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Chesapeake Science & Security Corridor

By Karen L. Holt

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SECURITY CORRIDOR

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Aberdeen Proving Ground (APG) is located at the top of the Chesapeake Bay, midway between Baltimore and Philadelphia. The installation and its current 69 tenants serve as Harford County's top employer and a leading economic engine generating approximately $3 billion in revenue annually. The 72,000-acre installation, comprised of equal parts water and land, was established in 1917 and has served historically as a test and evaluation site. Military training students have comprised a significant portion of APG's composition as the Army Ordnance Center and School housed 4,000-5,000 students for incremental training exercises.

Aberdeen Proving Ground is located at the head of the Chesapeake Bay in the northeastern corridor of Maryland.

Harford County, which is host to APG, has a population of approximately 260,000. A diversified workforce offers a mix of manufacturing and distribution among defense contracting and other technical and professional services. Like its northeast neighboring county, Cecil, both jurisdictions have out-commuting populations of nearly 50 percent.

The BRAC 2005 decision brings significant growth to the APG installation and its surrounding community, resulting in the largest economic boon since World War II. The following 14 actions impact command, directorate or activities from eight states for the BRAC implementation deadline of September 15, 2011:

- Relocating the Communications-Electronics Life Cycle Management Command and the Communications-Electronics Research, Development & Engineering Center from Fort Monmouth, NJ, to APG;
- Relocating and consolidating Information Systems Development and Acquisition from Redstone Arsenal, AL, to APG;
- Relocating procurement, management/support for depot level reparables from Ft. Huachuca, AZ, to APG and designating them as Inventory Control Point functions;
- Relocating Army Test & Evaluation Command Headquarters and Elements of the Army Evaluation Center from Alexandria, VA, to APG;
- Relocating the Army Research Laboratory Vehicle Technology Directorate from Columbus, OH/Langley, VA, to APG;
- Relocating the Army Research Institute Human Systems Research from Fort Knox, KY, to APG;

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Aberdeen Proving Ground (APG), nestled at the top of the Chesapeake Bay in Maryland, will transform its 1917 installation with significant gains in research, development, testing and evaluation as a result of BRAC 2005. This article focuses on how the post landscape will become a technology campus for homeland security while outside the installation gates, a region collaborates in preparation for the largest economic impact to the community since World War II with the arrival of nearly 30,000 scientific and technical civilian jobs converging from eight states.

- Relocating the Joint Program Executive Office for Chemical and Biological Defense from Falls Church, VA, to APG;
- Relocating Air Force Non-Medical Chem-Bio Defense Development & Acquisition from Brooks City Base, TX, to APG;
- Relocating Chem-Bio Defense Research, Defense Threat Reduction Agency from Fort Belvoir, VA, to APG;
- Relocating Medical Chemical Defense Research from Walter Reed Army Institute of Research from Forest Glen Annex to APG;
- Relocating the Ordnance Center and School from APG to Fort Lee, VA; and
- Relocating the Army Environmental Command from APG to Ft. Sam Houston, TX.

These actions result in 8,500 direct jobs to the installation, mostly civilian DoD; a significant decrease in the installation's military presence with the loss of the ordnance school and center; and an exponential growth of a contractor tail (defense contractors that will follow the mission move and relocate within the region) which is conservatively estimated at 2:1. Overall, the BRAC 2005 decision results in nearly 30,000 direct, indirect, and induced jobs to the APG community.

APG's transformation, expedited by BRAC, brings RDT&E to heightened levels amidst $1.3 billion in construction of new facilities and generating contract revenues in excess of $15 billion annually. A knowledge economy will transform the campus of the APG installation and exponentially expand the defense contractor base throughout our growing defense community.

This expedited growth has been addressed through an aggressive DoD plan including phased early moves and temporary (swing) space, with 350 positions relocated by end of 2008; 1,250 by November 2009; a total of 1,800 projected by year end 2009, and an additional 4,000 projected for 2010. An estimated 1,600 vacancies are projected for FY 2011 just for functions of Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance, better known as "C4ISR". Modification of existing installation facilities, relocatables, and shared space among defense contractors in the Enhanced Use Lease (EUL) facilities, which are privately developed facilities on a federal enclave that provide negotiated, in-kind services to the installation with additional projects and fees paid to the local jurisdiction in lieu of taxes, have accommodated these moves to date.

