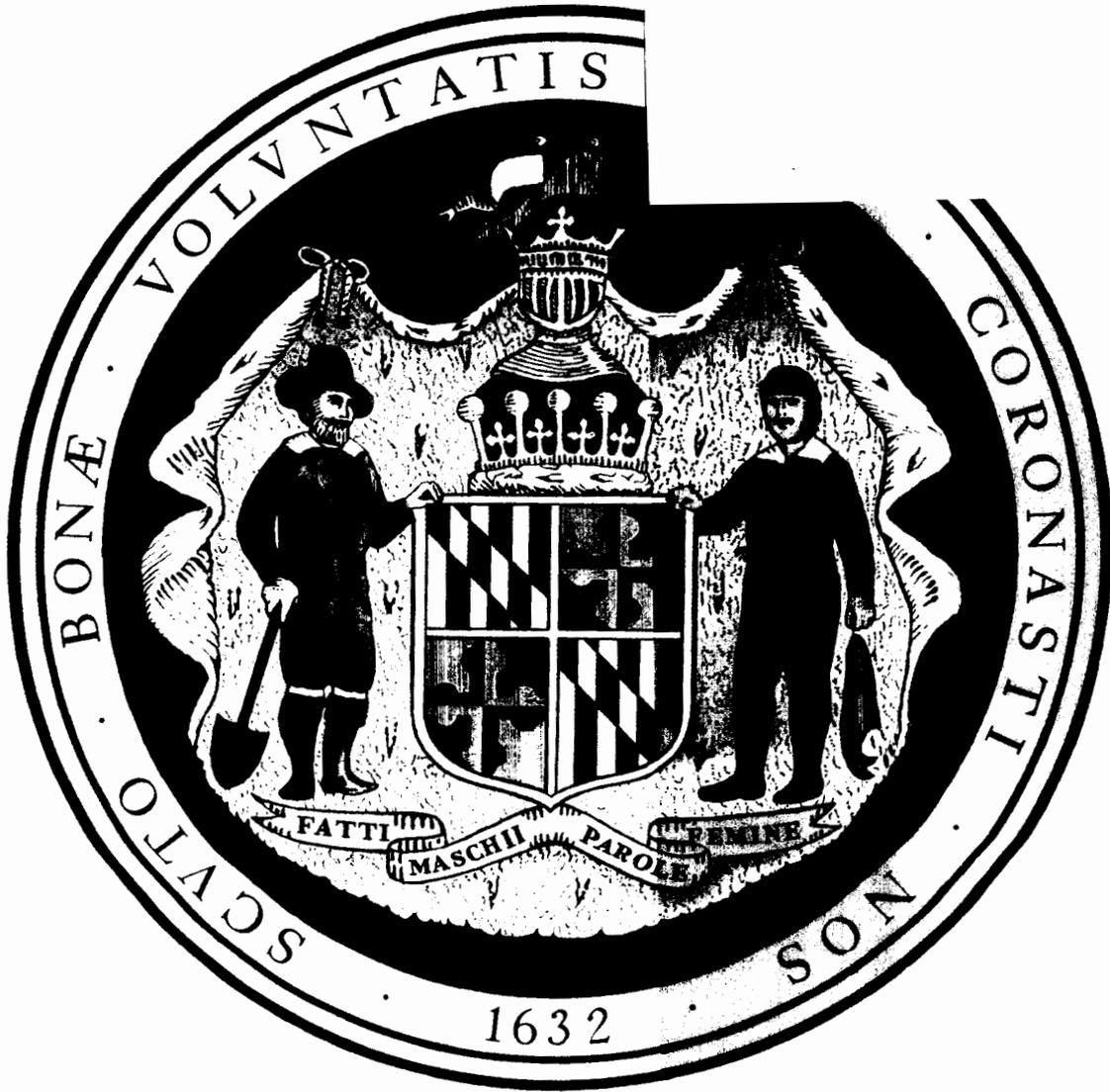


*MD Code 2*

*7/29/05*



**Maryland Stands Ready**

19 July 2005

Chairman Anthony J. Principi  
Base Realignment and Closure Commission  
2521 South Clark Street  
Arlington, Virginia 22202

Dear Chairman Principi and Members of the Commission:

This letter contains comments about the recent New Jersey presentation at Goucher College regarding Ft. Monmouth and Aberdeen Proving Ground.

I listened with great interest to the testimony given to you by the delegation from New Jersey on Friday, July 8, 2005, at Goucher College. I wish especially to correct the sworn testimony that you heard concerning Ft. Monmouth and the countermeasure systems that are being fielded in Iraq and Afghanistan to neutralize the insurgent's Improvised Explosive Devices. You were told, quite pointedly, that this program would be harmed at the wrong time if the mission and functions and staffing of Ft. Monmouth were to be transferred to the Aberdeen Proving Ground. Not true.

During 1956 – 1996, most of my service as a soldier and as a civilian employee of the Army was at Aberdeen Proving Ground, in positions that required intimate knowledge of how the various electronics systems, fielded and in development, were designed, how well they performed or were intended to perform, and their technical specifications, durability on the battlefield, acceptability by soldiers, and overall operation in combat. I studied and worked with radios, sensors, command and control systems, air and ground reconnaissance platforms, and signal warfare equipment. On numerous occasions I was asked to lead investigations for the Department of Army and for HQ U.S. Army Materiel Command. For more than 20 years I had desk space in a secure facility where I was given access to many C4ISR programs. I visited the various parts of Ft. Monmouth on many occasions, and took part in the highest level program reviews both at Ft. Monmouth and in the Pentagon. I chaired reviews of Ft. Monmouth's compliance with recommendations of the Army Science Board, I participated as a member of source selection advisory boards, at Ft. Monmouth and elsewhere, and I served as technical evaluator of many electronics development programs over the years. In addition I worked closely with the Army's electronics test facilities in the U.S., at and around Forts Huachuca and Hood, and with the operational test evaluation groups in the Training and Doctrine Command. For several months, I served as Acting Technical Director of the Operational Test and Evaluation Agency. I participated, along with the British Army, in the evaluation of electronic warfare systems that prepared the U.S. Army for its 1986 reorganization. I headed and participated on teams that evaluated combat system performance in the Middle East in 1973 and again in more recent years. I am familiar with the Ft. Monmouth programs and the command's approach to new system development. I've had occasion to meet with many of Ft. Monmouth's contractors across the U.S. I was a member of the Senior Executive Service for 14 years. I am retired, and I am an unpaid volunteer member of the Aberdeen Army Alliance. I have no expectation of financial reward as a result of any actions that I might influence regarding the DoD. I have no relative employed by the federal government, in Harford County or in

any other place, in any role other than as a soldier currently deploying to Iraq. I am interested only in improving the U.S. Army by supporting the DoD position concerning Ft. Monmouth and Aberdeen Proving Ground.

Three main points:

- The Army Research Laboratory's Survivability/Lethality Analysis Directorate (SLAD) at Aberdeen took the initiative to endorse and fund project suggestions by their field test and design group at the White Sands Missile Range. SLAD designed and developed, in collaboration with New Mexico State University, the countermeasure system that is being fielded, and this design will continue to be fielded. It is one of four concepts that are now managed by the Program Executive Office IEW&S at Ft. Monmouth in a program called Warlock. The alternative designs appear to have been created by contractors, not by the Ft. Monmouth staff. Contractors provide the SLAD field support, not the Ft. Monmouth staff. Every part of the logistics support and program management is, by nature, highly portable. I have been unable to discern a single aspect of this program that would be harmed if the functions and staffing were transferred elsewhere, at any time. The SLAD team was one of ten Army groups honored for their inventions for the year 2004, because their creation works. The Army's active-duty divisions and the Training and Doctrine Command chose the ten winning programs for their impact on Army capabilities. Nominations for the program were submitted from across the Army laboratory community. None of the New Jersey testimony to you regarding this very important program was factual. It was irresponsible, in this and in other instances. I know that you understand the truth in this matter.
- The institutional culture at Ft. Monmouth is not conducive to creative technical thought. There are some wonderful exceptions, most notably at the Night Vision Laboratory and in a few small pockets of Ft. Monmouth. Using whatever wisdom, the Department of Defense recommendation to create a new center of excellence at Aberdeen Proving Ground is right on the mark, because the Aberdeen culture promotes independent technical thought and the pursuit of battlefield know-how among its military and civilian workforce. As a result, electronic system test design, testing, and development test evaluation *has* been conducted at both Aberdeen and at the Army Test Center's electronic proving ground, Ft. Huachuca. Most of the test work is carried out at Ft. Huachuca and White Sands, because the east coast electronic environment, including commercial radio traffic, air traffic and associated radar create barriers, as you know. The same applies to Ft. Monmouth. For whatever reason, the Ft. Monmouth approach to developing new military capabilities has failed, singularly, to produce a tactical command and control system that soldiers use for much more than e-mail. It has failed to produce a useful system to facilitate the processing of tactical intelligence information (today, the All Source Analysis System is, essentially, tent furniture). Many of the tactical sensors that have been produced under the oversight of the Ft. Monmouth staff are huge, barely mobile "targets." Useful electrical engineering and applied physics know-how is very hard to find at Ft. Monmouth. The real accomplishments of the Ft. Monmouth staff toward fielding useful systems are very few, and that is a main reason that staff spends so much money—the pursuit of failure after failure! In particular, software development (including software performance evaluation) is very weak, and the software must always be repaired and reprogrammed *during combat*, because the Ft. Monmouth

software is not subjected to sufficiently rigorous laboratory tests. Field cellular phones (Mobile Subscriber Equipment) cannot keep up with mobile combat operations. The list is endless. The Ft. Monmouth staff and leaders are not well prepared to supervise their research and development and production contracts. A change in environment cannot harm the missions of the Army's C4ISR developer. It will provide a start on the road to recovery.

