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BRAC



2005 to 2011



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The U.S. Army Garrison Aberdeen Proving Ground takes advantage of several outlets, in addition to the APG News, to keep its audience informed.

The installation's Facebook page is a lively, interactive forum where visitors can find out everything from directions to area trivia, residents keep each other informed and leadership shares information and answer questions. Also enjoy photos of what's going on all over the installation, or share your own photos. Visit <http://www.facebook.com/APGMd>.

As APG News reporters cover the events in and around APG, they post hundreds of event photos weekly to Flickr. To view and download these photos, visit <http://www.flickr.com/photos/usagapg/>.

Another way to stay informed is the APG Live blog, where local news and opinion, features and editorials are shared. Visit <http://apg.armylive.dodlive.mil/>.

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APG NEWS



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Aberdeen Proving Ground Transformation

APG Transformation Office

In December 1917, President Woodrow Wilson established Aberdeen Proving Ground upon closure of the Army's existing test site at Sandy Hook, N.J., eight months after the United States entered into World War I.

This site was chosen as a location for the Proving Ground because of its proximity to existing manufacturing and industrial centers, and because the climate permitted year-round testing activities.

Situated at the top of the Chesapeake Bay in northeast Maryland, the Proving Ground encompasses more than 72,000 acres of land and water in two areas, separated by the Bush River.

The Edgewood Arsenal was also opened in 1917 as the Army's chemical weapons development and testing site. In 1971, APG and Edgewood Arsenal were merged, and established the Edgewood Area of Aberdeen Proving Ground.

The first ammunition round was fired in bitterly cold weather on January 2, 1918, from a Model 1905 three-inch field piece now on display in the APG museum. The original mission of proof testing field artillery, weapons, ammunition, air defense guns, trench mortars and railway artillery was quickly expanded to include an Ordnance School and the test and development of small arms.

BRAC, an acronym for base realignment and closure, is the DoD's process for assuring that the country's defense infrastructure can most efficiently and effectively support its forces, increase operational readiness, and facilitate new ways of doing business.

As a result of the recommendations of the 2005 BRAC Commission, a number of longtime Proving Ground residents have moved to new locations, while at the same time, many

more have relocated here. On the growth side of this equation, diverse elements from New Jersey, Virginia and elsewhere have combine to form the Army's Center for Excellence for C4ISR and the Center for Excellence for Joint Chemical/Biological Defense. A new campus houses many of the sophisticated technologies and processes that provide enhanced capabilities to tomorrow's Army.

The Edgewood Area has seen the development of the Joint Chemical/Biological Center as a component of Chem/Bio defense research, development and acquisition missions moved here from Washington DC, Virginia and Texas. While not all these changes took place under BRAC, they serve to keep the Proving Ground at the forefront of research, development, engineering, testing and training well into the 21st century.

Today, Aberdeen Proving Ground is recognized as one of the world's most important research and development, testing and evaluation facilities for military weapons, equipment and personnel.

Aberdeen Proving Ground is the Defense Department's Center for Excellence for land combat systems, vehicles, Soldier systems and chemical and biological defense. Home to more than 80 tenant organizations, U.S. Army Garrison APG is much like a municipal government, maintaining roads, buildings and utilities while providing services ranging

from public safety to child care to computer networks.

APG tenants perform critical missions in direct support of America's Global War on Terrorism and employ a diverse workforce comprised of more than 13,000 civilian government employees, 6,500 contractors, and 4,000 military personnel, making the Proving Ground the largest employee in Harford County.

Continuing through this document highlighting Aberdeen Proving Ground's BRAC story, many of the incoming organizations have taken the time to put together a specific BRAC story pertaining to their individual organizations and how this BRAC will enhance their missions. Both the Philadelphia District and the Baltimore District of the United States Army Corps of Engineers (USACE) have also contributed insight into the work completed for APG's transformation.



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APG BRAC Facts

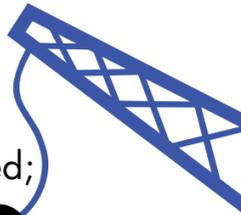
\$ 1 Billion worth of design and construction

1 First BRAC project completed in Maryland – 715 Gate, May 2009

2.8 MILLION square feet of new construction – comparable to **14** Aberdeen Walmart Supercenters **12** Aberdeen High Schools **8** Harford Community Colleges

2.5 MILLION square feet of new parking
 **(5,500 Acres)**

146 buildings demolished;
837,000 Gross Square Feet



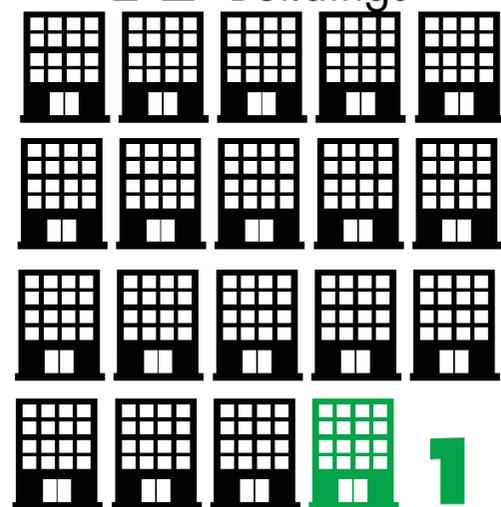
Approximately **50,000** (over **9** miles) of linear feet of roadway improvements/new roadways

 **8,200** Positions
 Net gain of **6,500**

749,000 cubic yards or **202,000** tons of soil moved for BRAC projects

28 Swing Space Buildings for ADVON support with over **2,000** personnel

19 Buildings



18 New
1 Re-use

Our Outgoing Organizations

APG Transformation Office

BRAC 2005 entailed a large-scale move of organizations. Predominately the moves focused on are those organizations that joined Team APG and moved onto the installation.

However, it is important to remember that while APG gained a number of new positions and organizations, APG also experienced a loss of organizations.

The Ordnance Center and School (OC&S) ended its 92-year history here at APG with BRAC moves to Fort Lee, Va. beginning in May of 2009.

The transition was completed in phases with the departure ceremony marking the move of the final battalion, the 143rd Ordnance Battalion, on July 29, 2011.

Relocating to Fort Lee will give Soldiers the opportunity to complete their Advanced Individual Training (AIT) in brand new state-of-the-art facilities and equipment.

The move was bittersweet as APG is sad to see OC&S depart, but understands the need for the consolidation of training at Fort Lee, knowing our Soldiers will be provided better training tools, preparing them for deployment.

The move of the school marked a significant change in demographics



Photo by Yvonne Johnson

DPW's Bob Dennison and Shaun Blische (in bucket) return to the task of removing unit emblems after handing off part of the Ordnance Center sign to coworker Tony Vincenti.

for APG. Just over 4,000 personnel were relocated.

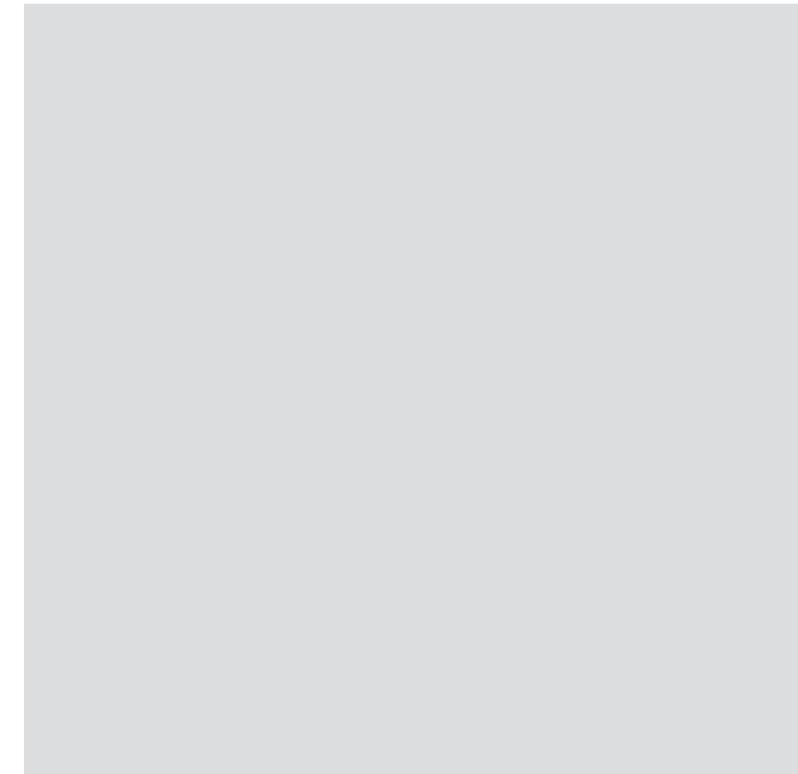
This number included permanent staff positions held by civilian, military and contractors, but it also includes the students. Military moved from APG to include the permanent staff and students was roughly 3,700 Soldiers.