COMMUNITY RESPONSE

Prior to the BRAC 2005 announcement, the Harford County Executive appointed a BRAC Planning Advisory Committee (BPAC), a 24-member county-based workgroup to develop a BRAC action plan with timelines, budgets, and benchmarks for successful BRAC implementation related to infrastructure, transportation, workforce and education, and public health and safety. Harford County also coordinated efforts with surrounding jurisdictions to market the region in identifying the location of Aberdeen Proving Ground.

Simultaneous to the BPAC's early work, Harford County, in collaboration with its neighboring jurisdictions of Cecil County, Baltimore County, and Baltimore City, under the guise of the "Chesapeake Science and Security Corridor," applied for and was awarded approximately $1.8 million in funding by the Office of Economic Adjustment (OEA) to study key infrastructure issues outside the installation's gate and coordinate marketing efforts related to BRAC. A BRAC manager was hired in October 2006 and a regional BRAC office was established at the Higher Education Advanced Technology Center (HEAT) located about four miles from the installation, and easily accessible from US Interstate 95.

The Chesapeake Science & Security Corridor (CSSC) formalizes its collaborative efforts with a Memorandum of Understanding (MOU) signing in April 2007.

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The BRAC manager was given regional working parameters under supervision of Harford County's Office of Economic Development due to Harford's role as lead agency on the federal grant. The BRAC manager and office were initiated to serve in a regional capacity to

CSSC Named Active Base Community of the Year by the Association of Defense Communities: (L to R) : Tim McNamara, Deputy Garrison Commander, APG; David Craig, Harford County Executive; Karen Holt, BRAC Manager, CSSC; Rob McCord; Harford County Attorney; Jim Richardson, Harford County Director of Economic Development, and Vernon Thompson, Cecil County Director of Economic Development.

The Chesapeake Science & Security Corridor was named 2009 Active Base Community of the Year for its strong partnership between the post and the community.

The Chesapeake Science and Security Corridor was now functioning as a consortium, comprised of eight jurisdictions in three states with various representatives (planners, economic developers, garrison and government officials, etc.) meeting monthly to discuss BRAC related issues in the region.

administer grant funding and provide oversight for initial study projects such as a demographics study and capital facilities inventory, to serve as a liaison to Harford's BPAC, and to support development of neighboring jurisdictional BRAC plans.

This coordinated effort grew as the magnitude of growth under expedited timelines was fully realized and an amendment to the grant expanded staffing to include a BRAC coordinator and an administrative assistant to focus on marketing and outreach, and additional contractual services dollars to plan and implement a variety of studies. Collaboration expanded to include strategic partnerships as we looked to neighboring jurisdictions in Pennsylvania and Delaware and strengthened our regional footprint through partnership efforts with the Baltimore Metropolitan Council, Wilmington Area Planning Council, the Economic Alliance of Greater Baltimore, and the Greater Baltimore Committee, ultimately defined by an approximate 45-minute commute radius to the installation.

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In April 2007, the Chesapeake Science & Security Corridor (CSSC) signed a formal Memorandum of Understanding among its member jurisdictions and strategic partners symbolizing commitment to work collectively throughout the BRAC implementation process. The Aberdeen Proving Ground Garrison serves as ad hoc military advisor for the Consortium.

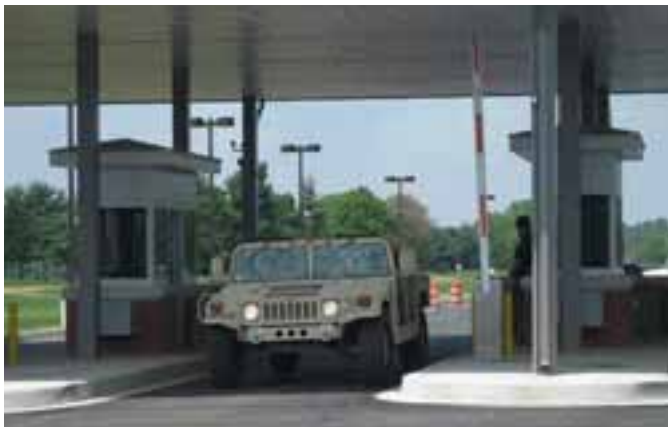
Three priority areas were identified to address BRAC community needs: transportation, land use and infrastructure, and workforce and education. They continue to be the Consortium's primary focus at monthly meetings where a core representation of approximately 35 different government entities convene to discuss topics such as installation construction updates, road and transit improvement updates, logistical personnel data, workforce training/job fair briefings, etc.