- The whole series of presentations by the New Jersey group was replete with misrepresentations concerning Ft. Monmouth and Aberdeen. As one example, one of the New Jersey briefers gave an especially artful set of comments about contamination at Aberdeen Proving Ground. As you are aware, our predecessors did not know enough about chemistry or geology, and they did leave some problems for our generation. We are dealing with them. We have solutions. We are very concerned about the environment in which we and our families live and work. I am reminded of this constantly, in another volunteer role as a Director of the Friends of Harford (County). APG is our welcome neighbor. We actively seek to improve our environment. Apparently that brifer has not taken the opportunity to perform a Google search on <"Monmouth County" toxic>. Monmouth County has problems that appear to surpass those in most of our country. In 1994 there were 390 toxic sites in Monmouth County! Long Branch is a source of unusually high cancer rates due to the long-ago use of coal plus chemicals for gas lamps. If I happen to visit that area again, I shall drink bottled water, and hope that it is okay. Like Aberdeen's neighbor, Harford County, Monmouth is working their way through the problem. That brifer tried very hard to make Aberdeen sound like a bad place in which to live, and suggested that the Ft. Monmouth staff would not wish to move to our area. Those who do move will upgrade their living environment.

Very respectfully,

Arend H. Reid  
Director  
Aberdeen Army Alliance

Oak Ridge National Laboratory  
One Bethel Valley Road  
P.O. Box 2008, MS-6252  
Oak Ridge, TN 37831-6252

July 27, 2005

The Honorable Anthony J. Principi, Chairman  
Base Realignment and Closure Commission  
2521 South Clark Street, Suite 600  
Arlington, Virginia 22202

Dear Chairman Principi and Members of the Commission:

I am Major General (Retired) John C. Doesburg. I retired effective 1 January 2005. My last assignment was as the Commanding General, U.S. Army Research, Development and Engineering Command (RDECOM) and for five years I also served as the Installation Commander, Aberdeen Proving Ground. I understand there has been extensive discussion about the closure of Ft. Monmouth, New Jersey, and the movement of most of the organizations there to Aberdeen Proving Ground. I would like to take this opportunity to outline the inception of RDECOM, underscore why the move of the Communications and Electronic Command (CECOM), the Communications and Electronics Research, Development, and Engineering Center (CERDEC), Night Vision Laboratory, and the associated Program Executive Officers (PEOs) and Acquisition Center make sense.

The original concept of RDECOM was to break down the "stovepipes" (technology/functionally restricted or unilateral organizations) that existed among the Army Research, Development, and Engineering Centers (RDECs), develop a system-of-systems approach to research and development, fuel collaboration among the best scientists and engineers regardless of where they were assigned, and to provide technology to warfighters as quickly as possible by leveraging the other concepts listed. Unfortunately, under that original concept I was directed to not move organizations or people regardless of potential synergies or savings. This was primarily driven by the contentious nature of changing the command and control of the RDECs.

Even in the early stages it was apparent that some level of consolidation was needed to meet the original concept of breaking stovepipes and improving collaboration within the entire RDT&E community. As time went on, I developed several options on how consolidation could be accomplished, focusing on technology synergies and savings in infrastructure and personnel costs.

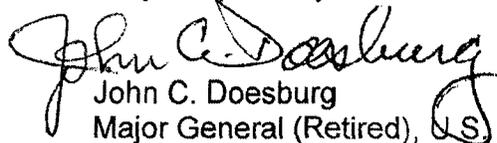
One of my major options called for the CERDEC to move from Ft. Monmouth to Aberdeen Proving Ground (APG) because of the strong relationship of CERDEC to the Army Research Laboratory (ARL), located at both APG and Adelphi, MD. Specifically, ARL is a national and world leader in sensor, electronics and computational science. These technologies by and large transition directly to CERDEC. I also felt there was a strong relationship between CERDEC and several other organizations located at APG – the Edgewood Chemical and Biological Center (ECBC), the Developmental Test Command (DTC) and the Aberdeen Test Center (ATC). Key parameters for me – many of ECBC's chemical and biological sensors require CERDEC developmental skills to translate data into actionable information; plus APG (DTC and ATC) had a large testing and range complex, extensive security for CERDEC's classified programs and was a major location for evaluating the Future Combat System, in which CERDEC has a critical support role.

After the BRAC announcement it was clear someone had a bigger vision than I did. By moving the other components of the Life Cycle Management Command (formerly CECOM, the PEOs and Acquisition Center) to APG they had really thought through the complexities of transitioning technology, gaining intellectual power through co-location, and the need for a single integrated center for research and development across multiple domains. By moving most of the assets of Ft. Monmouth to APG they have created an intellectual nexus that can solve today's and tomorrow's challenges across a wide spectrum.

As the former Installation Commander I can state that Aberdeen Proving Ground has sufficient land space for this move. The surrounding communities have sufficient land for housing and commercial development to support the influx. The universities within the region have undergraduate and graduate programs in disciplines that support the skills needed (more importantly several are world class).

Bottom Line – this is the right move. If it was within my power, I would have made this move two years ago. Our Army, the other Services and our young warfighters are better served by this move.

Very Respectfully,

  
John C. Doesburg  
Major General (Retired), U.S. Army

DAVID R. CRAIG  
HARFORD COUNTY EXECUTIVE

JOHN J. O'NEILL, JR.  
DIRECTOR OF ADMINISTRATION



J. THOMAS SADOWSKI  
DIRECTOR  
OFFICE OF ECONOMIC DEVELOPMENT

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**HARFORD COUNTY GOVERNMENT**

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July 27, 2005

The Honorable Anthony J. Principi  
Chairman  
Base Realignment and Closure Commission  
2521 South Clark Street  
Suite 600  
Arlington, Virginia 22202

Dear Chairman Principi:

The citizens of Harford County and the great State of Maryland appreciated the opportunity to present our testimony to you on July 8, 2005 at the Regional Hearing held in Baltimore at Goucher College. I believe Team Maryland successfully articulated our collective readiness and ability to accept the operations recommended for relocation to Aberdeen Proving Ground (APG).

The concern that "brain drain" will result from the move of the C4ISR mission to APG is one matter we feel particularly confident in addressing. The data we presented reflected the quality of Maryland's workforce. It documented the vast market from which APG draws its skilled labor and the opportunity for employees throughout the Baltimore Region, as well as from outside the State of Maryland, to commute to Aberdeen. We presented information attesting to the deep pool of talent nurtured and supplied by our Maryland and Delaware-based universities. Our testimony highlighted our regional transportation infrastructure and how it is being enhanced. We cited Department of Defense accepted reports ranking our quality of life the best among major military communities. And finally, we listed numerous companies that comprise a well established, regional contractor community that supports both current C4ISR activities and APG-based operations.

Perhaps the one area requiring further discussion is our utilization of "the Pax River" or "NAVAIR" model. This refers to the manner in which our neighbors in Southern Maryland responded when tasked with aiding in the consolidation of sixteen separate geographic locations into a single, integrated air warfare research and development, test, evaluation and acquisition center at the Patuxent River Naval Base during the 1995 BRAC. Overall, relocation rates of 80% from Crystal City, Virginia; 41% from Trenton, New Jersey; and 46% from Warminster, Pennsylvania were achieved. This was due to Southern Maryland's proactive planning efforts and responsiveness to the impacted employees. The State of Maryland, Harford and Cecil Counties began replication of the Pax/NAVAIR model seven years ago with the creation of the Army Alliance, and since, have taken the following strategic steps in preparation for the current BRAC round:

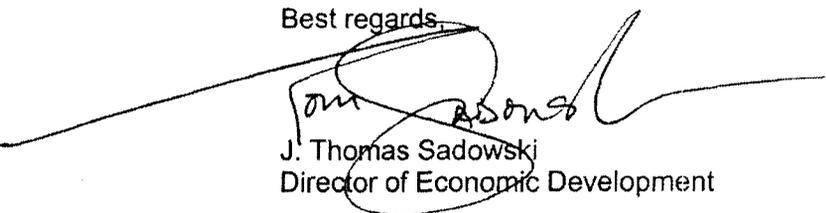
- Launched Marylandready.com providing community information and various relocation related services (over 150,000 hits thus far – vast majority from Ft. Monmouth).
- Briefed more than 70 incoming commanders and operation leaders.
- Volunteered and in process of scheduling on-site community orientations at bases and locations impacted in Virginia, Texas and New Jersey.
- Responding to spousal re-employment inquiries and planning regional job fair events.
- Established local real estate community contacts to provide professional relocation assistance.
- Coordinated immediate Federal, State and local cooperation required to service growth at APG and facilitate employee retention, from the commitment of more than \$170 million in State and County infrastructure funding to the \$1.2 million in U.S. Department of Labor funds for employee recruitment and training assistance.
- Initiated development of a 2005 to 2025 Community/APG Transportation Master Plan to determine and pursue Federal, State and County capital funding requests.
- Arranged for the establishment of a “war room” at the Higher Education and Applied Technology (HEAT) Center in Aberdeen to facilitate coordination, planning and implementation of final BRAC recommendations.

A summary of the Pax/NAVAIR experience is attached for your consideration. Upon review, you will find the steps we have taken are consistent with those taken in Southern Maryland. We are therefore confident in our readiness to support the Department of Defense (DoD) recommendations and help retain the highest percentage of employees possible.

So, as the data and demographics we have presented show, as the evidence of our past experience in Maryland reflects, and as our collective efforts to date demonstrate, we are ready. We are committed to this effort and anticipate similar, if not better, results this BRAC round. Simply put, Team Maryland has done this before and there will be no “brain drain” experienced with the implementation of the current DoD recommendations. Instead, the necessary steps are being taken to facilitate the desired result - greater military productivity, efficiency and “brain enhancement.”

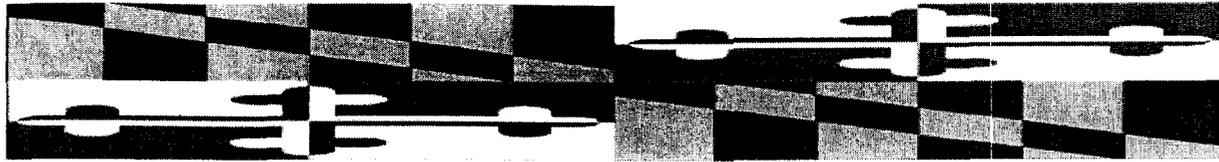
Thank you once again for your consideration.