This transition drastically decreased the Soldier population on post. The incoming organizations hold their highest numbers in civilian and contractor personnel; making the new post-BRAC demographic predominantly civilian with contractors at a close second, and only about 10 percent military.

The larger (macro) objects were moved first to execute the plan to build the new museum around the larger pieces rather than struggle with finding a way to get them inside the building after completion.

Another element of APG's BRAC moves included the move of Army Environmental Command (AEC). The move included the loss of about 340 personnel to include civilian, military and contractor positions. AEC began departure in the end of 2009 and officially cased their colors in May 2010.

The phased transition allowed for AEC to continue working its mission during the relocation. The command moved to Fort Sam Houston in order to consolidate with higher IMCOM headquarters there.



Access Control Points – Gates 715, 22 and 24

715 Gate

Scope: Design and construction of Gate 715 (MD Route 715) improvements to include earthwork, utilities, additional entry lanes, Visitor Control Center, truck inspection center and canopy and embedded traffic control/security devices.

Project amount: \$21.6 million

Completion: Aug. 31, 2009

Contractor: Facchina Construction Company, Inc.

Challenges team faced: No significant challenges. This was the first BRAC turnover for APG Garrison. This gate was updated and opened to the public on Aug. 31, 2009, for use.

How challenges were overcome: Close coordination with all PDT members.

Gates 22 & 24

Scope: Design and construction of Gates 22 and 24 improvements to include earthwork, utilities, additional entry lanes, Visitor Control Center, canopy and embedded traffic control/security devices.

Project amount: \$9.5 million

Completion: Dec. 21, 2009

Contractor: Better Built

Challenges team faced: These gates were updated and opened to the

public on Dec. 21, 2009, for use. Minor work is still being completed on roads and drainage.

How challenges were overcome: Design Build construction, close coordination with all PDT members.

Infrastructure – Roadwork

Scope: Construction of new improvements and revisions to roadways and intersections and traffic signal improvements.

Project amount: \$11.9 million

Completion: Expected completion October 2011.

Contractor: Daisy Construction

Challenges team faced: Some of the challenges the team faced on a project such as this included the extensive roadway construction in a congested environment. With an older installation, “unknowns” under the ground surface – such as utilities presented a challenge for execution.

How challenges were overcome: The project development team (PDT), including USACE, APG Garrison, contractor, designer, and subject matter experts focused their efforts on successful execution while minimizing impacts to project scope, schedule & budget. (Mike Hitchings, project manager, USACE)

Noteworthy items to report to higher leadership: Road upgrades significantly increased the ability of the APG Garrison, including the new tenants – a significant increase in volume, to reach their destinations more efficiently.

BRAC provides opportunity to give back to vets

By **Nicole Cawthern**
APG Transformation Office

Faced with handling a large influx of furniture left by departing organizations due to base realignment and closure (BRAC), the Directorate of Public Works Environmental Compliance Division orchestrated a dual donation/exchange of property to benefit a local charity.

Vickie Venzen and Maia Kaiser, both DPW environmental protection specialists, with the Pollution Prevention Program, are currently conducting environmental inspections of buildings for reassignment involved with BRAC.

During their inspections they observed large amount of excess

furniture needing a home. To ensure this furniture was reused and not disposed of, they researched approved charitable organizations needing furniture.

As a result, the Chesapeake Health Education Program, a nonprofit corporation which provides transitional housing for homeless veterans located on the grounds of the VA Hospital at Perry Point, received excess couches, tables, chairs and other furniture and appliances from the departing 143rd Ordnance Battalion.

Items belonging to the unit were donated and items belonging to the garrison were hand-receipted and transferred from the Post Housing Office.



Photo by Yvonne Johnson

Soldiers from the 143rd Ordnance Battalion load excess furniture no longer needed by the unit just days before departing APG for Fort Lee, Va., in July 2011.

U.S. Army Corps of Engineers (USACE) Baltimore District Contribution

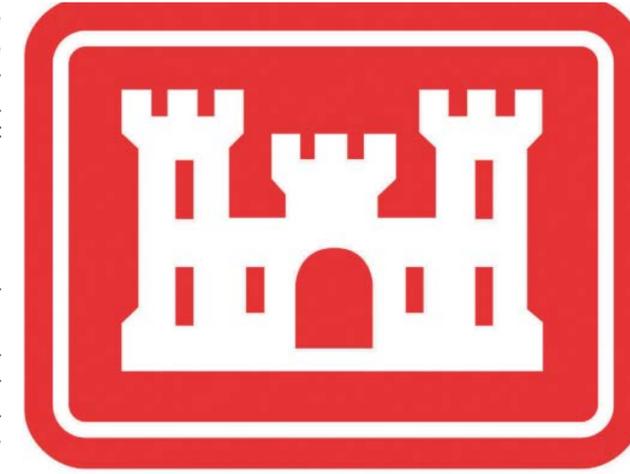
In 2005, the Department of Defense was given the difficult task to reorganize itself to more efficiently and effectively support our forces, increase operational readiness and facilitate new ways of doing business.

As a result of decisions in the BRAC law, the Baltimore District was assigned over \$5 billion of construction projects to manage in only five years; more than any other district in the nation.

This included projects at Aberdeen Proving Ground such as the U.S. Army Test and Evaluation Command, the Non-Medical Chemical Biological Facility, and new roads and intersections, among others.

Through their efforts, the Baltimore District contributed significantly to the economic stability of the region at a time when our region's economy needed it most.

A significant amount of the Baltimore District's program was executed by American small businessmen and women, including businesses



owned by disabled veterans, translating to thousands of American jobs.

“Using the IPO [Integrated Program Office] concept has given our team the opportunity to provide customer focused, forward placed project delivery teams to support the BRAC mission,” said Gary Schilling, IPO program manager,

U.S. Army Corps of Engineers. Working on BRAC projects of such significant scope and magnitude is a once in a career opportunity to provide new facilities for the Army and the warfighter on a grand scale and to have a significant positive impact on the surrounding communities for decades to come.”

BRAC Facts for NAB Program

- Carpeting – 220,000 square feet
- Ceiling tiles - 63,000
- Florescent light bulbs - 10,100
- Gallons of wall paint used - 820
- Amount of data cabling – 420,000 linear feet or approx 81 miles
- Number of new chairs – 1,433
- Amount of dirt moved - 67,000 tons
- Approximate number of new parking spots - 970
- New Paving - 11 acres
- Total Manhours – 527,150 (0 lost time accidents, no serious injuries or fatalities)
- Number of cranes - 36

The C4ISR BRAC perspective

BRAC 2005 relocated five C4ISR organizations from Fort Monmouth, N.J. and other sites to Aberdeen Proving Ground, Md.: • the U.S. Army Communications-Electronics Command and its associated contracting center; • the U.S. Army Communications-Electronics Research, Development and Engineering Center; • the Program Executive Officer for Command, Control, Communications-Tactical; and • the Program Executive Officer for Intelligence, Electronic Warfare and Sensors.

This move established a C4ISR Center of Excellence at Aberdeen Proving Ground to focus life cycle management activity in command, control, communications, computers, intelligence, surveillance and reconnaissance as well as accelerate the transition to the transformational objective of Network-centric Warfare.

The BRAC Commission stated that the solution to the significant challenges of realizing the potential of Network-centric Warfare for land combat forces requires integrated capabilities in C4ISR technologies.

This action preserves the Army's life cycle management business model by closely collocating research, development, acquisition, and sustainment functions.

The Commission was also directed by the DoD to ensure the relocation was conducted in a manner that did not shortchange ongoing C4ISR support and services to Warfighters in the field.