In January 2008, the Consortium was selected by the National Association of Counties as a Sustainable Communities Award recipient, one of ten communities nationwide recognized for its collaboration on economic development efforts. In August 2009, the Association of Defense Communities named CSSC "Active Base Community of the Year," praising the partnership between community and installation regarding BRAC implementation.

With a strong partnership established between the APG Garrison and other tenant activities, Harford County's cooperation to serve as lead facilitator of funding on this regional planning approach through interagency agreements with partnering jurisdictions, and total awards of more than $7 million in planning monies executed throughout the region, the Consortium has comprehensively studied a variety of issues in support of BRAC implementation in the APG community. This collaboration has proved particularly beneficial in a down turned economy where resources have become increasingly more limited.

Various studies have been completed or are underway through the Consortium's efforts. Early on, both a demographics study to project growth impacts throughout the region and a capital facilities inventory and gap analysis were conducted to better plan for BRAC-related growth. Building upon these findings, several large initiatives have begun including a multimodal transportation center feasibility study that examines municipal, county, state, and regional capabilities to establish a transportation hub within Aberdeen to alleviate congested roadways and accommodate rail, commuter bus, and shuttle service on and off the installation. Another development is a regional GIS enablement tool, a web-based application that allows for land use planning across county and state boundaries.

A regional workforce analysis is currently underway that looks at the public service sector (healthcare, education, law enforcement, and emergency services) to identify gaps in projected service demands as well as identify recruitment strategies and opportunities for spousal employment. A workforce training curriculum assessment, coordinated through four community colleges, is examining existing curriculum while assessing future training needs associated with mission growth at APG. More than 20 different studies addressing transportation, infrastructure or workforce have been contracted through CSSC efforts.



The MD 715 Gate is the first BRAC project to be completed in Maryland, May 2009.

PRIORITIES & CHALLENGES

Transportation

In general, northeastern Maryland has a less mature road system than other parts of the country. Gaps in connectivity in rail service in this region do not offer access to the installation from the northeast region. In fact, commuter rail service ceases less than six miles east of Aberdeen Proving Ground.

Road improvements, identified in a list of 23 intersections, were reduced to eight, then six, then one when state budget deficits and funding deferrals eclipsed efforts to address commuter congestion. Modeling simulations of the roadways leading to the installation post-BRAC show extensive gridlock.

Commuter bus routes have been reduced and currently no shuttle service on and off the installation exists. Ample parking on the installation provides no disincentive to utilize mass transportation and the earliest efforts to establish service aligned with APG commuter schedules would be 2014, three years after most workers have established commuter patterns.

The challenges are being openly discussed through coordinated efforts among local and state transit-related agencies; innovative approaches like Harford County's "Road Club" to examine funding opportunities for public-private partnerships; exploration of DAR funding in support of roads leading onto the installation, and encouraging joint state efforts through the CSSC Regional Rail Committee to engage federal delegations in addressing corridor issues.

Infrastructure

Water and sewer infrastructure needs were keenly focused upon in the early stages of BRAC to accommodate growth in an expedited time frame. The installation receives its water supply from the city of Aberdeen which is also experiencing tremendous growth outside the gate. Capacity issues morphed into allotment issues as partnerships developed and a regional water service authority is under exploration to examine function and feasibility. Expansion of existing waste to energy facilities, which convert refuse to energy in the form of electricity and steam supplied to APG, was also studied in preparation for BRAC implementation.

These challenges have been addressed proactively with the MD Lt. Governor's BRAC Water Summit, a water agreement established between Harford County and the city of Aberdeen, and expansion of a key water treatment facility.

Workforce/Education

Extensive outreach (relocation fairs, motorcoach tours, town hall meetings, etc.) to the incoming BRAC workforce and their families has had a positive impact on the percentage intending to relocate. In 2006, only 20 percent expressed intent to move with their jobs; today that number approaches 60 percent. The state of the economy has offered bittersweet support regarding those willing to relocate as opportunities for alternative employment have diminished greatly. Unfortunately, the housing market has left many unable to take advantage of incentive programs with upside down mortgages in closing base communities.

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Science and engineering represent nearly 40 percent of the jobs transitioning to the region, a sector already competitive on the national level and compounded by retiring baby boomers. Coupled with experienced acquisition and government contracting personnel, competition among government DoD and defense contractors creates a shell game of employment moves as 69 other tenant organizations become vulnerable to the impacts of resulting vacancies within their organizations.