Best regards,



J. Thomas Sadowski  
Director of Economic Development

*Attachment*



## Maryland Stands Ready - APG The NAVAIR Model

NAVAIR's Model is a full spectrum acquisition model for the 21<sup>st</sup> century. The result is a **Center of Excellence** which brings synergy among Science and Technology, Research and Development, Test and Evaluation, procurement and acquisition, logistics and maintenance.

The NAVAIR Model consolidated and streamlined functions from 16 separate geographic locations to a single, integrated air warfare research, development, test, evaluation and acquisition center

NAVAIR Model leads the nation in streamlining, consolidating and downsizing:

- 47% reduction in personnel (FY89 – FY 99)
- Downsized nearly 27,000 people
- Closed 3 of 6 Naval Aviation Depots
- Closed 4 Of 9 Naval Air Warfare Product Development Center

Today the Patuxent River Complex is a National Asset and is recognized as national model for streamlining in the U. S. Government

- Integrates best business practices of our nation's private sector corporations
- Creates a national asset with a workforce of nearly 18,000 personnel; approximately 14,000 acres of land
- 1 million cubic miles of airspace, and over \$2.6 billion infrastructure in place

### Result:

#### Military Value: Impacts current and future mission capabilities:

- Synergy from cradle to grave
- Consolidates organizations – ready access, networking among collocated professionals and stream-lined organizational structure.
- Technology Gains – spiral development, latest technology standards
- Provided test range/air space integration with other acquisition activities
- NAS recognized as a Center of Excellence

### Workforce

Personnel moved from various locations. The % of personnel who transitioned is listed below. Note: Numbers are greater than polls showed.

- 80% from Crystal City – Naval Air Systems Command
- 41% from Trenton, NJ – Naval Air Propulsion Center (NAPC)
- 46% from Warminster, Pennsylvania – Naval Air Development Center (NADC)

### Outreach: Partnership Between Installation and Community (The "Team")

The Team visited installations on numerous occasions to educate and promote the new location to ease worker family and transition stress. The HRO of the installation, local and state agencies hosted events to provide spouse employment resources and opportunities.

The Community collectively prepared (local and state economic development, Tri County Council, Realtors, School Board, federal resources) to address quality of life, including:

- Housing affordability
- Schools and needed expansion
- Grants

### And it didn't stop there! Partnerships...

After consolidation at Patuxent River was announced, the Southern Maryland Navy Alliance's (SMNA) focus was to secure support for the funding and constructions, through state and local resources, of schools, roads, higher education and other infrastructure necessary to support a complex high technology organization and its workforce.

Eventually an infrastructure committee was developed and recommendations were made to the Governor, which resulted in a \$250 million infrastructure improvement program. Overall, \$350 million from state and county resources were invested in support of the Navy mission. The state government team at the Maryland Department of Business and Economic Development provided strong support through out the consolidation and the years following.





**ARMY ALLIANCE, INC.**

HIGHER EDUCATION AND APPLIED TECHNOLOGY (HEAT) CENTER ★ 1201 TECHNOLOGY DRIVE ★ ABERDEEN, MD 21001

410.638.2511 ★ FAX 410.638.2514

July 21, 2005

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- APG Federal Credit Union
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- ATK Tactical Systems Company, LLC
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- Boyle Buick
- Decision Systems Technologies, Inc.
- Four Points Sheraton
- Geo-Centers, Inc.
- Hartford Bank
- Hartford County Association of Realtors
- Hess Hotel Group
- OptiMetrics, Inc.
- ORSA Corporation
- SciTech Services
- Smiths Detection - Edgewood
- SURVICE Engineering
- University of Maryland

The Honorable Anthony J. Principi, Chairman  
 Base Realignment and Closure Commission  
 2521 South Clark Street, Suite 600  
 Arlington, Virginia 22202

Dear Chairman Principi:

As we continue to analyze the New Jersey portion of the testimony at the July 8 BRAC hearing in Baltimore, MD, there are more and more questions without answers. In particular, the "megabase" proposal raised at the hearing is not well defined, it is incomplete, and the whole argument was conclusionary without facts and logic to support it.

The New Jersey proposal would create, by decree, a so-called megabase. Neither operations, real estate, nor facilities on Fort Dix, Lakehurst Naval Air Engineering Station, or McGuire Air Force Base would change except for a sign. This was presented as increasing jointness, but there was not even a suggestion that there would be any change in operations at any of the separate locations. At Fort Dix, for example, the mission is to prepare soldiers for deployment, primarily to combat areas. And it is receiving greater mobilization responsibility under the DoD's realignment recommendation. It is hard to imagine Fort Dix taking on a test role that would permit outside organizations from Ft Monmouth to tap people and interrupt that crucial training. One can imagine that an administrative consolidation of headquarters functions might save a few overhead spaces but the proposal should be given at least the same level of analysis as was given to the basic DoD recommendations. The proposal offered no improved facilities, no common operating philosophy, and the individual bases are just as distinct.

It was recommended that the Air Force have command of the megabase, but that alone does not create jointness. Jointness is enhanced when similar requirements and functions make use of the same procedures and facilities. For example, Aberdeen Proving Ground tests both Navy and USMC waterborne equipment, and both Army and Air Force airdrop equipment, using the same facilities and test support personnel. The Dix-Lakehurst-McGuire (DLM) Megabase would still have different people doing

different things. And, despite the claim that DLM would create >60,000 acres in close proximity, close is not always useful. When you have to stop a vehicle, or shut off a radio signal, and repackage a system to cross a civilian street or move from one property to another, "close" is still very far apart. Put simply, the DLM Megabase proposal is a smoke screen, with no increase in military value.

The New Jersey testimony spoke at length about errors in the DoD calculations of costs to move and the costs to replace personnel. The basis for much of that discussion was work done by Bliss & Associates, a firm of 4 people (as listed on their web site) local to Fort Monmouth in nearby Wayne, NJ. The relevant question is not whether another model can produce different numbers, but whether the output can be correlated with data developed in great detail over a two year period by DoD. As required by law, the Government Accountability Office has published its analysis of the DoD selection process and recommendations.<sup>1</sup> It had criticism, but also confirmation. These GAO statements are relevant:

- "DOD's process relied on certified data."<sup>2</sup> During the BRAC process, data were certified by senior officials at DOD installations. Each official certified that the information was accurate and complete to the best of his or her knowledge and belief.
- "...the DOD Inspector General and the military service audit agencies...generally found the data sufficiently reliable to support BRAC decision making."<sup>3</sup>
- "...the COBRA model was designed to provide consistency across the military services...[and DOD]...has improved upon its design to provide better estimating capability. In our past and current reviews of the COBRA model, we found it to be a generally reasonable estimator for comparing potential costs and savings among various BRAC options."<sup>4</sup>

The emphasis of the New Jersey testimony on a single point estimate, generated by a proprietary process which cannot be reliably compared to other figures, does not offer a sound basis for decision making.

One of DoD's goals is to concentrate life cycle program management into four centers. The New Jersey proposal nullifies that approach and creates a single

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<sup>1</sup> Analysis of DOD's 2005 Selection Process and Recommendations for Base Closures and Realignment, Government Accountability Office, GAO-05-785. July 2005.

<sup>2</sup> Page 5.

<sup>3</sup> Page 6.

<sup>4</sup> Page 32.

outlier organization. There is no substantive logic offered for doing so, other than a new set of independent and unverified numbers.

Finally, the New Jersey testimony alluding to construction costs for new facilities at Aberdeen Proving Ground gave no consideration to the use of space which will be made available by the departure of the Ordnance Center and Schools – 2,171,031 square feet of facilities – and failed to acknowledge that DoD has already considered and factored in essential construction of new facilities.

We respectfully ask that you take these facts into consideration during your deliberations.

Sincerely,

  
Wyatt H. Colclasure II  
President

# United States Senate

WASHINGTON, DC 20510-2002

July 25, 2005

The Honorable Anthony Principi  
Chairman  
Base Realignment and Closure Commission  
2521 S. Clark St.  
Suite 600  
Arlington, VA 22202

Dear Chairman Principi:

We are writing to thank you for the opportunity to testify before the BRAC Commission at the July 9<sup>th</sup> regional hearing at Goucher College. We appreciate the opportunity to support our communities in their response to the Department of Defense (DOD) recommendations. In following up on the issues discussed during the hearing, we would also like to correct certain assertions that were made pertaining to the DOD recommendation to consolidate C4ISR functions to Aberdeen Proving Ground (APG).

- **Moving C4ISR functions during wartime will not hinder our ability to provide these capabilities to the war fighter.**

The assertion that closing Fort Monmouth will have a negative impact on military personnel in combat today is without merit. Opponents of this recommendation suggest that it will hinder the fielding of the Warlock Improvised Explosive Device (IED) jamming systems. In fact, these systems were developed by the Army Research Laboratory (ARL) Survivability and Lethality Analysis Directorate (SLAD), which is headquartered at APG, with components at White Sands, NM and Fort Monmouth, NJ. Fort Monmouth's role in this process is largely acquisition management, not engineering. The Warlock systems were developed by a team of ARL SLAD soldiers and Physical Science Lab engineers from New Mexico State University. The Army has also contracted with several private sector firms for further research and development, and the production of the Warlock systems and their replacements. Air Force and Navy researchers play a large role in research and acquisition of IED jamming technologies and systems as well. In other words, work on the IED jammers will continue as usual regardless of BRAC.

More importantly, as has been pointed out in the DOD recommendations, consolidating C4ISR RDA and T&E functions at APG would provide a beginning to end capability in developing and fielding C4ISR equipment – allowing 21<sup>st</sup> Century technologies to reach our servicemen and women in the most efficient and effective

manner and saving lives on the battlefield. As was explained in detail during the July 8<sup>th</sup> hearing, this capability cannot be achieved at Fort Monmouth.

DOD began deliberations and formulated all of its BRAC recommendations during a time of war. Therefore, DOD was able to fully assess any impact its recommendations might have on current operations. Given the nature of today's open-ended conflicts around the world, the DOD determined that the primary goal of this BRAC round would be to transform our military infrastructure to effectively confront 21<sup>st</sup> Century threats. The DOD recommendations would be implemented over a six year period in order to maintain continuity of operations while achieving this critical transformation.