This was no small task since the closure and realignment process required the movement of some



C4ISR photo

The campus was designed around a domain concept, where personnel belonging to different organizations are co-located according to the functional areas to which they belong.

7,260 workforce positions, 120 laboratories, and 80,000 pieces of equipment (equating to 950 moving truck loads).

The Army C4ISR Center of Excellence is comprised of independent and interdependent organizations that are collectively responsible for the lifecycle of C4ISR systems.

The team originates from a partnership between the U.S. Army Materiel Command and the Assistant Secretary of the Army for Acquisition, Logistics and Technology.

It is this partnership and collaboration which enables life cycle

support for C4ISR systems. Together, these organizations develop, acquire, provide, field and sustain world-class C4ISR systems and battle command capabilities for the joint Warfighter.

The C4ISR Materiel Enterprise will optimize support for Warfighters and other customers by synchronizing materiel lifecycle functions in support of the Army Force Generation process.

Organizations will link together in effective and efficient mission domains that will pull together acquisition, project management,

research and development, and sustainment functions across the life cycle of systems and equipment.

Where once the organizations were spread over 75 buildings at Fort Monmouth in addition to locations at Fort Belvoir, Va., Fort Huachuca, Ariz., and Redstone Arsenal, Ala., the five organizations are working together in a close-knit environment on the C4ISR Center of Excellence Campus with no more than 14 state-of-the-art buildings within walking distance of one another

The C4ISR Center of Excellence

Continued on page 10

Command, Control, Computers, Communications, Intelligence, Surveillance, Reconnaissance (C4ISR) Phase 1

Scope: Before construction began, this area consisted of approx 40-50 WWII wood barracks. Demolition of those barracks began on Mar 17, 2008, with the first piece of steel placed on Jul 8, 2008.

This campus consists of nine facilities - Ground Based Radars, Multi-Intel, Sensors (GMS) Lab, GMSTower, Secure Storage facility, Fabrication, Integration and Fielding Facility (FIF), Auditorium, HQ East, HQ West, Mission Training Facility (MTF), Command and Control/

Communications Systems, Network & Transport (C2/CNT) West. It is 1.5M square feet of new administrative and laboratory space. It is the western half of a high-tech, electronics-communications Research and Development campus. Phase 1 Campus houses approximately 5,000 employees.

Project amount: \$541.3M in Sept. 07

Contractor: Tompkins Turner Grunley Kinsley JV

Command, Control, Computers, Communications, Intelligence, Surveillance, Reconnaissance (C4ISR) Phase 2

Command and Control/Communications Systems, Network & Transport (C2/CNT) East

Scope: Approx 650,000 square feet of new high-tech, electronics-communications R&D facility. The facility will house 1,800 employees. Old facilities in front and to the left of facility were demolished to place a geothermal well field and to become parking area. There is also a separate, high-bay facility that serves as the C2/CNT East Lab Annex.

Project amount: \$124 million

Contractor: James G Davis Construction, Co., Rockville, Md.

Consolidated North

Scope: 140,000 square feet of new integration, fabrication and research and development facility. This building includes a Prototype Integration Facility (PIF) which takes the technology developed in laboratories and makes it battlefield-ready. Ultimately, this is the intermediary between the lab and the battlefield, making modifications to existing technology in order to make items more enhanced and appropriate for our warfighters in specific conditions.

Project amount: \$25.4 million

Contractor: James G. Davis Construction Co., Rockville, Md.

Joint SATCOM Engineering Center (JSEC)

Scope: Approximately 98,000 SF of satellite engineering, research and development laboratories along with about six acres of satellite antennas and dish arrays.

Project amount: \$23.4 million

Contractor: Endicott Constructors Corporation, Wakefield, Mass.

Building 5100

Scope: Approximately 109,000 square feet of adaptive re-use space for integration, fabrication and R&D. This is the only re-use project as part of BRAC 2005 for APG.

Project amount: \$16.7 million

Contractor: Forrester Construction, Rockville, Md.

Integration Facility

Scope: Approximately 85,000 square feet - integration & fabrication facility. This project ultimately serves as warehouse space.

Project amount: \$12.4 million

Contractor: Amatea/Grimberg, Leesburg, Va.

Continued from page 8

Campus is an \$800 million construction project that encompasses 2.5 million square feet of office, laboratory and administrative space for more than 7,200 personnel. The campus was designed around a domain concept, where personnel belonging to different organizations are co-located according to the functional areas to which they belong. This organization is meant to encourage collaborative innovations and streamline services. The idea is to create synergy among the organizations by centrally locating them with other organizations working on different phases of the same or similar weapon systems.

The C4ISR leadership saw the move to APG as not only an opportunity to configure new buildings for maximum efficiency, but to maximize organizational synergy as well.

The intent is to position functional areas, or domains, together to better track products through their entire lifecycles, from concept to combat.

These domain structures are built around C4ISR systems versus organizations, so the concept has placed personnel working on similar projects in the same locations. There are 13 domains total, covering the full-spectrum of C4ISR support.

For example, all personnel who work with sensors are co-located so the sustainers can have dialogue with the research and development experts.

This provides better communication avenues between the organizations and ultimately delivers a better product to the Warfighter faster. Co-location allows them to rapidly share ideas and lessons learned, while efficiently executing processes to increase the delivery of products to the Warfighter.



C4ISR photo

The campus is an \$800 million construction project that encompasses 2.5 million square feet of office, laboratory and administrative space for more than 7,200 personnel.

“Of course, maturing the C4ISR Center of Excellence and ensuring the success of it, will involve a concerted effort to instill and maintain a cultural change. Rather than thinking organizationally, people will have to focus on providing the best C4ISR systems to the Warfighter in the quickest way possible.”

The main intent for the move and the creation of this collaborative environment was to achieve faster, more coordinated and cost-effective support to the Warfighter. The C4ISR Materiel Enterprise now has the opportunity to speak with one, more coordinated voice.

A good example of this collaboration is the Army Force Generation (ARFORGEN) Integrated Process Team (IPT), made up of members of all of the organizational elements of the C4ISR Materiel Enterprise all working toward a common purpose.

This IPT provides a model of what the C4ISR Materiel Enterprise is striving to become across all C4ISR elements with its Domain construct. ARFORGEN IPT members put aside their organizational banner and instead focus on providing the best systems the quickest way possible to the Soldiers that are in the operational units. It provides a mechanism for quickly identifying areas that need additional command emphasis or rapid decisions affecting fielding operations across all components of the Army.

Another example takes advantage of CERDEC's proximity at APG to the U.S. Army Test and Evaluation Command (ATEC).

In a recent effort involving a robotically-controlled vehicle, CERDEC was able to work closely with ATEC to develop and assess this technology more quickly than might have been the case in the past.

Of course, maturing the C4ISR Center of Excellence and ensuring the success of it, will involve a concerted effort to instill and maintain a cultural change. Rather than thinking organizationally, people will have to focus on providing the best C4ISR systems to the Warfighter in the quickest way possible.



Communications-Electronics Command (CECOM)

The Communications-Electronics Command (CECOM) can trace its roots to the establishment of a Signal Corps training facility and radio research and development laboratory at Fort Monmouth, N.J., in 1917.

In 1929, the Signal Corps' Electrical Laboratory of Washington and the Signal Corps' Research Laboratory of New York merged with the Radio Laboratories at Fort Monmouth to form the consolidated "Signal Corps Laboratories." In 1949, the Signal Corps Center was established and consolidated many existing Signal functions.

The Army disbanded the technical services and established the Electronics Command (ECOM) at Fort Monmouth in 1962. This CECOM predecessor was charged with managing Signal research, development, and logistics support.

As a subordinate element of the newly formed Army Material Command (AMC), ECOM encompassed the Signal Research and Development Laboratories, the Signal Materiel Support Agency, the Signal Supply Agency and its various procurement offices, and other Signal Corps logistics support activities.

ECOM was fragmented in January 1978 in order to form the following three commands and one activity: The Communications and Electronics Materiel Readiness Command (CERCOM), the Communica-

tions Research and Development Command (CORADCOM), the Electronics Research and Development Command (ERADCOM), and the Avionics Research and Development Activity (AVRADA).

In the end, AMARC was a failed experiment. Reassessment of the changes at Fort Monmouth, begun in August 1980, concluded that, while the emphasis on research and development had increased for the better, there was also much duplication of effort.

