, NY. This was an excellent opportunity to work within a civilian company and learn commercial best practices. After this brief stint at Eastman, I was selected as Military Assistant to the Air Force Materiel Command Chief Scientist where I had the opportunity to gain a broader understanding of the Air Force's science and technology programs.

Next I gained international program management experience working for the Air Force Materiel Command, cooperating with the French on hypersonic and ramjet engine research. From there I moved to Washington, D.C. to be the Director for Air Force Sensor Technology interfacing with Congress to advocate for funding for research in automatic target recognition and early warning technology.

At that point you made the move to D.C. to work for the Air Force Director for Sensor Technology. Is the move to Edgewood next?

Not quite! Just a few more steps. Change is a certainty in the military and is something that I thrive on.

After my work with the Sensor Technology Director I moved west to the Vandenberg Air Force Base in California and worked as the Deputy Chief for Vandenberg Launch Systems. There, my work consisted of helping to direct space launches for organizations like the NRO, NOAA, and NASA.

After that, I was assigned to NATO Supreme Headquarters Allied Powers Europe in Belgium to work in J3 Operations. I was then selected to work as the Executive Officer to Deputy Chief of Staff Operations within the Command Group. Immediately following this position, I moved to Turkey to serve as the Deputy Commander of the 425th Air Force Group providing support to NATO's Air Component Command located there. After my work abroad, I came back to Washington, D.C. again to work at the Missile Defense Agency as the Deputy Program Manager for Space-Based Missile Defense. Following that I moved to the Air Force Office of Scientific Research where I served as the Deputy Director for the Mathematics, Information and Life Science Directorate, and later as the Deputy Director for the International Office.

My last appointment before coming to Edgewood was with Defense Technology Security Administration (DTSA) as the Senior Military Assistant to the DTSA Director.

How will your diverse background and experience help you in your current position as the JPM for Biological Defense?

I have a strong background across science, technology, and basic research. My work with MASINT was my first foray into this important area of chemical and biological defense and provides me with a great working knowledge base. Additionally, I have experience in program management from my time spent as an acquisition officer in the Air Force and at the Missile Defense Agency. (Continues on page 8)

Thank You for Your Feedback!

The Engineering Edge would like to thank those members of the Engineering workforce who participated in our newsletter survey in November. Our goal is to improve the relevance and effectiveness of the newsletter in order to keep the Engineering workforce informed and engaged with the state of the Directorate.

The information gathered will be used to apply enhancements and content shifts to the publication as we look ahead to another year of Engineering Edge newsletter issues. Thank you!



This newsletter was published through the Balanced Scorecard.

For article suggestions, questions or comments please contact

Ed Bowen at:

edward.c.bowen8.civ@mail.mil.

ECBC Engineering Collaboration Results in Miniature, Life-saving Explosives Detector

(Continued from page 3) This particular product went through dozens of prototypes before they decided on the current working model.

"Because of our technologies, we are able to create several versions of a product, test them out and pick one that works most efficiently," Ridgley said.

In June 2011, the Squad HME Kit was successfully used in a Military Utility Assessment by the Maneuver Support Battle Lab at Fort Leonard Wood. The lab found that Warfighters can be instructed on how to use it in about 10 minutes.

The Squad HME Kit currently has a Technology Readiness Level (TRL) of six. This rating places the kit between the technology demonstration and system subsystem development stages. Genovese said by the end of the current Fiscal Year, the Squad HME Kit could earn a TRL level eight, which is the beginning stages of the system test and launch operations stage. A score of eight will allow the Squad HME Kit to be fielded.

During these stages of technology demonstration and subsystem development, the teams are working together to evolve the Squad HME designs in order to create a user friendly product.

"I am confident that the Warfighter can benefit from this technology. The creation of this project took good chemistry and synergy between the IDEA Team and the ADM Division to develop a successful product so fast," Genovese said. Echoing Genovese's optimism for the Squad HME's benefits to the Warfighter, Ridgley described the kit as "a gift."

"This is a very essential product," Ridgley said. "To be able to give Warfighters something that is easy, pocket-sized, self-contained, disposable, cheap and doesn't require any sort of power – that is truly a gift." ⚙️

Detection Engineering Branch supports JPM NBC CA fieldings of M4/M4A1 Joint Chemical Agent Detector

(Continued from page 3) Since March of 2009, the NET and Fielding Team trained over 20,000 personnel on the M4 JCAD and have fielded more than 50,000 systems.

DEB has played an active role in assisting the NET and Fielding Team during 18 on-site fielding missions, assisting with the fielding of more than 21,000 JCAD systems since January 2010. The support DEB provides to the JPM NBC CA NET and Fielding Team has been important in order to meet an ongoing JCAD fielding schedule directed by Army G-8. Representatives from TACOM and the Joint community are also an integral part of the fielding team.

"Support to the JPM NBC CA NET and Fielding Team benefitted me by introducing me to the JCAD system and giving me hands-on experience with the system," DEB Team Member Spencer Phelps said. "Being on the sustainment side of the JCAD program, having hands-on experience with the equipment is invaluable for supporting this system and answering inquiries from the field."

This collaboration has promoted the exchange of information regarding the system and feedback from the users.

"Working closely with the JPM NBC CA strengthens the relationship between our two groups and fosters cooperation and better communication," DEB Team Member Nichole Au commented.

ECBC members that helped make these fielding events possible from the JPM NBC CA NET and Fielding Team include Team Leader Mike Benham, Angel Acevedo, Lester Ashley, Paul Brennan, Aurelio Burton, Ernest Dalle, James Johnson, James Landers, SFC Sharon Palmer-Melendez, George Roberts, Sam Sharps and Joseph Wesley. DEB members that provided supported include Jerry Dietz, Spencer Phelps, Mike Palko, Kyle Phillips, Khoa Nguyen, Minh Nguyen and Nichole Au. Robert McDonel supported from the ECBC Acquisition Logistics Division.

"I especially benefitted from the NET and Fielding Team's direct feedback on the use of the JCAD. They also have a lot of prior military experience and bring a wealth of knowledge to the organization," Phillips stated.

DEB will continue to assist the NET and Fielding Team upon request with the fieldings of new chemical detection systems to the Warfighter in support of the JPM NBC CA's mission to equip the Joint Services with world class chemical detection systems. ⚙️

JPM for BD COL Won

(Continued from page 7) I also feel that my international experience will be a definite asset to this position. I would like to continue JPM-BD's effort in collaborating with the U.S. interagency and expand cooperation with international partners. As we seek out solutions for CB issues that are becoming increasingly complex, it will be important to develop a broad range of strategic partnerships.

What is something about you that others might not know?

I enjoy photography, taking pictures of life's special moments. I used to do gymnastics, I have been a fitness instructor for eight years and I've been playing the piano since I was three-years old. I also enjoy learning languages and studying different cultures. ⚙️

MWMSS (Continued from page 2)

creating a level III Technical Data Package (TDP) which will be used to either build the systems within the Government or procure the systems from private industry. The level III TDP is expected to be completed by the end of 2011. Following completion of the TDP, the prototype MWMSS will be shipped to Edgewood Chemical Biological Center-Rock Island (ECBC-RI) for a Physical Configuration Audit (PCA) on the MWMSS systems. While the systems are at ECBC-RI, the ECBC-RI engineers will complete the vendor item drawings that outline the MWMSS tool load. ⚙️