- **Moving C4ISR functions from Fort Monmouth to Aberdeen Proving Ground will not create a "brain drain."**

Surveys measuring the number of workers who plan to move as a result of BRAC-related relocations are rarely accurate. In fact, concerns about the willingness of workers to move with their jobs were raised when the Naval Air Systems Command was relocated from Crystal City to Patuxent River Naval Air Station as a part of the 1993 BRAC. At the time, surveys sponsored by opponents of the DOD recommendation indicated that only 20 percent of the workers would move. However, in practice, 80 percent followed their jobs to Patuxent River. Cooperation among stakeholders at the federal, state, and local level made this relocation a success and we intend to replicate this effort at APG.

It was also asserted that the relocation of the Electronic Technology Device Laboratory (now the Sensors and Electronic Devices Directorate) from Fort Monmouth to ARL Adelphi during the 1991 BRAC is an example of what can be expected in the Fort Monmouth closure and relocation to APG. This is not accurate. Because only a small portion of Fort Monmouth was realigned during the 1991 BRAC, many of the workers who might have otherwise relocated to Adelphi simply went to work for CECOM, driving the relocation numbers down. By closing Fort Monmouth entirely, many more workers are likely to follow their jobs to Aberdeen, which is also 60 miles closer to Fort Monmouth than Adelphi.

Although we believe a large portion of the Fort Monmouth workforce will ultimately move to APG should the BRAC Commission approve the DOD recommendation, it is important to note that nearly 35 percent of the Fort Monmouth workforce is over 50 years old. These individuals are likely to retire in the near future regardless of the outcome of the recommendation to close Fort Monmouth. As was thoroughly supported by independent data in testimony at the regional hearing, Maryland has a highly proficient workforce and an educational framework that will more than adequately fill any need for new and highly qualified workers. In addition, many of the private sector contractors that provide C4ISR research and development services for the Army, including Battelle, Booz Allen, Bechtel, Northrup Grumman, Lockheed

Martin, SAIC, TRW, and Smiths Detection, all have a significant presence in Maryland and a large science and technology workforce already in place.

- **The Department of Defense cost data on relocating C4ISR to Aberdeen Proving Ground is sound.**

DOD has indicated that the cost of moving C4ISR to APG would be \$822 million. However, as a result of synergies created by the co-location of C4ISR work currently located at several sites, cost savings would be generated in the amount of \$143 million per year by consolidating C4ISR functions at APG. This allows for a payback period of six years and would generate overall savings every year after this period. In fact, the GAO recently reported in testimony before the BRAC Commission that the closure of Fort Monmouth is among the top 10 percent of the DOD's recommendations in terms of cost savings. These recommendations account for 79 percent of total BRAC savings projected by DOD.

Arguments that the move would cost more than what DOD has indicated are based on the "brain drain" argument that has been addressed above and assumptions of military construction costs that are not grounded in fact. In fact, if there is a discrepancy in cost, it would be to the benefit of APG. BRAC recommendations relocating the Ordnance School from APG to Fort Lee will free up additional space to house C4ISR administrative offices and military construction costs for additional infrastructure have been built into the DOD recommendations. In addition, the Enhanced Use Lease projects underway and expected at APG will drive operating costs lower, generating additional savings. Conversely, COBRA runs of a limited consolidation at Fort Monmouth indicate that the payback period for that scenario would exceed 100 years.

- **The creation of a regional "mega-base" to include Fort Dix, McGuire Air Force Base, NAVAIR Lakehurst, and Fort Monmouth will not create C4ISR synergies.**

Creating a regional "mega-base" to include Fort Dix, McGuire Air Force Base, NAVAIR Lakehurst, and Fort Monmouth is a simplistic approach that would do little or nothing to improve the efficiency of developing and fielding C4ISR technologies. Gathering an Army Reserve mobilization base, a fuel tanker air force base, and a carrier support naval base and coupling those facilities with C4ISR functions at Fort Monmouth would be a forced and awkward marriage when compared to the synergistic relationships envisioned under the DOD recommendation to consolidate at APG. Indeed, the "mega-base" concept is simply a rearranging of administrative management that puts all these facilities under one Garrison command, but has no effect on operational capabilities.

Actual consolidation at APG would co-locate the acquisition and contracting functions of Fort Monmouth with the research, testing, and evaluation functions of Army Research Laboratories and the headquarters for the Army Research, Development and Engineering Command located at APG.

DCN: 11881

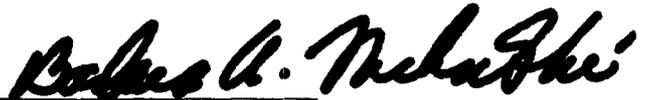
Furthermore, the DOD recommendations recognize APG as a "full spectrum Research, Development, Test and Evaluation installation" and propose consolidating two additional Army Research Laboratory Directorates and the headquarters of the Army Test and Evaluation Command to APG, joining the organizations it manages and that are already located at APG. These are the complexities of the DOD recommendations that the Secretary of Defense referred to in his May 16<sup>th</sup> testimony before the BRAC Commission. Given its overall military value rating, size, and low operating costs APG is the only feasible location to produce these relationships.

Thank you for the opportunity to follow up with you regarding these important matters. We look forward to working with you as the Commission continues to examine the DOD recommendations.

With best regards,



Paul S. Sarbanes  
United States Senator



Barbara A. Mikulski  
United States Senator



C.A. Dutch Ruppensberger  
Member of Congress

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STATE OF MARYLAND  
OFFICE OF THE GOVERNOR

ROBERT L. EHRLICH, JR.  
GOVERNOR

July 14, 2005

The Honorable Anthony J. Principi, Chairman  
Base Realignment and Closure Commission  
2521 South Clark Street, Suite 600  
Arlington, Virginia 22202

Dear *Mr. Chairman*

I write to thank you and your fellow commissioners for the interest and attention given to our Maryland presentation on Friday, July 8<sup>th</sup> at Goucher College. We appreciate the complexities associated with these issues, and the emotions that accompany changes that impact so many communities. In the end, I know you will do what you believe is best for the nation.

In the short time remaining before you conclude your deliberations, Maryland will concisely amplify to the Commission a number of issues that have risen above others. Foremost among these is the proposed move of Army Communications-Electronics Command (CECOM) functions to the Aberdeen Proving Ground. In coordination with our Congressional delegation and local officials, my staff will provide a detailed response to points made by those advocating a reversal of the BRAC recommendation.

We believe we can clearly demonstrate that the Army and Department of Defense were absolutely correct in their assessment that multi-discipline functional consolidations at Aberdeen best serve our nation, and through time will allow for the most efficient and effective fielding of systems essential to our war fighters. We will continue to address workforce issues, specifically what we believe to be an overstated concern about who might move and how those not moving will be replaced, as well as addressing what will be required regardless of location - finding bright, dedicated replacements within a workforce that will undergo significant changes as members reach retirement age.

We will also demonstrate that along with the use of vacated existing facilities, the Army's very aggressive use of public-private sector partnering tools mitigates a fair amount of the expense of new facilities associated with the move. Regardless, as you stated Friday, there are costs and opportunities at several levels, and how we can best provide for our men and women in uniform should remain paramount in our approach.

I wish you Godspeed as you move forward in the BRAC process. Please do not hesitate to contact me if I may be of any further assistance.

Best personal regards.

Very truly yours,

Robert L. Ehrlich, Jr.  
Governor



Robert L. Ehrlich, Jr.  
*Governor*

Michael S. Steele  
*Lt. Governor*

Aris Melissaratos  
*Secretary*

Christopher C. Foster  
*Deputy Secretary*

July 26, 2005

The Honorable Anthony J. Principi  
Chairman  
Base Realignment and Closure Commission (BRAC)  
2521 South Clark Street, Suite 600  
Arlington, VA 22202

Dear Mr. Chairman:

The Department of Business and Economic Development (DBED) would like to provide you with updated information which Governor Ehrlich promised in his letter to you dated July 14, 2005. The following is a detailed response to points made by those advocating a reversal of the BRAC recommendations regarding the proposed move of Army Communications-Electronic Command (CECOM) functions to the Aberdeen Proving Ground. This reflects actions accomplished in coordination with our Congressional delegation and local officials.

Maryland stands ready – we have experience. Maryland has experience teaming with the military in establishing the NAVAIR Model – a Center of Excellence - which has received recognition throughout the DoD. The NAVAIR Model consolidated and streamlined functions from 16 separate geographic locations into a single, integrated air warfare research, development, test, evaluation, and acquisition center.

Congressman Hoyer has been an active participant with the Navy in its consolidation at Patuxent River and sent you his thoughts separately. Maryland has shown it can accommodate moves that require quick recapitalization of a technical workforce. Large numbers of personnel moved to St. Mary's County, Maryland from various locations. The percentages of personnel who transitioned significantly exceeded predictions:

- 80% from Crystal City – Naval Air Systems Command;
- 41% from Trenton, New Jersey – Naval Air Propulsion Center (NAPC); and
- 46% from Warminster, Pennsylvania – Naval Air Development Center (NADC).

The 2005 BRAC military value score assigned to Patuxent River is a reflection of the success of the previous relocation of multiple organizations to Maryland.

The Honorable Anthony J. Principi  
July 26, 2005  
Page 2

Maryland stands ready – we have the workforce. We looked into workforce issues using the Milliken Study as our data point. Here are some of the high points: Maryland is first among states in the nation with the highest percentage of professional and technical workers, and is second among the states in its number of people holding advanced degrees. Maryland has a large labor market for recruiting which can help mitigate these risks. Additionally, the move would create an increased synergy and enhanced program efficiency resulting in the need for fewer individuals to complete the mission.

Finally, it has been suggested that Ft. Monmouth has suffered from a lack of newly trained, highly motivated individuals bringing the latest in skills and technology to complex projects. This movement of CECOM to APG would result in a refreshed, creative, “brain enhanced” workforce. Congressman Ruppberger has sent a letter to the Commission with additional information regarding the opportunities for hiring highly qualified personnel to support the C4ISR mission.