Thus, on March 1, 1981, AMC combined CERCOM and CORADCOM to form the new Communications-Electronics Command (CECOM), effective May 1, 1981.

The long history of advances in communications and electronics systems will be continued at Aberdeen Proving Ground, and a new history will begin to take shape, created by the dedicated CECOM employees who planned and executed this tremendous move.

Although the relocation entailed significant challenges, our personnel realized the stakes and rose to the challenge, just as they and their predecessors had with every conflict they supported since WWI. Building on the strong foundations laid at Fort Monmouth, CECOM will use its respect for the past and dedication to the Warfighter to build a new community committed to innovation and technology here at APG.

Program Executive Office Command, Control and Communications-Tactical (PEO C3T)

The PEO C3T provides Soldiers with the computer systems, radios and communications networks they require to succeed in full-spectrum operations.

The organization develops, acquires and fields to all Army units a range of products including specialized software applications, generators, radios, computers, servers and communications systems; and integrates these and other systems together so they function seamlessly.

These systems allow commanders on the battlefield to share information and collaborate more effectively, increasing mission success and saving lives.

The PEO also provides on-site training and support for the systems worldwide. The Program Executive Officer for C3T is Brig. Gen. N. Lee S. Price.

During its transition to Aberdeen Proving Ground, from Fort Monmouth, N.J., and other locations, the PEO provided uninterrupted, transparent support to deployed, deploying and returning forces. An organization of more than 1,700 employees, approximately 1,000 were working on APG as of August 2011. The workforce continues to grow. A few personnel will be relocating to Maryland in September and approximately 150 vacancies will be filled in the future. However, one element of the organization, the Project Manager for Mobile Electric Power, will remain at Fort Belvoir, Va.

In its relocation to APG, the PEO's components have been consolidated in four large administrative buildings, down from the 30 smaller buildings the organization inhabited at Fort Monmouth.



U.S. Army photo

A tactical communications node is shown during the Warfighter Information Network-Tactical Increment Two Production Qualification Test-Government at APG last summer. WIN-T Increment Two will be placed in Soldiers' hands in an operational environment during the Initial Operational Test and Evaluation at White Sands Missile Range, N.M., in April. Fielding will begin in fiscal year 2013.

This is already improving communication and yielding process and management effectiveness. The PEO has been reorganized in a revolutionary mission-related domain structure that is already improving collaboration and efficiency. These domain structures are built around missions versus organizations, so the concept has placed personnel working on similar projects in close proximity.

The Command, Control, Communications Network Transport (C2/CNT) domain, which is the primary mission of PEO C3T, is also its central location.

All of the organizations supporting this mission – PEO C3T as well as other C4ISR Materiel Enterprise elements – have been consolidated into two buildings, instead of each organization and smaller sub-organization residing in their own buildings. Research and development, and contracting communities now reside in the same space as PEO C3T engineers. Co-location allows these individuals to rapidly share ideas and lessons-learned, while efficiently executing processes to increase the delivery of products to the Soldier.

PEO C3T is also synchronizing efforts with its testing, logistics, intelligence, surveillance and reconnaissance, and research and development partners on post as it also builds partnerships with corporations outside APG's gates.

PEO C3T turned in 30 buildings at Fort Monmouth. The organization shipped 1,468 pieces of equipment to APG, turned in 2,585 pieces of equipment to property disposal, and shredded 113,744 pounds of material. Fort Monmouth closed on Sept. 13 after 86 years of service.

Program Executive Office Intelligence, Electronic Warfare & Sensors (PEO IEW&S)

Since the organization's inception in 1987, success at PEO IEW&S has been achieved through its ability to rapidly transform requirements and requests from the field into reality.

With 20 Soldiers and 200 civilians, supported by about 160 contractors the PEO began providing the force protection and situational awareness tools that Soldiers needed at the time.

Some of the earliest fieldings included Firefinder radars and GPS receivers for Operation Desert Storm. Fast forward to 2011 and PEO IEW&S is still on the forefront of acquiring, fielding and sustaining the latest technologies utilizing a force of approximately 2,000 including more than 600 deployed in theater providing direct support to Soldiers in Iraq and Afghanistan with a combination of more than 110 programs of record and quick reaction capabilities.

The PEO for IEW&S provides Soldiers with affordable, world class Sensor and Electronic Warfare capabilities enabling rapid situational understanding and decisive action. It is made up of a team of dedicated professionals driving innovation and exceptional value in understanding and shaping the battlespace. The Program Executive Officer for IEW&S is Brig. Gen. Harold Greene, who leads the team of seven project/product managers.

PEO IEW&S products are utilized for targeting, situational awareness, force protection and reconnaissance, surveillance and target acquisition (RSTA). These critical systems are integrated into the network's layers and enable per-



PEO IEW&S photo

A Soldier utilizes the Long Range Scout Surveillance System (LRAS3) to detect, locate and identify targets.

sistent surveillance, allowing the Joint Warfighter to control time, space and the environment, while greatly enhancing survivability and lethality.

PEO IEW&S completed the transition of operations from Fort Monmouth, N.J.; to Aberdeen Proving Ground, Sept. 15, in accordance with the 2005 Base Realignment and Closure directives.

Throughout the transition period, PEO IEW&S Soldiers, government

civilians and contractors worked through the significant challenges involved in transitioning operations from Fort Monmouth to APG without skipping a beat in providing superior technology and support for our Soldiers in the field.

Among the effects of the BRAC relocation is a reduction in footprint and consolidation of workforce locations. PEO organizations operated out of 12 buildings across Fort Monmouth and the Charles Woods area at the beginning of the BRAC

process, now those organizations primarily operate out of three neighboring locations within the new state-of-the art C4ISR complex. By housing the various organizations within PEO IEW&S in one complex (that had been scattered throughout Fort Monmouth) they are now more closely aligned. Additionally, operating within the complex along with the PEO's C4ISR partners will allow for greater collaboration amongst the organizations.

More than 725 Soldiers, government civilians and contractors will ultimately be relocated from Fort Monmouth to APG with the first member having arrived in Maryland on July 28, 2008. In addition to moving personnel, the organization also undertook the successful logistic transition of approximately 4,500 pieces of equipment. Relocating organizations included the PEO IEW&S headquarters, Project Manager Airborne Reconnaissance & Exploitation Systems (PM ARES), Project Manager Electronic Warfare (PM EW), Project Manager Navigation Systems, Project Manager Distributed Common Ground System-Army (PM DCGS-A) and Product Manager Robotics and Unmanned Sensors (PdM RUS) as well as Product Manager Radars (PdM Radars).

The employees of PEO IEW&S' Project Director Army Special Programs Office (PM ASPO) and Project Manager Night Vision Reconnaissance Surveillance Target Acquisition (PM NV/RSTA) will remain at Fort Belvoir and Project Manager Aircraft Survivability (PM ASE) as well as Product Manager Integrated Tactical Systems (PdM ITS) will remain at Huntsville, Ala.

U.S. Army RDECOM CERDEC

The U.S. Army Communications-Electronics Research, Development and Engineering Center (CERDEC), formerly the Communications-Electronics Command (CECOM) RDEC, was stood up on Oct. 1, 2002 when AMC Commander Gen. Paul J. Kern directed the establishment of a Research, Development, and Engineering Command (RDECOM).

Prior to the establishment of CECOM in 1981, the organization was part of the U.S. Army Electronics Command (1962) and the U.S. Army Signal Corps labs before that.

The RDECOM mission was to field technologies that sustain America's Army as the premier land forces in the world; thus, operational control of R&D activities transferred from CECOM to RDECOM, effective May 1, 2003. The command became official March 1, 2004, when the Department of the Army approved the RDECOM concept plan.

Distinct from the organizational changes over the years, the science and technology mission now assigned to CERDEC is marked by a long history of technical accomplishments.

These include the first "moon bounce," developments in frequency hopping techniques and deployment of key systems for the field, ranging from the GVS-5 laser rangefinder, to night vision/sensor and IED/ landmine detection technologies, to our current work in cyber technologies and handheld/smartphone capabilities

CERDEC's mission is "to develop and integrate Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Technologies that enable information



CERDEC photo

CERDEC vehicles prepare to roll out in 2009 for a mobile assessment of the 2013 Modular Brigade Combat Team architecture during its annual C4ISR & Network Modernization integrated capabilities event at Lakehurst Naval Air Station in 2009. CERDEC sees the move to APG as not only an opportunity to configure new facilities for maximum efficiency, but to maximize organizational synergy as well.

dominance and decisive lethality for the networked warfighter."