Fundamental process differences between government hiring and the private sector leave many qualified candidates out of the hiring circle in compliance with federal guidelines. Interns--newly-hired recent college graduates-- have been a progressive solution by the government to grow its own while acclimating to organizational culture. It offers rapid advancement and a training ground to replenish a seasoned and retiring workforce.

Spousal employment for the civilian workforce continues to be a focus as dual-income households make decisions about relocation. Sectors such as teaching and healthcare that looked to the incoming population as a boon to the workforce demand when BRAC 2005 was announced have experienced layoffs and staff reductions under current economic conditions.

Regional communty colleges throughout the corridor are engaged in assessing workforce training needs and aligning curriculum in support of APG's growing workforce. The two closest community colleges have entered into partnerships with higher education institutions to bring four-year programs to their campuses.

A regional higher education center has been identified as a need in the APG region. Recent studies indicate degree requirements between 2010 and 2019 show demand averages at 205 bachelors degrees, 163 masters degrees, and 21 doctoral degrees annually in support of the APG defense mission.

Extensive higher education institutions are available in the Baltimore-Washington region, but outside a 35-mile radius of Aberdeen. The closest university to the installation is out of state at 25 miles from the installation. The Higher Education Advanced Technology (HEAT) Center in Aberdeen brings satellite programs to the APG community, but is currently at capacity. Disparity in perceived interest among higher education institutions within the region in responding to program needs at APG is an area the CSSC continues to address.

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These challenges have been addressed through regional job fairs in coordination with incoming mission activities; a series of community tours that showcase quality of life; and development of the *APG Maryland Welcome & Relocation Guide* to offer a comprehensive, regional tool to explore living within the Chesapeake Science & Security Corridor. The Consortium has also engaged BRAC early movers as well as undecided DoD personnel who are eligible to relocate through demographic and workforce surveys to continue to target community messages and address concerns in a timely manner.

The state of Maryland established a BRAC Transition Center on the Ft. Monmouth, NJ, installation. Designed to provide personalized assistance on relocation, the center has exceeded 5,600 visits.

The issues involving higher education have been addressed through early dialogue that brought mission leadership and higher ed representatives together in discussing future needs at APG. As a result, a University Day followed where Ft. Monmouth hosted higher ed officials in its laboratories and demonstrated technologies that will require the greatest demands for modified or customized curriculum needs. A feasibility study is underway to look at expansion of the Higher Education Applied Technology (HEAT) Center, and the state has identified the need for a regional higher education center in the APG community within its state BRAC action plan. The senior mission command at APG has targeted outreach efforts in engaging both flagship universities in Maryland and Delaware.

A Community & Installation Partnership

The installation has maintained a strong partnership with the community during BRAC implementation. Briefings to incoming missions and directorates, congressional delegations, and state and federal officials are co-presented by garrison and community BRAC representatives; tours are organized jointly, transportation committees have dual representation, and concerted efforts are made to provide consistent information in terms of data, timelines, and updates both on- and off-post. The Enhanced Use Lease (EUL) negotiations brought together county officials and installation leadership for frank discussion on priorities and fostered a co-dependence of service provisions serving as a win-win for all stakeholders.

PROJECT NEEDS ASSESSMENT

Transportation

Six intersection improvements identified within a five-mile radius of APG have gained regional consensus; however, one top priority intersection has been identified in light of state transportation revenue shortfalls. Currently, the intersection identified, which leads directly onto the base, is only at 65 percent design. Collectively, the improvements are estimated to cost $90.84 million with $30 million allocated, resulting in a funding gap of $60.84 million. The one intersection deemed essential is slated to exceed $31.75 million; however, even given a green light to proceed today, it could not be completed prior to September 15, 2011.

A Multi-modal Transportation Center (MTC) was deemed feasible and the existing Aberdeen Train Station was identified as the optimal site after screening approximately 19 different criteria. Currently, no shuttle service is available on or off the installation and train schedules to and from the station afford an APG employee as a commute rider the opportunity to work only a 5.5 hour work day at best. Commuter bus service can not operate out of the over-capacity parking facility as it currently exists.

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Platform expansion and Americans with Disabilities Act (ADA) compliance issues would be priority improvements; the station itself would need to be relocated westerly. Again, even with funding for engineering and design in hand, and $60 million in construction dollars identified, the MTC would not be complete before 2014. This would be three years after nearly 20,000 direct and indirect jobs have established themselves in the APG community and ingrained travel behavioral patterns as single-rider roadway commuters.