Maryland stands ready – we have the technological know-how. I would like to clarify some of the presentation heard at the July 8, 2005 hearing. Here is what has been reported to me by one of Northrop Grumman’s chief scientists supporting the Aberdeen Proving Grounds (APG): The Army Research Laboratory’s Survivability/Lethality Analysis Directorate (SLAD) at Aberdeen took the initiative to endorse and fund project suggestions by their field test and design group at the White Sands Missile Range. The SLAD designed and developed, in collaboration with New Mexico State University, the countermeasure system that is being fielded, and this design will continue to be fielded. It is one of four concepts that are now managed by the Program Executive Office IEW&S at Ft. Monmouth in a program called Warlock. The alternative designs appear to have been created by contractors, not by the Ft. Monmouth staff, and its contractors who provide the SLAD field support. Every part of the logistics support and program management is, by nature, highly portable. We have been unable to discern a single aspect of this program that would be harmed if the functions and staffing were transferred elsewhere, at any time. The SLAD team was one of ten Army groups honored for their inventions for the year 2004, because their creation works. The Army’s active-duty divisions and the Training and Doctrine Command chose the ten winning programs for their impact on Army capabilities. Nominations for the program were submitted from across the Army laboratory community.

All of the above is all a matter of public record. As you know, contractors from different companies located in a variety of states support programs important to the C4ISR mission area. Program managers are also located at various locations. Fort Monmouth’s role is largely acquisition management and not engineering. This is the case in a number of capabilities which Ft. Monmouth cited. Many of the Army’s leading scientists and engineers located at APG have worked with these and other C4ISR programs. On our visit with the BRAC staff we will present a matrix which identifies the different systems/capabilities along with current locations of the RDTA&E. Rest assured continuity of this and other systems are assured under the DoD recommendation.

The Honorable Anthony J. Principi  
July 26, 2005  
Page 3

Maryland stands ready - but we have questions. As we continue to analyze the New Jersey portion of the testimony at the July 8, 2005 BRAC hearing in Baltimore, Maryland, there are more and more questions without answers. In particular, the "megabase" proposal raised at the hearing is not well defined, it is incomplete, and the whole argument drew a conclusion without facts and logic to support it. The Army Alliance in Aberdeen is preparing a more detailed paper on this subject and will be sending it to you this week for your consideration. They will also speak to the issue of additional cost avoidance which makes the movement of CECOM even more affordable than current cost models.

Maryland stands ready - to serve. You have received numerous letters of expression of support from Senators Sarbanes and Mikulski, Governor Ehrlich, our State legislators and our local leaders. I assure you that Maryland federal, state and local officials, business leaders and the community will welcome the people from Ft. Monmouth. The State has a team at DBED dedicated to providing strong support throughout the consolidation and continues today and into the future.

Maryland is prepared - and proud. We are prepared to use our vast experience, highly trained workforce, and ability to leverage federal, State and local resources in supporting the establishment of the Land C4ISR Center of Excellence at Aberdeen Proving Ground. We are proud to support our military in its defense of our nation.

Thank you for your time and consideration. If you have any questions or need additional information, please do not hesitate to contact me or BGen J.M. "Mike" Hayes, USMC (Ret.), Director, Office of Military and Federal Affairs, DBED, at (410) 767-2988, toll free at 1 (888) 246-6736, or email at [mhayes@choosemaryland.org](mailto:mhayes@choosemaryland.org).

Sincerely,



Aris Melissaratos  
Secretary

cc: BGen J.M. "Mike" Hayes, USMC (Ret.), Director, Office of Military and Federal Affairs, DBED

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Congress of the United States  
House of Representatives  
Washington, DC 20515-2002

July 25, 2005

ASSISTANT DEMOCRATIC WHIP

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TERRORISM

NATIONAL SECURITY, EMERGENCY  
AND INTERNATIONAL RESPONSE

The Honorable Anthony Principi, Chairman  
Base Closure and Realignment Commission  
2521 S. Clark St.  
Suite 600  
Arlington, VA 22202

Dear Chairman Principi:

I am writing today to express support for the Department of Defense's Base Realignment and Closure recommendations, particularly the recommendation to move the C4ISR organizations from Ft. Monmouth, New Jersey to Aberdeen Proving Ground (APG). The intention of BRAC 2005 is to reconfigure the current infrastructure [bases] into one in which operational capacity maximizes both war fighting capability and efficiency. The development of "Centers of Excellence" across the nation will create enhanced programs and synergies that will benefit the war fighter immensely.

In this process, both Maryland and New Jersey appeared before the BRAC Commission to express their position on this matter. During those meetings and since, arguments have been presented which suggest that Department of Defense had errors in their decision making process and calculations. I use this opportunity, and will be following up with a phone call, to outline the concerns raised by the New Jersey delegation and reiterate the Department of Defense's rationale for making this recommendation (the closing of Ft. Monmouth and relocation of C4ISR to APG to establish a Land C4ISR (Center of Excellence.)

Monmouth claim 1- Radical changes to the military should not be made during a time of war.

Response - Such a claim would negate any BRAC action anywhere during this BRAC round and few of the past rounds. The overarching need is for efficiency, adaptability to current and potential threats and modernization demanded by proper utilization of finite defense resources. If there is a supportable promise of achieving continuity of service to the warfighter, then timing is irrelevant.

Monmouth claim 2- Closing Ft. Monmouth would have a negative impact on the war fighter.

Response - The prime example cited was the Warlock IED jamming system. This system was developed by the Army Research Laboratory (ARL), headquarters at APG with components at White Sands as well as Fort Monmouth. Fort Monmouth's role was largely acquisition management not engineering. Continuity of this system is assured under the DOD recommendation.

Monmouth claim 3- A "Brain Drain" would be created by this movement

Response - Early estimates of numbers of employees willing to move, is always greatly inaccurate. Maryland's previous experience with movement of other military installations showed up to 80% of the workforce ultimately relocating to maintain employment. 45% of Ft. Monmouth's workforce is at age 50+ with a significant portion likely to retire in the near future. Maryland has many citizens who have moved from across the nation and choose Maryland for their retirement home. Maryland is first among states in the nation with the highest percentage of professional and technical workers and is second among the states in its number of people holding advanced degrees. Maryland has a larger labor market than New Jersey for recruiting which can help mitigate these risks. Additionally, the move would create an increased synergy and enhanced program efficiency resulting in the need fewer individuals to complete mission. Finally, it has been suggested that Ft. Monmouth has suffered from the lack of newly trained, highly motivated individuals bringing the latest in skills and technology to the project. This movement of C4ISR to APG would result in a refreshed, creative, "brain enhanced: workforce.

Monmouth claim 4- DOD cost data on relocating C4ISR is flawed.

Response - The wild assumption of construction costs suggested by Ft. Monmouth are inconsistent with GAO certified estimates. By locating this capability to APG, DOD will realize over \$143 million in cost savings each year - quickly recapturing any short term costs associated with the moving of C4ISR. The moving costs that Ft. Monmouth suggest do not include the relocation of the Ordnance school and the ability to utilize then vacant space. Additionally, an Enhanced Use Lease Program already established at APG will further provide additional financial benefits to the military.

Monmouth claim 5- Monmouth should be part of a mega-base including Dix, McGuire, Lakehurst and Monmouth.

Response- This configuration would not improve the efficiency of developing and fielding C4ISR technologies. This mega-base would consist of a fuel tanker airforce base, a carrier support naval base and coupling those facilities with C4ISR functions. Absent from this configuration are the synergies intended by this BRAC.

The movement of the C4ISR organizations to Aberdeen makes sense. It supports the original intention of the DOD BRAC recommendations and will enhance greatly the ability of our nation to protect our warfighter and grow DOD technology.

Signed,

*C.A. Dutch Ruppensberger*  
C.A. Dutch Ruppensberger  
Member of Congress

DCN: 11881

DCN 4714  
Executive Correspondence

Congress of the United States  
House of Representatives  
Washington, DC 20515

July 14, 2005

Mr. Philip E. Coyle III  
Commissioner  
Base Realignment and Closure Commission  
2521 South Clark Street, Suit 600  
Arlington, VA 22202

Dear Commissioner Coyle:

It was good seeing you at the Regional Hearing in Baltimore, Maryland, on July 8. I hope you found New Jersey's presentations about Fort Monmouth helpful and informative. I want to take this opportunity to follow-up on the questions you raised at the hearing, but also want to reiterate our argument that C4ISR capability would be diminished greatly, immediately, and for at least a decade by the proposed closure and move. This is independent of cost and payback calculations.

You are correct that the Department of Defense (DOD) failed to account fully for workforce transition costs, and we have attempted to capture the significant cost of recruiting and training a potential new workforce at Aberdeen Proving Ground (APG). However, in the data made available to us, the salary cost savings from closing Fort Monmouth and the salaries added for new people at Aberdeen are considered in the same manner, and not included in COBRA runs (with the exception of positions eliminated, and the pay differential that results).

Our analytical team, led by Vice Admiral (ret.) Paul Gaffney II, conducted a thorough analysis of the recruitment and training costs for reconstituting a workforce at Aberdeen. A summary of our calculations is attached. In every case, we have been conservative in our assumptions.

When we submitted our report to the BRAC Commission on July 8, we calculated the payback period to be 21 years using a "constant dollar" payback period. However, all BRAC recommendations use a "net present value" payback period. Using the "net present value" data, the payback period for moving Fort Monmouth would be 33 years. (A correction was submitted to Chairman Principi by VADM Gaffney on July 12.) As you will see, the payback period expands to 44 years when costs for reconstituting a new workforce are included.

Attached you will find a short summary of our calculations for recruitment and training costs, including our sources, assumptions, and methodology. Also attached is a more complete answer to your second question, which sought a listing of programs in use in Iraq that would be disrupted by a closure of Fort Monmouth. A complete, more digestible version will follow next week.

I hope this information is useful to you. Please do not hesitate to contact me if I can be of further assistance.