Its vision is "To employ the imagination and innovation of this nation's brightest professionals to provide America's brave sons and daughters with the most effective solutions to ensure mission success and their safe return home."

CERDEC's most pervasive competencies are in computer science, and engineering (computer, electrical, mechanical, chemical, and industrial), with increasing competencies in materials, biometrics, and cyber operations.

CERDEC strives daily to make a positive difference in the daily

lives of Soldiers by conducting applied research, advanced technology development, systems and sustainment engineering. To date, CERDEC has received more than 1200 patents awarded, more than 100 R&D awards and 12 Army Greatest Invention Awards.

The U.S. Army Research, Development and Engineering Command communications-electronics center (CERDEC) was one of five C4ISR organizations relocated from Fort Monmouth, N.J., to Aberdeen Proving Ground, Md., as part of the 2005 Base Realignment and Closure law.

CERDEC spent most of FY09/10

developing integrated move plans for the workforce and laboratory facilities from Fort Monmouth, N.J. to Aberdeen Proving Ground, Md. In all, CERDEC had 74 laboratories which were moved and reconstituted at Aberdeen Proving Ground occupying 1,276,731 total square feet of space.

The design, fabrication, build, and reconstitution of the laboratories were predicated on highly integrated and well connected (IT infrastructure) concepts allowing the maximum flexibility for reconfiguration and collaboration amongst science and technology efforts and customer projects.

On Aug. 15, 2011, C4ISR COE senior leaders certified to the senior mission commander at Fort Monmouth that all CERDEC mission functions have transitioned to Aberdeen Proving Ground.

BRAC has had a tremendous, but mostly positive, impact on CERDEC. This is due, in part, to an Integrated Workforce Strategy with four goals: Have the right skills, at the right time, at the right place; attract and retain the right staff; motivate and develop the right skills; and connect and enable.

Each of the initiatives allowed CERDEC to execute workforce planning, career development and performance management strategies to meet the demands of the move to APG through the increased alignment between workforce development and workforce planning.

The strategic workforce planning process provided managers with a basis for making decisions on recruiting, workforce assignment and employee development.

The establishment of a defined process and clear accountabilities for maintaining an expertise database provides managers access to a larger pool of employees than within their branch, division or directorate.

This initiative included developing a common workforce planning process documenting the professions, domains and disciplines required for current and forecasted positions.

The impact of this effort was multifold. It assisted in reducing the amount of time and revenue required to identify recruitment needs; increased integration between the expertise management framework, workforce planning goals and employee development; increased

customer satisfaction by finding the most appropriate expertise to solve customer problems; reduced response time to changing customer needs through accelerated staffing processes; reduced contractor costs through the location of internal expertise in other divisions and directorates; provided increased visibility of open job roles and future project assignments through a single channel accessible to managers and employees; and improved organizational success by having the right employees with the right competencies at the right time.

Onboard numbers were expected to plummet with the BRAC move so increasing workforce strength was crucial to mission continuity. To help alleviate potential attrition due to BRAC, CERDEC established a Human Capital Cell, or HCC, within its Employee Resource's Office to strategically address anticipated human resources challenges.

The purpose was to improve HC practices and processes for better strategic alignment and to develop methods of data capture and analysis to enhance HC talent management. Findings from the HCC began creating "cyclical" links between higher education outreach, recruitment, on-boarding, and workforce development.

Ultimately, CERDEC leadership sees the move to APG as not only an opportunity to configure new buildings for maximum efficiency, but to maximize organizational synergy as well.

It has been a catalyst for change that will allow CERDEC and the Army to pursue transformational objectives, accept new missions and to consolidate or co-locate common business functions to provide better level of services at a reduced cost.

ATEC BRAC perspective

As a result of BRAC 2005, components of the Army Test and Evaluation Command (ATEC) located in Alexandria, Va., and at Fort Belvoir, Va., were directed to relocate to Aberdeen Proving Ground Md., and to consolidate with elements of the command already stationed there.

It was Directed Recommendation #136 in the law which put into motion a chain of events that continues to impact the command.

From the standup of ATEC in 1999, which consolidated all testing (developmental/operational) and evaluation into one command, ATEC Headquarters, Army Evaluation Center (AEC) Headquarters (a subcommand of ATEC), and eight AEC directorates operated from leased space in the National Capitol Region (NCR).

AEC's three other directorates, and a small contingent of ATEC Headquarters staff, were located at APG.

Other ATEC elements at APG were Developmental Test Command (DTC) Headquarters (a subcommand), and Aberdeen Test Center (ATC).

While the law directed that the



relocation occur by the end of September 2011, Maj. Gen. Genaro Dellarocco, ATEC commanding general, accelerated the time table.

When he assumed command of the organization in October 2010, he immediately established ATEC Headquarters at APG and moved a small command staff into building 4311.

Also, he moved up the report date for all ATEC employees coming to Aberdeen via transfer-of-function (TOF) by six months. The new report date was April 4.

In total, 573 authorizations transferred to Aberdeen, 184 military, 287 civilian and the remainder contractor worker equivalents. Plan-

ning the move, assumptions were made that all 184 military would transfer, or the position filled during the next rotational cycle, and only 30 to 40 percent of civilians would relocate. When employees reported on April 4, the actual number of civilians transferring was 121.

Since the new ATEC Headquarters building still was under construction, arriving employees were placed in several buildings on APG.

Most went to Bldg. 4316, which ATEC acquired from post as swing space. Some went to Bldg. 4104, a trailer acquired from post. The rest filled in buildings where ATEC elements already resided – Bldg.

4311 (where ATEC established its headquarters in October 2010), Bldg. 4125 (AEC), Bldg. 4120 (AEC), and Bldg. 314 (DTC),

With the BRAC-mandated transfer, Dellarocco seized the opportunity to begin a transformation of ATEC into a leaner, more-efficient organization with the goal of delivering capability to the warfighter better, cheaper and faster.

Per BRAC, he consolidated the ATEC headquarters staff with the DTC headquarters staff, easily eliminating nearly 60 positions vacant because incumbents chose not to relocate. He also reassigned test managers from DTC to AEC, an effort to beef up the test expertise of the command's evaluators and improve integration and coordination between developmental testing and operational testing.

This also will allow early identification of those specific tests whose results will support safety and program decision making while maintaining an acceptable level of program risk. A result of the transformation will be the stand-down of DTC and casing of its colors later this year.

Army Test and Evaluation Command (ATEC)

Scope: Construction of a 142,595 square foot headquarters and administration facility at Aberdeen Proving Ground, to support the relocation of Headquarters U.S. ATEC and AEC from activities currently held in Alexandria, Va.

Project amount: \$55.5 million

Contractor: Foulger-Pratt, Rockville, Md.

Challenges team faced: This project has gone through many design iterations. All of which have added to the complexity of defining the final product. Early in the programming process, the Army had authorized \$57 million with a total facility scope of 195,000 square feet. After many revisions and coordination the final product was a success that met

ATEC's expectations. Once construction started, many of the challenges were due to joint occupancy, which means concurrent usage of space by both the contractor and government to enable early start of fit out activities – such as furniture installation, IT, etc.

How challenges were overcome: The challenges were "overcome" by creating a trusting and working relationship with Foulger Pratt, ATEC, Directorate of Public Works and other stakeholders. Everyone was made aware early of the obstacles that we had to get through to ensure the successful implementation of BRAC, and the combined efforts of the team lead to a project that exceeded expectations.

Noteworthy items to report to higher leadership: This project was designed and constructed as a LEED Gold Facility.

Another ongoing initiative the general implemented which should yield increased savings is to raise the certification requirements for ATEC System Team Chairs (who conduct test planning) to include Lean Six Sigma Black Belt certification.

Team Chairs now will conduct continuous process improvement on actual test procedures while maintaining safety and quality of the data collection.

Ultimately the goal is to certify the entire workforce in Lean Six processes, either as Green Belts or Black Belts, to continuously assess and improve upon all ATEC processes.