Infrastructure

The primary funding source for water & sewer projects is through local bonding. Local bond measures in most of the CSSC jurisdictions (i.e., Maryland counties) do not need to be approved through referendum. However, bond measures must be approved by county commissioners. County utility systems (i.e., those not managed by private operators) also have the ability to set utility rates. However, rate increases require the support of a large number of elected officials. A sum of identified project costs associated with water and wastewater expansion facilities is estimated at $53 million with a $49.9 million funding gap.

A key challenge here is the inability to determine the extent to which federal funding is required to carry out these projects in the CSSC area for one primary reason: the extent and distribution of the projected growth in the CSSC region is not yet understood to a point where it is possible to make accurate projections about what specific projects will be required to mitigate growth at a local level. With an anticipated 95 percent-civilian growth population which has the choice to live among four states and 11 counties and still reside within a 50-minute commute to Aberdeen Proving Ground, identifying key growth areas continues to be a challenge.

Our collaboration with incoming mission leadership as well as the defense contractor community has provided survey data on early movers' zip codes and intent of workforce to relocate by jurisdiction. Transfer of Function (TOF) letters are currently under issue among incoming missions, which will assist in identifying workers who are not coming (and in turn are offered assistance through priority placement programs). However, this still does not provide accurate data for numbers who are relocating, as TOF is not binding for those who indicate they intend to relocate.

Education

School construction priority needs identified in Harford and Cecil Counties are estimated at $152.9 million with a funding gap of $139.8 million. In Harford County, forward funding of school construction has been used to accommodate growth in recent capital facility projects for education. In Cecil County, because Maryland enrollment projections are driven by historical data (such as enrollment trends and birth rate), and the wave of BRAC-related students has not yet been part of any head count, state-rated enrollment only supports a 700-student capacity for the newly designed 840-capacity Comprehensive Technical High School. This puts the onus of the additional seat funding on the local level. As a result, the school board has lowered the priority to address other systemic school improvement projects throughout the county.

Survey data indicates that Harford and Cecil Counties will receive approximately 70 percent of the anticipated BRAC residential growth and, according to a 2007 demographics study, a public school population of nearly 6,000 students.

SUCCESSES

With roughly 450 working days remaining until the BRAC implementation deadline, there is little time to pause for reflection. That said, the following key points come to mind as potential best practices during planning and implementation efforts:

- Establish a regional approach early on in the planning process. This was critical to building relationships, achieving consensus and developing priorities for the APG community that are supported by multiple entities at municipal, county, and state levels.

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- Enhance a working partnership between the community and the post that is focused on support for the warfighter and installation transformation. The impact of delivering a unified message with consistent information both inside and outside the gate has nurtured credibility, streamlined communications, and focused resources to priority areas.
- Create a Regional BRAC Office to serve as a communications clearinghouse; maintain a comprehensive BRAC website; disseminate a daily e-news distribution on BRAC-related activity; distribute regional print materials; and coordinate outreach efforts for community tours, presentations, etc. Over-communicating has been an effective tool to increase awareness and understanding among constituent groups in the growth-impacted communities as well as the incoming population affected by the BRAC decision. More than 150 presentations are provided annually by the Regional BRAC Office – from congressional briefings, to Chamber of Commerce luncheons, to civic organizations and on-site quality of life presentations for incoming mission activities.

LESSONS LEARNED

- Be flexible! The numbers are ever-changing and external forces (i.e., economic conditions) can play havoc on rigid plans. Look for opportunity in every challenge. Engage your stakeholders, develop messages for multiple audiences, and stick to key messages and talking points when briefing elected officials.
- The Office of Economic Adjustment (OEA) is an excellent resource not just as a funding source, but for the technical assistance it provides through experienced staff.
- To growth communities with a large civilian influx: quit looking for best practices and recognize you're a pioneer! Network "outside your box" and look for creative approaches to addressing critical issues.

EXPERIENCE WORTH SHARING

Empathy is an important tool in successful BRAC implementation. Despite the technical aspects of sewer capacities, roadway easements, and anticipating projected needs of high bay or sensitive compartmentalized information facility (SCIF) space versus Class A office space, BRAC implementation has a face – be it military, DoD or defense contractor personnel. They're a co-worker, parent, coach, or congregation member, maybe a caregiver for aging parents. BRAC is a monumental, logistical process, but first and foremost it's about relationships. Take the time to invest in understanding the issues. By building relationships, you will build an investment in ambassadorship for your community and develop peer endorsements that reach farther than you imagined!

For more information about the Chesapeake Science & Security Corridor's BRAC implementation efforts in the APG community, visit www.apg-cssc.com.