Sincerely,



Rush Holt  
Member of Congress

### Workforce Models

There are extensive studies available in the body of pertinent literature that analyze and describe recruitment, training, and lost productivity costs when an employee must be hired to backfill the "leaver," i.e., the employee who must be replaced. For example:

- "Private Sector Downsizing: Implications for DoD" by Michael L. Marshall and J. Eric Hazell (published in *The Acquisition Review Quarterly*, Spring 2000) listed several parameters that apply to replacing personnel, including advertising and marketing; recruitment, hiring, and training; overtime to personnel taking up the slack; productivity losses; and lost training for departed workers. The article concludes, "Regardless of the exact number of businesses, there is widespread agreement that *turnover costs are somewhere between high and Olympian.*"
- "The Business Cost and Impact of Employee Turnover" by William Bliss of Bliss & Associates (2000) concludes that the cost of employee turnover is at least 150% of the leaver's annual salary.
- A Price Water-House Saratoga Institute workforce replacement model cited in "It's Costly to Lose Good Employees" by J. Fitz-enz (1997) estimates that the total cost of turnover ranges from 100 to 200% of the leaver's pay and benefits.
- A workforce replacement study conducted by Kwasha Lipton (referenced in *The Acquisition Review Quarterly* Spring 2000) concludes that replacing exempt workers costs 150% of the leaver's salary, and for non-exempt workers, it costs 175% of the leaver's salary.

### Assumptions

- DoD's analysis reflects a transfer of 3,879 civilians from Fort Monmouth and 767 from Fort Belvoir to APG for a total of 4,646 civilian personnel. Of this total, history and recent polling suggest that a maximum of 20% of employees are expected to transfer to their new location. The remaining 80% (3,717 employees) would have to be hired at APG. The bulk of these employees are scientists, engineers, and highly special technical experts.
- For purposes of this analysis, 15% of the 3,717 employees are considered administrative/clerical (and therefore have lower base salaries).
- Given the differences of the functional knowledge required to develop, acquire, test and field C4ISR systems and equipments, the professional skills domain is split into two subsets; Scientists/Engineers (SE) and Acquisition/Logistics (AL).
- COBRA used a civilian salary of \$59,959, an unrealistic figure for recruiting and training senior and journey-person SE and AL personnel. Using the Bliss study as the model, we have used the salary of a GS-14/Step 5 as representative of senior employees. For journey-person (JP) employees (GS-13 and below), we have used the salary of a GS-12/Step 5. In all cases, 28.9% is applied for cost of benefits.
- We have conservatively included lost productivity costs only during the period of time the new employees are being trained. Also, we have not included any productivity impacts likely to result from an immature workforce, such as program disruptions.

Conclusions*High End of the Cost Spectrum.*

1. Recruiting Cost Factors. The Bliss study percentage of full salary (150%) was applied for senior SEs and adjusted down for JP SEs (75%), Senior AL (100%), and JP AL (75%) positions.
2. Recruiting Calculations.
  - a.  $160 \text{ SE} \times \$129,096 \text{ SALARY} \times 150\% = \$30,983,000$
  - b.  $1200 \text{ JP SE} \times \$91,866 \text{ SALARY} \times 75\% = \$82,680,000$
  - c.  $211 \text{ AL} \times \$129,096 \text{ SALARY} \times 100\% = \$27,239,000$
  - d.  $1588 \text{ JP AL} \times \$91,866 \text{ SALARY} \times 50\% = \$72,942,000$
  - e. Subtotal = \$214 M
3. Training Costs Factors. Training is conservatively estimated to be required for at least a three-year period. The assumption is that the newly hired SE employee will be in a training environment for three months of each year for three years, and for an AL employee, two months per year for three years. That is the time considered necessary to bring the newly hired individuals to a level where they are able to perform and contribute commensurately with the individuals they are replacing. Training costs are calculated as a percentage of full salary, on the assumption that training time is non-productive in the year of training.
4. Training Calculations
  - a.  $160 \text{ SE} \times \$129,096 \times .25 \times 3 = \$15,492,000$
  - b.  $1200 \text{ JP SE} \times \$91,866 \times .25 \times 3 = \$82,679,000$
  - c.  $211 \text{ AL} \times \$129,096 \times .167 \times 3 = \$13,647,000$
  - d.  $1588 \text{ JP AL} \times \$91,866 \times .167 \times 3 = \$73,087,000$
  - e. Subtotal = \$185 M
5. Bottom Line. Based on the set of assumptions above, the high end recruiting and training cost is \$399M (\$214M for recruiting, \$185M for training).

*Low End of the Cost Spectrum*

1. Recruiting Cost Factors. Drawing on other conclusions from other studies, the Bliss study percentage of full salary was adjusted significantly downward to establish a lower bounding for the range: senior SEs (75%); JP SEs (50%); senior AL (50%); JP AL (30%)
2. Recruiting Calculations.
  - a.  $160 \text{ SE} \times \$129,096 \text{ SALARY} \times 75\% = \$15,492,000$
  - b.  $1200 \text{ JP SE} \times \$91,866 \text{ SALARY} \times 50\% = \$55,120,000$
  - c.  $211 \text{ AL} \times \$129,096 \text{ SALARY} \times 50\% = \$13,620,000$
  - d.  $1588 \text{ JP AL} \times \$91,866 \text{ SALARY} \times 30\% = \$43,765,000$
  - e. Subtotal = \$128 M
3. Training Costs Factors. Again, training is conservatively estimated to be required for at least a three year period. The assumption is that the newly hired SE/AL employee will be in a training environment one month of each year for three years to bring the newly hired individuals to a level where they are able to perform and contribute commensurately with the individuals they are replacing. Training costs are calculated as a percentage of full salary, on the assumption training time is non-productive in the year of training.
4. Training Calculations
  - a.  $160 \text{ SE} \times \$129,096 \text{ Salary} \times .083 \times 3 = \$5,143,000$
  - b.  $1200 \text{ JP SE} \times \$91,866 \text{ Salary} \times .083 \times 3 = \$27,450,000$
  - c.  $211 \text{ AL} \times \$129,096 \text{ Salary} \times .083 \times 3 = \$6,783,000$
  - d.  $1588 \text{ JP AL} \times \$91,866 \text{ Salary} \times .083 \times 3 = \$36,325,000$
  - e. Subtotal = \$76 M
5. Bottom Line. Based on the set of assumptions above, the low end recruiting and training cost is \$204M (\$128M for recruiting, \$76M for training).

*Return on Investment (ROI)*

Taking the midpoint between the high estimate and low estimate, the amount of \$300M factored into the COBRA formula yields an ROI (payback) of 44 years.

**Current Fort Monmouth and Team C4ISR Support to Operation Iraqi Freedom**

**Quick Response: Aircraft Survivability.** This Team C4ISR effort provides aviators from Army and the other military services with life-saving systems. Team C4ISR develops, fields and sustains the radar warning receivers and missile warning systems found on Army, Navy, Marine Corps, Air Force, and Presidential Fleet helicopters. These systems rely on software that contains current threat information tailored to specific regions of the world. Just prior to the outbreak of hostilities in Iraq, Team C4ISR updated that software, in record time, with new threat information for Southwest Asia. The team also adapted the systems to operate better in the harsh desert environment.

**Quick Response: Guardrail Common Sensor System.** Guardrail is a theater-level airborne signals intelligence collector system. Due to geopolitical boundaries and restrictions, it was not able to function as designed in Operation Iraqi Freedom. Team C4ISR field software engineers, deployed with the system, assessed the problem and reported it to Team C4ISR at Fort Monmouth. Our engineers developed a solution and fielded it in less than a week allowing Guardrail to collect the actionable intelligence that was vital to our military success. Bottom line here is that our forces need Guardrail to locate threats so they can neutralize them. By fielding our software solution, we saved warfighter lives.

- **GUARDIAN EAGLE** is a Quick Reaction Capability (QRC) to insert into the Guardrail/Common Sensor (GR/CS) Fleet of aircraft the ability to Detect, ID and locate LPI communications. GR/CS was the only Army Tactical Airborne asset in OIF with this capability. The two battalions equipped with this capability provided unique essential information on High Value Targets in the months leading up to hostilities as well as during the actual conflict. Team C4ISR continues to work with the units to provide constant updates to this capability. This QRC was accomplished on the first two systems four months after receipt of funds. We were uniquely equipped to accomplish this because of extensive technical expertise with all the GR/CS systems gained over twenty years of designing, building and fielding these systems. Other factors that contributed to our success were our flight activity at Lakehurst NAEC and our unique location that affords us the quiet zone in the warning areas over the Atlantic for calibration, and our ability to acquire the TCDL link located on the roof of building 600 and bring the data into our labs for analysis.

**Lightweight Counter Mortar Radar Support.** The LCMR detects and locates enemy mortar firing positions rapidly and with deadly accuracy so that coalition forces can instantly destroy them. Team C4ISR managed the accelerated development of LCMR to meet urgent warfighter needs. Team C4ISR helps field the LCMR to units, provides training on its use to soldiers throughout the theater and will work to keep it running around the clock.

**FireFinder Radar System.** Firefinder tracks and locates the source of incoming mortars and rockets. The Radar rapidly became an extremely critical system in the OEF/OIF

theater, with a demand for the deployed systems to essentially be available 100% of the time to provide troop protection. Since the onset of hostilities several new capabilities have been added to the Firefinder system, through a series of new software packages. These enhanced capabilities come in direct response to the ongoing and developing threat in Iraq and Afghanistan. For example, the ability to detect mortar fire was improved by 25 percent. Of note is the new capability to provide an "early warning capability" as well as an intercept capability. Team C4ISR community has taken extraordinary measures to support the deployed systems, and to get returning systems ready for re-deployments. Daily contact with the units in theater is maintained, spare parts and maintainers have been positioned forward and intensive transportation and tracking has been implemented. Additional LARs have been sent forward, and a Telemaintenance Capability has been established to assist unit maintainers and operators in areas where transportation to the radar sites is difficult, dangerous and LAR support may be delayed. Performance of the Radars in the harsh conditions of OEF/OIF has been exceptional, thanks to the dedicated support provided by the ~~Fort Monmouth~~ community.

**AN/PPS-5D Man-Portable Battlefield Surveillance Radar.** PPS-5D is the US Army's Man-Portable Battlefield Surveillance Radar system used to target enemy personnel and vehicles. This Radar system played an essential role in the protection of U.S. forces at the beginning of Operation Iraqi Freedom when it was the only system available that could penetrate through a sandstorm and successfully target approaching Iraqi tanks, leading to their destruction. It was successfully used throughout Operation Iraqi Freedom (OIF) by the 82nd Airborne Division (Ft. Bragg), the 103rd MI Battalion (Ft. Stewart), the 101st Airborne Division (Ft. Campbell) and the 312th MI Battalion (Ft. Hood). The radar was an essential system used to target enemy personnel and vehicles. During the sand storm early on in the conflict, the Army was forced to remain stationary, making them vulnerable to enemy attack. The AN/PPS-5D radar proved to be the only system available that could penetrate the wind driven sand and dust to locate enemy targets. Through the sand and dust, the radar successfully targeted approaching Iraqi T-72 tanks at nearly 20km, leading to their destruction. The radar was also used for force protection and perimeter surveillance, once the coalition entered Baghdad.