A new command, a new way of doing business, and a new building! To accommodate the move, a new ATEC headquarters building was designed and built. Located along Aberdeen Boulevard on a 20-acre site, Bldg. 2202 offers a striking



ATEC photo

The U.S. Army Test and Evaluation Command conducts test and evaluation of rapid material equipping initiatives in support of the Global War on Terrorism.

contrast to the historic stone and 1950s block structures which dot the surrounding area. The contract for the nearly \$50 million facility was awarded in March 2009, and

employees began moving in by mid-August 2011. Featuring a three-story atrium, the building was constructed to the LEED (Leadership in Energy and Environmental Design) Gold

standard which provides a healthier work environment, contributing to higher productivity and improved employee health and comfort. It also will substantially reduce ATEC's energy use, both immediately and well into the future.

While BRAC created the impetus to retool the command, it also has brought ATEC and one of its primary customers, the C4ISR community at CERDEC, PEO-I, PEO-C3T and IEWS together on the same installation.

This co-location will offer many opportunities to collaborate for the benefit of each other, and for the Army. Being able to visit a laboratory and see the equipment first hand will change the dynamic of evaluation.

Close interaction among the new APG communities and deep understanding of new technology earlier by the evaluation community should reap many benefits as we move forward.

ARL BRAC perspective

As the Army's corporate, or central laboratory, ARL provides the underpinning science, technology, and analysis that enable full-spectrum operation. Its unique facilities and dedicated workforce of government and private sector partners make up the largest source of world-class integrated research and analysis in the Army.

By combining its in-house technical expertise with those from academic and industry partners, ARL is able to maximize each dollar invested to provide the best technologies for our Soldiers.

ARL consists of six directorates and the Army Research Office. These six directorates, each with presence on APG, focus on technology areas critical to strategic dominance across the entire spectrum of operations.



The Computational and Information Sciences Directorate conducts scientific research and technology focused on information processing, network and communication sciences, information assurance, and battlespace environments, and advanced computing that create, exploit and harvest innovative technologies to enable knowledge superiority for the Warfighter.

The Human Research and Engineering Directorate pursues scientific research and technology directed toward optimizing Soldier performance and Soldier-machine interactions to maximize battlefield effectiveness, and to ensure that Soldier performance requirements are adequately considered in technology development and system design. Through its

Sensors and Electron Devices Directorate, ARL provides scientific research and technology in electro-optic smart sensors, multifunction radio frequency, autonomous sensing, power and energy, signature management, directed towards reconnaissance, intelligence, surveillance, and target acquisition, fire control, guidance, fuzing, survivability, mobility and lethality.

ARL's Survivability/Lethality Analysis Directorate is the premier source of expertise in survivability, lethality and vulnerability assessments for senior leaders, developers and evaluators. SLAD helps ensure U.S. personnel and equipment survive and function effectively in hostile environments.

The Vehicle Technology Directorate addresses propulsion, transmission,

aeromechanics, structural engineering, and robotics technologies for both air and ground vehicles while the Weapons and Materials Research Directorate advances scientific research and technology in the areas of weapons, protection and materials to enhance the lethality and survivability of the nation's Warfighters.

In July 2011, ARL began welcoming employees relocated from Glenn Research Center in Cleveland, Ohio, and NASA-Langley, Va., in its newly-constructed Vehicle Technology Laboratory.

The new facility consists of six laboratories dedicated to expanded research, development, testing and evaluation of propulsion, structural, aero-elasticity and autonomous control of air and ground vehicle systems. With state-of-the-art capabilities leveraged from the Heat Engine Systems Altitude Test Facility, and in flow physics, integrity and durability, mechanical components, high temperature and universal drive, ARL provides the DoD with a multi-component capability to simulate exact dryness levels, pressures and temperatures in flight conditions by creating altitude conditions, removing exhaust and simulating aircraft power loads and rotor blades.

Pooling propulsion, intelligent systems, platform and logistics expertise inside APG's research dominance is only fortified by existing contributions VTD scien-

tists have made to the Army over the past 30 years: they've developed and tested computer codes that give helicopter pilots better and faster predictions of landing conditions; were among the first to prove that split-torque technology would become a revolutionary way to increase transmission power in the Apache helicopter without increasing the transmission's size or weight; and they've led research that establishes science and technologies used to broaden the implementation of condition-based maintenance to diagnose mechanical problems and predict the potential failure of parts or components.

ARL has consistently provided the enabling technologies in many of the Army's most important weapons systems.

Technology and analysis products are moved into Army's Research, Development and Engineering Centers and to other Army, DoD, government, and industry customers. ARL's programs are focused on key science and technology groundwork that will enable the transformation of the Army into a more versatile, agile, survivable, lethal, deployable and sustainable force.

Army Research Laboratory – Vehicle Technology Directorate (ARL-VTD)

Scope: Construction of research, development, test and evaluation (RDT&E) laboratories and facilities and associated general administrative and special purpose space to support the relocation of ARL-VTD activities currently held in Hampton, Va., and Cleveland, Ohio.

Project amount: \$35 million

Contractor: Walbridge Aldinger, Detroit, Mich.

Challenges team faced: This building faced many challenges due to the fact that the design build equipment package was a follow on contract that directly impacted the design bid build construction contract of the main facility. "which came first – the chicken or the egg scenario," meaning the equipment spaces in the laboratory were designed before we had a clear idea of exactly what the actual equipment was going to look like. There was quite a bit of calculated risk in the integration of equipment that was to be fully designed in the future, which meant the laboratories needed to be flexible to accommodate change. (Mike Anderson, project manager, USACE)

How challenges were overcome: We were fortunate to have an AE (Jacobs Engineering) that had the knowledge and wherewithal to assist USACE and the Army Research Lab (ARL) through the design and construction process of this highly technical facility.

Noteworthy items to report to higher leadership: From the outside this appears to be a small unassuming 35,000 square foot building, but inside it is a highly technical unique laboratory that will be an important test facility for ARL's engineers and scientists.

Army Research Laboratory Heat Engine System Altitude Test Facility (HESATF)

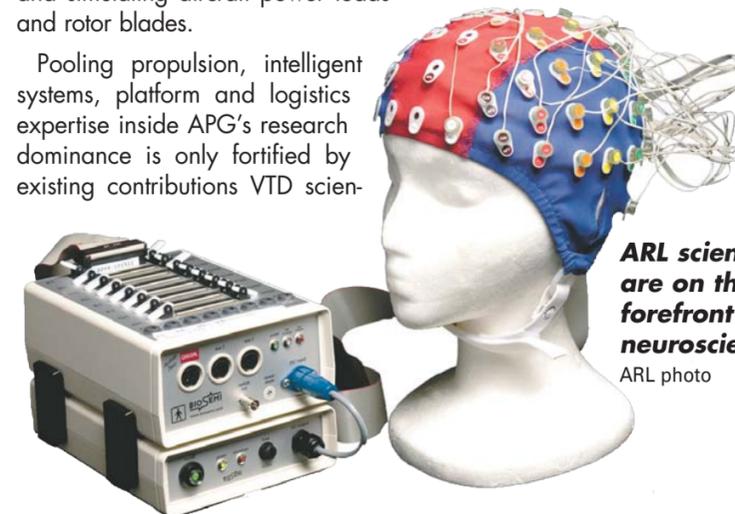
Scope: Construction of research, development, test and evaluation (RDT&E) laboratories and facilities and associated general administrative and special purpose space to support the relocation of ARL-VTD activities currently held in Hampton, Va., and Cleveland, Ohio.

Project amount: \$15 million

Contractor: Whiting Turner

Challenges team faced: The challenge was to create unique custom equipment and have it designed, constructed, tested and installed so ARL can successfully continue their mission.

How challenges were overcome: Project is still in progress and is expected to be completed by December 2011.



ARL scientists are on the forefront of neuroscience.
ARL photo

JPEO-CBD BRAC perspective

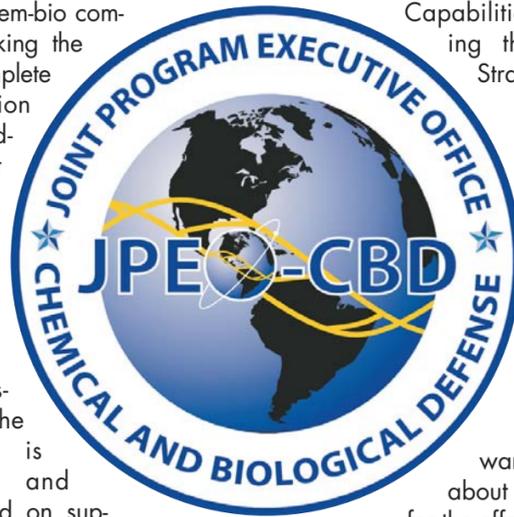
The Joint Program Executive Office for Chemical and Biological Defense moved to APG from Falls Church, Va.

The 75,000 square foot, Non-Medical Chem-Bio Facility will support the BRAC move of approximately 250 personnel from the JPEO-CBD as well as 67 positions from U.S. Air Force Chemical – Biological Defense Systems Branch Brooks City Base, Texas, (formerly the 649th Aeronautical Systems Squadron) and 31 movers from the Defense Threat Reduction Agency's Chemical and Biological Technologies Directorate in Ft. Belvoir, Va.

This will be a joint administrative facility with general administrative, special space, conference/meeting/training rooms, storage, and technical areas for chemical biological defense activities. The addition of the 57 Air Force positions and the small team from DTRA to the JPEO-CBD will create a synergy in

the APG chem-bio community, making the effort to complete the mission of defending against chemical and biological threats much more efficient.

The mission of the JPEO-CBD is clear-cut and concentrated on supporting our warfighter in the battle against chemical and biological warfare: To Provide Research, Development, Acquisition Fielding and Life-Cycle Support of Chemical, Biological, Radiological and Nuclear Defense Equipment, Medical Counter-measures and Installation and Force Protection Integrated



Capabilities Supporting the National Strategies.

The concept of chemical and biological weapons is not new and stems back to far before our time.

Modern warfare brought about the concerns for the effects and mass casualties associated with these type of agents; and today we face asymmetric threats that are even harder to predict. This is the evolving landscape of weapons of mass destruction, and as the means and methods evolve, so does the Joint Program Executive Office, Chemical Biological Defense.

Public Law 103-160 was passed by Congress in 1994 with the intent to consolidate and make joint, all services efforts on chemical and biological defense research, development, testing, evaluation, and procurement of chemical and biological products/equipment.

It assigned responsibility for overall coordination and integration of the chemical and biological defense program to a single office within the Office of the Secretary of Defense and designated the Army as the Executive Agent for the program. Although the funding and responsibility for integration was elevated to higher level leadership, the services still executed the research and programs through joint committees.

In an effort to find a better way to execute what was intended to be a true joint program, the DoD announced April 25, 2003, the formation of the JPEO-CBD, under the

Army's Acquisition Executive.

The JPEO-CBD was formed from the Army's existing Program Executive Office, Biological Defense and the Navy, Air Force, and Marine chemical and biological defense program offices.

The headquarters was located in Falls Church, Va. The main focus is providing joint service advanced development, procurement, and life cycle support for chemical and biological equipment to Soldiers, Sailors, Airmen, and Marines. This move streamlined chemical and biological acquisition and yet took advantage of the unique capabilities each military service offers.

The JPEO-CBD is now the Joint Services single focal point for research, development, acquisition, fielding and life-cycle support of chemical and biological defense equipment and medical countermeasures.

Today within the JPEO seven joint project managers lead, manage and direct the acquisition and fielding of chemical and biological detection and reconnaissance systems, individual and collective protection systems, decontamination systems, information management systems, medical devices, drugs and vaccines, and installation and force protection systems.

Located throughout the United States, each Joint Project Management Office leverages talent and expertise from across the services under a single chain of command, providing the best chemical and biological defense technology, equipment and medical countermeasures at the right cost, at the right time and at the right place.

Since being establishment in 2003, the JPEO-CBD has fielded over 21 million items of the above equipment/products.

The JPEO-CBD has also been an organization of change. With the economic climate and the Global War on Terrorism, the JPEO-CBD has remained on the cusp of innovation and change.

The JPEO-CBD leadership knew that the BRAC move to APG would be met with anxiety and uncertainty and also recognized the sacrifices asked of the workforce in relocating our operations to Edgewood.

It was clear from the beginning that this move is more than packing office equipment; we are asking people to relocate homes and families and that by itself is a tremendous challenge for our personnel.

We tried very hard to answer all of the questions, provide as much assistance as possible and even incentivized the workforce to stay with the JPEO and make the transition to Edgewood.

Although we were accustomed to our way of doing business in Falls Church, our organization's fundamentals remain the same. We maintain our work ethic and continue to focus on meeting the needs of the Warfighter. During the transition, our workforce has been fully operational and continued to maintain our level of service to the mission.

The JPEO-CBD has again risen above the current challenges, while moving our headquarters and one Joint Project Manager Office to our new home at APG. By being here today and continuing to support our mission to mitigate risk and protect the Warfighter and our nation, is a testament to our success. We will continue this success through our partnerships, our professionalism, and ongoing culture to strive for excellence in all that we do. We will continue our motto of "one mission and one team".

Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD)/ Non-Medical Facility for Chemical and Biological Defense

Scope: Construction of a 75,000 square foot joint administration facility for Chemical Biological Defense Activities to support the relocation of JPEO (Joint Program Executive Office) Headquarters currently held in Falls Church, Va.

Project amount: \$27 million

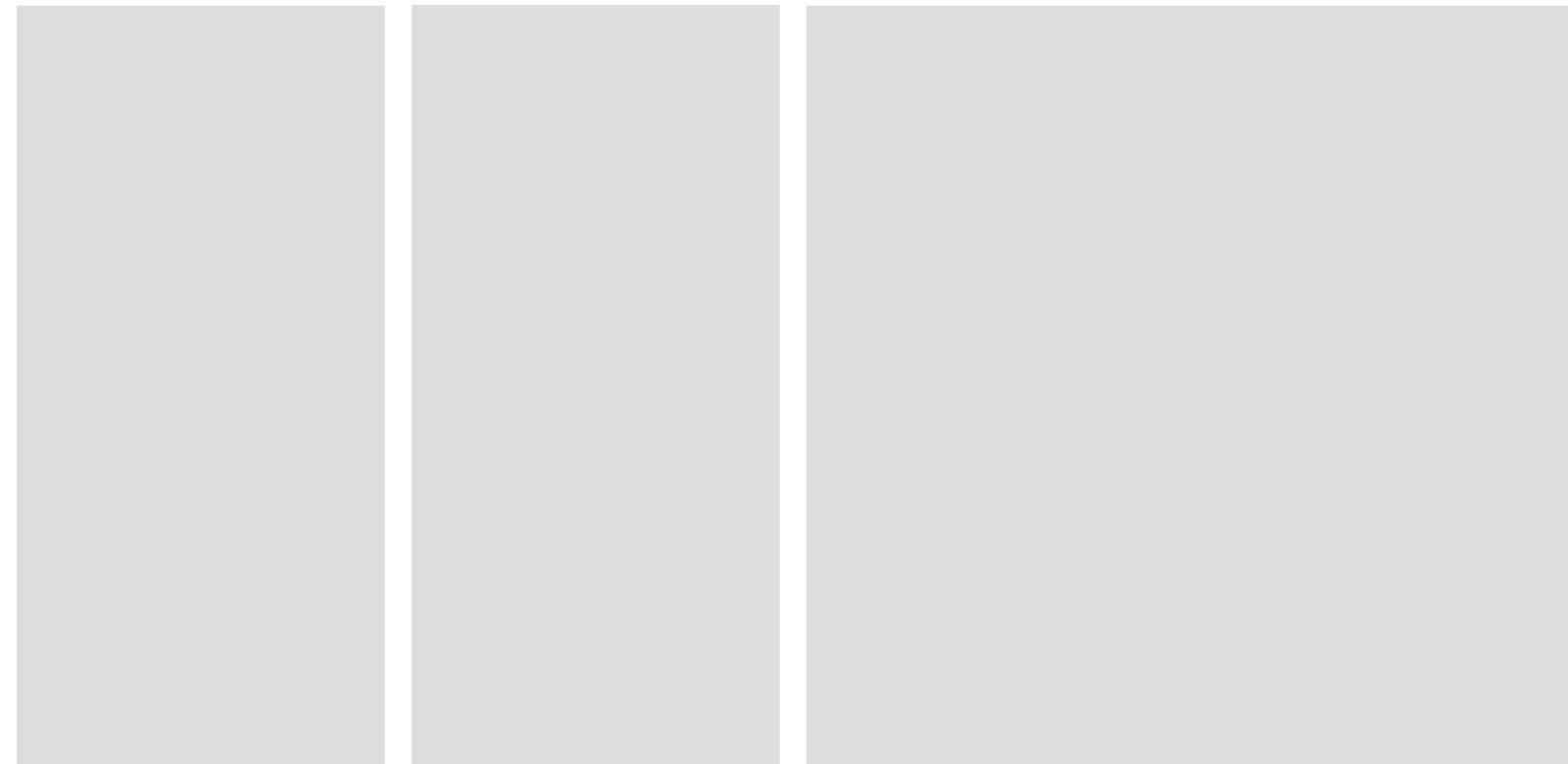
Contractor: Bradley/Nason, Wilmington, Del.