**TROJAN Special Purpose Integrated Remote Intelligence Terminal (SPIRIT).** More than 20 TROJAN Special Purpose Integrated Remote Intelligence Terminal (SPIRIT) systems were deployed to U.S. Army and U.S. Marine Corps units and operational in support of Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF). Both the AN/TSQ-190(V) TROJAN SPIRIT II and the AN/TSQ-226(V) TROJAN SPIRIT LITE variants have been utilized to provide crucial secure communications reachback capabilities, to include near-real-time data, Unmanned Aerial Video (UAV) video, and other video, into national networks and databases to support Military Intelligence (MI), force protection, and other requirements. Over 20 systems were deployed by the US Army and US Marine Corps during height of OIF and remained operational availability rates of over 95 percent. The TROJAN Program is managed by Team C4ISR, TROJAN Systems Integration and Fielding Office (SIFO), ~~Fort~~ ~~Monmouth~~, NJ.

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**Counter-Radio Controlled Improvised Explosive Device (C-RCIED) System**

**(WARLOCK)**. Beginning in FY03, existing Shortstop Electronic Protection System (SEPS) technology was modified by Team C4ISR into several variants of an Electronic Countermeasures (ECM) system to protect convoys, warfighters, engineers, Unexploded Ordnance (UXO) squads, and VIPs from various RCIEDs. This program, a Quick Reaction effort in response to multiple Operational Needs Statements from MNC-I and CFLCC, was conducted jointly with Team C4ISR and the US Army Rapid Equipping Force (REF), and fielded nearly a thousand units within nine months in direct support of OEF/OIF. To date 1000+ systems, of varying capability and target set have been fielded and are protecting troops today.

**Improvised Explosive Device Characterization Lab**. The Lab began operation during 1QFY04 to identify the performance characteristics of remote controlled triggers used to activate improvised explosive devices. Analyses conducted by this lab identify deficiencies in existing or emerging coalition systems and are provided to Team C4ISR Countermeasures and IED detection programs for immediate action. I2WD also worked closely with the FBI's Terrorist Explosive Device Analysis Center (TEDAC) and has on site personnel at the TEDAC facility. These technicians conduct preliminary evaluations of incoming devices and prioritize the devices for analysis by the Characterization Lab.

**SIGINT Support**. Team C4ISR has provided extensive expertise in the area of Signals Intelligence (SIGINT) supporting the National Security Agency (NSA) Army Cryptologic Operations Office (ACO) and the Intelligence and Security Command (INSCOM). Team C4ISR personnel have provided specialized technical, operational, logistical and maintenance support for both OEF and OIF. We have developed and provided technology solutions known as Quick Reaction Capabilities (QRC's) in response to requests for assistance from the field to acquire, identify, collect and exploit signals of interest. Team C4ISR personnel have deployed to the field to assist with training and operation of SIGINT equipment fielded as a result of these QRCs to answer critical SIGINT needs. Personnel possessing extensive knowledge and experience in SIGINT technology and the application of this technology directly supported the Combined Forces Land Component Command and served as SIGINT Operations Officers in the Joint SIGINT/Electronic Warfare Coordination Cell.

- **Prophet**. Prophet detects, collects, and exploits conventional and modern military emitters. A secondary mission will be Electronic Warfare against selected enemy emitters to interrupt, spoof, disrupt, and/or disable target command and control nodes. Prophet is mounted on a High Mobility Multipurpose Wheeled Vehicle (HMMWV), with a quick-erect seven-meter antenna mast. Prophet also has a dismounted man-pack version, which supports airborne, early entry, and urban operations. Both configurations provide intelligence support to a division, Stryker/heavy/light brigade, regiment, UA or task force. This intelligence support provides indications, warning, location, tracking, and identification of threat emitters. Prophet will cross-cue other battlefield sensors (e.g. tactical unmanned aerial vehicles, PBS2 radars, etc.) as

well as provide additional data that may confirm indications and detections from the other manned and unmanned battlefield sensors. Testimonials to PROPHET include:

- “Long-haul communication capability and data downlink need to be added to the Prophet.”
  - “Lack of TACSAT bandwidth for SIGINT hindered the ability to communicate at TS/SCI level with ground collectors.” -10th MTN OEF IBOS AAR
  - “The Prophet Hammer was the preferred SIGINT collection system available to the 4th ID.” - 4ID IBOS Way Ahead Recommendations to LTG Alexander Army G2 - 11 May '04
  - 101st CG states: “Prophet is invaluable”
- **PROPHET HAMMER.** Team C4ISR developed this specialized Signals Intelligence (SIGINT) and provides support to the Intelligence and Security Command (INSCOM) during Operation Iraqi Freedom by fielding PROPHET HAMMER systems, training, and providing post-deployment support to MI units. Team C4ISR engineers and intelligence specialists are still in Iraq with the same MI units providing long-term sustainment support and sustainment training.

**STARGRAZER.** This provides a previously unavailable Special Purpose Electronic Attack (SPEA) capability specifically developed and deployed in under 9 months as a Quick Reaction Capability for OEF and OIF forces. The system is composed of an “Extreme” ruggedized PC fitted with specially developed PCI based system capabilities. Additional components include multiple antenna options, an external power amplifier, and a complete power subsystem allowing the system to operate with a BB-390 battery pack, HMMWV, commercial vehicle or 110/220V AC power. Initially, Team C4ISR delivered ten (10) units to CFLCC/MNC-I OIF/OEF. The STARGRAZER system has gone through two subsequent capability upgrades to include additional capability for OEF/OIF deployed forces as well as other Team C4ISR customers supporting the Global War on Terrorism (GWOT). In addition, five (5) of these systems were recently transitioned to the Naval Central Command (NAVCENT) in support of counter narcotics patrolling. Team C4ISR continues to support STARGRAZER users by providing all necessary training and system support.

**SANDPIPER (SP).** SP is a “Leave Behind” Quick Reaction Capability (QRC) prototype consisting of a HMMWV with an Electronic Warfare (EW) system shelter, support vehicle with generator, and multiple antenna configurations.

**COUNTER ROCKET, ARTILLERY, MORTAR (C-RAM).** C-RAM utilizes the Lightweight Counter Mortar Radar (LCMR) to provide initial cueing for C-RAM “Sense and Warn” and as the first line sensor providing incoming target track to C-RAM Command and Control (C2) net for active engagement and interception.

**LYNX SYNTHETIC APERTURE RADAR.** Team C4ISR engineers have been providing technical support and training in the operation and use of the Lynx Synthetic

Aperture Radar as deployed on an IGNAT UAV by Team C4ISR. Development of techniques in change detection for the detection of small targets has been ongoing and is being utilized in the field. Complementary efforts in Change Detection are ongoing with other agencies.

**Joint Users Interoperability Communications Exercise (JUICE).** Team C4ISR received reports from Kuwait regarding the inability to make secure wireless calls through the local wireless provider. Technically, the data portion of the call (i.e. the port needed to go secure), would not work. Based upon the experience and expertise of software engineers stationed at ~~Fort Monmouth~~, experimentation began immediately with several wireless systems that might provide a solution. Team C4ISR software engineers began a dialogue with the wireless provider in theater to better understand the local conditions and the exact nature of the problem. Combining the engineering expertise along with the test bed capabilities at ~~Fort Monmouth~~ enabled the software engineers to recreate the problem and develop and deliver the required capability. The solution enables secure wireless calls in the theater of operations to be placed; thereby enabling command and control among deployed forces.

**Combined Arms Planning and Execution Monitoring System (CAPES).** CAPES was provided to the 4th Infantry Division for use in Operation Iraqi Freedom. This unique system automates the development of detailed battle planning and provides visual situational awareness of operations during execution of battle plans. CAPES was named one of the top ten technologies in the US Army Material Command Greatest Inventions Program for 2002.

**Joint Satellite Communications Engineering Center (JSEC).** The JSEC has provided hotline and on site support to the troops in Iran and Afghanistan by responding to numerous requests for technical support.

- Over the last year the JSEC Strategic Systems Lab has responded to 75 requests for assistance from the Teleport/ STEP sites at Landstuhl & Ramstein Germany, Bahrain, Wahiawa, Hawaii, and Ft Buckner, Japan. These sites provide most of the communications to and from our troops in that area of the world. An example of the kind of response by Team C4ISR was the development of procedures and assistance in restoral of critical satcom network control.
- The JSEC Tactical Systems Lab (TSL) has provided extensive support to warfighters in both Afghanistan and Iraq. The TSL provides 24/7 Help Desk support to SMART-T and SCAMP EHF satellite communications terminals users in the field. During FY04 the Help Desks responded to approximately 200 calls and emails from users in both Afghanistan and Iraq. This level of support continues in FY05 and is expected to continue for the foreseeable future. The nature of the support includes troubleshooting issues with the operation of the terminals, communications planning, logistics and upgrades to terminals software. The TSL also assists units scheduled to deploy with equipment preparations and terminal training.

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- The JSEC TSL has conducted an upgrade of software and hardware to 82 SMART-Ts deployed to SWA. The TSL has also conducted the upgrade on 23 SMART-T returned from SWA and redeployed.
- The JSEC TSL also supported urgent materiel releases of the military satellite communications Global Broadcast System (GBS) receive suites for the 101<sup>st</sup> AB, 10<sup>th</sup> Mountain Division, Stryker Brigade Combat Team (SBCT) 3 and V Corp, who are all deploying to Iraq.
- A representative from the JSEC TSL also provided on site field support to the 3<sup>rd</sup> and 5<sup>th</sup> Special Forces Group and AF Special Operations Command in Afghanistan, Uzbekistan, Oman, Pakistan and Kuwait from Feb to Apr 2002. Support provided users with Internet Protocol communications over the military satcom system known as Low Data Rate Milstar, as well as communications planning to the Region Satellite Support Center.