Challenges team faced: A stop work order was issued by the Maryland Department of the Environment (MDE) because the storm water pond criteria were not met. Previous attempts to maintain a lower level through pumps and tanker trucks had failed. Additionally, the pond and sediment trap had been reworked and expanded with additional filtration for a couple of months but reoccurring rain events could not be controlled. Rain-For-Rent (water clarifier) was put on site as a solution to an otherwise potential lengthy pond re-design and approval process. Floccing tubes

were placed to filter sediment pond effluent to meet MDE requirements. Once construction started, many of the challenges were due to joint occupancy, which means concurrent usage of space by both the contractor and government to enable early start of fit out activities – such as furniture installation, IT, etc.

How challenges were overcome: The challenges were overcome by creating a trusting and working relationship with Bradley Nason, the Directorate of Public Works and other stakeholders. Everyone was made aware early of the obstacles that USACE had to get through to ensure the successful implementation of BRAC, and the combined efforts of the team lead to a project that exceeded expectations.

Noteworthy items to report to higher leadership: This project was designed as a LEED Silver facility; however the end product that was constructed was LEED Gold because of the efforts of the construction contractor.



MRICD BRAC perspective

The U.S. Army Medical Research Institute of Chemical Defense (USAMRICD) is the nation's leading science and technology laboratory in the area of medical chemical countermeasures research and development.

The institute's mission is three-fold: to discover and develop medical countermeasures to chemical warfare agents for the U.S. military and U.S. citizens; to train and educate personnel in the medical management of chemical casualties; and to provide subject matter expertise in developing Defense and National policy and in proper crisis management.

The USAMRICD actually has a long history at the Edgewood Area of Aberdeen Proving Ground, tracing its beginnings to elements of the Army Medical Department that were responsible for defense against the chemical weapons used during World War I.

The earliest laboratories were first under the direction of the Bureau of Mines (1917) and later under a

part of the Gas Defense Service of the Army Medical Department (1918).

In October 1922, the Medical Research Division was organized at Edgewood Arsenal.

This division was formed to study the pharmacological actions of chemical threat agents,

to develop treatments for gassed casualties, and to provide the information obtained to Army Medical Corps personnel.

During World War II, increased emphasis was placed on finding methods to prevent and treat chemical casualties. This emphasis continued after World War II, when the Soviets seized stocks of German-developed nerve agents and



appropriated the technology for their manufacture.

In 1968, the U.S. Army Biomedical Laboratory, as the institute was then named, moved into its current research and headquarters building and, in

1979, added a modern veterinary medicine building containing state-of-the-art facilities for all aspects of animal care, including complete surgical and resuscitative capabilities.

On July 1, 1979, the U.S. Army Biomedical Laboratory became a part of The Office of the Surgeon General and the U.S. Army Medical Research and Development Command (USAMRDC). Although

formal command relationships with the Chemical Systems Laboratory and the U.S. Army Materiel Development and Readiness Command were discontinued, close support characterized the relationship after the Biomedical Laboratory embarked on a mission in support of the Army Medical Department's research, development, test, and evaluation program for medical defense against chemical agents.

On 11 May 1981, the U.S. Army Biomedical Laboratory was redesignated the U.S. Army Medical Research Institute of Chemical Defense.

The 2005 BRAC law created Centers of Excellence within the U.S. Army Medical Research and Materiel Command (USAMRMC). The objective was to maximize scientific output by concentrating the skill sets necessary for each center of excellence mission in one physical location.

As a result, the USAMRICD was designated the Center of Excellence for medical chemical defense research, and the Division of Bio-

Medical Research Institute for Chemical Defense (MRICD)

U.S. Army Medical Research Institute for Chemical Defense (MRICD) & Chemical Biological Defense Laboratory (project manager Mike Hitchings)

Scope: Design and construction of a 526,255 square foot facility to house the U.S. Army Medical Research Institute for Chemical Defense. Major features include command and administration headquarters offices, research laboratories, vivarium, chemical casualty training facility, central utility plant, site work and utilities. This project is located north of N. Kings Creek Road along Ricketts Point Road in the Edgewood Area. This project is conjunctively funded with Medical Military Construction funds and a very small portion of BRAC funds, therefore, it is not subject to the BRAC Law completion date of Sept. 15, 2011.

Project amount: \$280M (\$262M DODM, \$18M BRAC)

Contractor: Early Site Work – Total Engineering, Lanham, Md. /Main Package - Clark Construction Group, Bethesda, Md.

Challenges team faced: The team was challenged to get this project awarded and moving as quickly as possible. As a result, the design package was listed for contract solicitation prior to reaching 100 percent completion. Additionally, the early site contractor failed to successfully complete their work.

How challenges were overcome: The project development team (PDT) addressed the changes in the design package through intense coordination with the contractor and coordination of construction changes. The results were significant impacts to project contingencies. Early site contractor work was provided to another contractor, Clark Construction Group, for successful completion.

Noteworthy items to report to higher leadership: This project is on schedule for completion on Sept. 24, 2013. The BRAC mission is complete.

Chemical Medical Research at the Walter Reed Army Institute of Research (WRAIR), which also conducted research in support of the medical chemical defense research program, was transferred to the USAMRICD.

The transfer of the WRAIR division to the institute did not result in a change to USAMRICD's mission or in the acquisition of new functions that required specialized space. However, the institute gained 40 authorizations and 49 requirements as a result of the transfer, and was faced with the problem of accommodating additional employees and laboratory functions in its existing space.

Coinciding with BRAC were efforts by the USAMRICD to gain funding for a new facility.

The institute's current facilities were aging and not able to fully accommodate emerging technologies or its expanding mission.

Additionally, over the years, as the research and training programs grew, smaller facilities had been constructed or refurbished, such that the USAMRICD campus had grown to include 14 dispersed buildings.

The addition of personnel under BRAC further supported the argument for a new facility, and in 2005, the USAMRICD gained approval for a replacement facility and the initial planning began. The result of such planning was the design for an integrated and flexible 526,000 square foot multistory chemical containment medical research facility for USAMRICD, which is scheduled to be completed in 2013.

The institute was to receive \$27M in BRAC funds to prepare for the new personnel and equipment. However, while several options for accommodating the BRAC personnel were considered, including the



Photo by Darrell Jensonis

Fluorescent immunohistochemistry is used by scientists at the USAMRICD to identify brain injury following nerve agent exposure.

construction of a separate building, in the end an interim solution was approved to adjust existing renovation plans, already funded, to accommodate the transfer.

Specifically, non-laboratory space was renovated into laboratory space and non-laboratory functions were moved out of the institute's primary research facility.

In all, approximately 1,240 square feet of laboratory space was renovated at a cost of about

\$200,000, and 334 square feet of administrative space was renovated to create offices for the BRAC personnel at a cost of \$45,000.

As a result of this solution, the BRAC funding of \$27 million was instead integrated into the costs of the USAMRICD replacement facility.

By April 2010 three principal investigators and one research technician had relocated to the USAMRICD, leaving 45 govern-

ment and military positions to be hired or requisitioned.

The PIs that joined the institute's staff and the remaining authorizations to be filled not only supplement the current expertise of USAMRICD's behavioral, biochemistry, and toxicology programs, but will also provide room for growth in the research program with the acquisition of specialties, such as physical chemistry, not already represented among the institute's workforce.