**Joint Network Node Capability Spiral 1 (JNTC-S).** The Joint Network Node Capability (JNTC) Spiral 1) has been fielded to the 3ID currently deployed in Iraq and will be fielded to all other Army Divisions rotating into theater. The JNTC is the main communications backbone for the deployed Warfighters. The JNTC is composed of Unit Hubs, Joint Network Nodes (JNNs), Battalion Command Post Nodes (BnCPN) and associated SATCOM KU Band Trailers. Team C4ISR Engineers directly support these systems prior to and during deployment. Team C4ISR Engineers develop initial system configurations and are on call 24/7 to help the deployed units with troubleshooting or reconfiguration. Team C4ISR engineers deploy to OEF/OIF with JNTC equipped units to assist in initial setup and configuration.

**Stryker Brigade Combat Team Systems.** Brigade Subscriber Nodes (BSNs), Network Operations Center – Vehicles (NOC-Vs) and Battlefield Video Teleconference Systems (BVTCs) have been fielded to SBCT 1, 2 and 3 and are currently deployed in Iraq with SBCT-2. Team C4ISR Engineers directly support these systems prior to and during deployment. Team C4ISR engineers designed, developed, integrated, and fabricated these systems while providing 24/7 technical support to assist with troubleshooting.

- The BSN provides secure and non-secure backbone IP switching and network services with RF data rates of up to 8 Mbps and reachback capability over Secure Mobile Anti-jam Reliable Tactical Terminal (SMART-T) and legacy satellite systems. It incorporates a legacy gatekeeper to allow one seamless global numbering plan for all subscribers whether connected to BSN or Mobile Subscriber Equipment (MSE).
- The NOC-V provides the S6 with an operational facility and an integrated means to plan, manage, monitor and control tactical systems and networks within their management domain. The NOC-V contains a Force XXI Battle Command Brigade and Below (FBCB2) suite for battlefield Situational Awareness (SA) message traffic, a Tactical Internet (TI) Manager for the Internet and TOC management, a Global

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Broadcasting System (GBS) for watching worldwide news and the Armed Forces Network in the field, and radio links via Single Channel Ground and Airborne Radio System (SINCGARS), Enhanced Position Location Reporting System (EPLRS), and Near Term Digital Radio (NTDR).

- The BVTC provides support to the TOC's at all echelons down to Brigade. Despite being separated by many kilometers, the BVTC capability gives the commander and his staff the tools to plan face-to-face and coordinate activities far more effectively and quickly than before. BVTC was chosen as a critical component for the STRYKER BCTs, the JNTC-S 3<sup>rd</sup> Infantry Division (ID) effort, and the Baseband Node (BBN) program.

**High Frequency Tracker & Communicator.** The HF Tracker and Communicator is government-developed and over twenty-five copies have been distributed throughout the Army to include units in Afghanistan and Iraq. The HF Communicator is a Graphical User Interface (GUI) used to send text messages from the ground via either the AN/PRC-138 or AN/PRC-150 Harris HF radios directly to an aircraft via the Control Display Unit AN/ARC-220 Aviation HF radio platform. The HF Tracker and HF Communicator systems are credited with helping to save lives in the field. We have received positive feedback on its use and were notified about the following message: "The 68 MED Operations NCO reported a MEDIVAC aircraft was returning from a remote site when the Operations Center learned two critical casualties had been brought to the air strip after the aircraft left. (Aircraft was BLOS from both ends of flight.) Using HF-Tracker and the ARC-220 HF system he was able to direct the pilots to return and pick up the casualties. The HF Communicator sent messages and pilots took required action and the casualties were saved."

**Portable Emergency Broadband System (PEBS).** The PEBS network is designed to facilitate digital access (i.e., IP voice, video, and data) for Warfighters, First Responders, and other emergency response personnel in disaster, combat, or underground areas. Through use of easily deployable wireless repeaters or Breadcrumbs (BC), rapid setup of a reliable multi-hopping network will be achieved. Breadcrumbs are small wireless meshing bridges and access points that allow stand-alone networks to quickly organize in places where there is no standing infrastructure. BC uses ad-hoc networking technology to create a self-healing network that will offer wireless connectivity to any client within range. S&TCD equipped 33 units, including 13 Supercrums, 8 Breadcrums and 12 Wearablecrums, under the Rapid Equipping Force (REF) Initiative to deploy with the 3rd Bde, 3rd ID to meet its operational needs in Iraq. These units were shipped to OIF units in December 2004.

**Night Vision and Infrared.** Team C4ISR has provided a variety of specialized Image Intensification and Thermal Infrared systems that augment the capabilities of existing, fielded equipment. New hand held and robot mounted thermal sensors have been used by Soldiers conducting combat operations in Afghanistan. Wide field of view, night vision goggles have also been fielded to ground and airborne for fighting during urban

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operations. Team C4ISR has already deployed over 30 different prototype and limited quantity systems that are meeting the unique mission requirements in Iraq and Afghanistan.

**Advanced Field Artillery Tactical Data System (AFATDS).** The Advanced Field Artillery Tactical Data System (AFATDS) provides Army, Navy, and Marine Corps automated fire support command, control and communications. AFATDS pairs targets to weapons to provide optimum use of fire support assets. AFATDS automates the planning, coordinating and controlling of all fire support assets (field artillery, mortars, close air support, naval gunfire, attack helicopters and offensive electronic warfare). AFATDS will perform the fire support Command, Control, and Coordination requirements at all echelons of field artillery and maneuver, from Echelons above Corps to Battery or Platoon in support of all levels of conflict.

- AFATDS is the digitized sensor to shooter link providing automated technical and tactical fire direction solutions, fire asset management tools and decision support functionality. AFATDS functions from firing platoon through Echelon above Corps. AFATDS is the fire support node of ABCS. It enhances dominant maneuver, survivability and continuity of operations for Joint Force Commander.
- AFATDS system is deployed in support of Operation Iraq Freedom/Operation Enduring Freedom (OIF/OEF). There are over 120 AFATDS systems deployed with the SBCT 2, 173rd Bde, 3rd Army, XVIII C/A, and 42 ID, as well as Contractor Logistic Support in support of deployed systems. There are FIT personnel in country to assist in operational readiness of the AFATDS system. These personnel are contractor employees, managed through a time and material contract at PM Intel and Effects. Any degradation of contractor logistic support and/or fielding support will affect the readiness of the AFATDS system, resulting in inadequate fire support.

**ABCS upgrades: Providing ABCS Synchronization and Compatibility.** ABCS (Army Battle Command System) is a System of Systems that provides the critical command and control functions for the war fighter to use in support of his mission for all of the US Army. The Army could not communicate digitally between digitized and non-digitized forces without this support. Some divisions had been modernized with ABCS systems through normal modernization, and there were others who had no digitization at all. The Army was putting together a force of both equipped and non equipped units. We were able to bring all the deploying units onto a common operational software configuration and provide system of system and joint and coalition interoperability. We have fielded over 2,500 BFT (Blue Force Tracking) systems, various quantities of the other 11 ABCS systems, 13C2V's, 3LDOC's, and A2C2S which is the CDR's TOC in the Sky, and 13 Bradley BCV to provide on the move communications capability. "This is the success story of the war." In addition, we provided a DISA Collaboration Suite to for secure voice, whiteboard, chat, FTP, and VTC capabilities and have since moved on

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to developing a windows based Tactical Business Enterprise System for web based unit reporting. This activity continues today as we provide synchronization to all OIF deployments and have merged it with the Army Transformation Plan to include Modularity, JNTC, and BFT.

**Team C4ISR Special Projects Office.**

- **SPO In Theater Support.** SPO manages and assigns technical representatives for every BFA to every deploying Division and separate BDE. Our tech reps are still in the AOR with their units. We manage the tech reps from a PEO FWD location in Doha that reports back to us here at Ft Monmouth. To date we have provided technical support to over 57 combat Brigades, 9 Divisions and 3 Corps in support of OIF/OEF. We currently have 254 personnel in theater supporting the Warfighter.
- **Joint Initiatives/GWOT.** Team C4ISR has coordinated, engineered, and provided direct engineering liaison to Joint Organizations including: Joint Forces Command, the Air Force Command & Control, Intelligence Surveillance Reconnaissance Center at Langley AFB, Army Training and Doctrine Command (TRADOC) at Ft Monroe & Ft Eustis, Supreme Allied Commander - NATO Europe, Fleet Forces Command (previously CINCLANTFLEET). These relationships and participation in experimentation and prototyping has facilitated technical advancement and improved interoperability that transfers directly to the war on terrorism. Recent activities include: Improved interoperability of collaborative systems that allow units to share information across theater, integration of Net Centric web-capabilities into coalition and interagency networks (Coalition Warrior Interoperability Demonstration '05), improved Joint Targeting using Service Orient Architecture approach (Joint Rapid Architecture Environment), and JFCOM's Joint Fires Initiative. This involvement between Joint organizations and the CECOM community speeds development of needed capability and insures timely procurement and delivery to the warfighter and first-responder alike. Only through this close involvement between the warfighter on the ground and the requirements development teams and the Army C4ISR Acquisition team can the cost savings, customer support, and rapid acquisition be realized.

**Blue Force Tracking (BFT) Network Operations Cell.** Over 1,800 BFT Platforms were installed and fielded to support OIE/OEF. Ft Monmouth SPO building 2707 is the network operations Cell for the OCONUS based BFT network. This Cell monitors the health and welfare of the network as well as managing the individual BFT platforms which includes software upgrades, troubleshooting of communications. There is no other facility like this in the world that provides this capability...one that would require duplication, certification, and a formal burn in period for transition.

**Satellite Range Extension for deployed Units/Joint Network Nodes.** Team C4ISR managed the design of several range extension projects, such as a satellite networking capability that allows the 3rd Brigade 2nd ID Stryker Brigade to operate with continuous

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digital connectivity using commercial technology. One such effort provided CJTF-76-needed digital and voice service to isolated elements located throughout Afghanistan, while another project was for the 1st ID while that unit was deployed in Iraq. All of these range extension projects were initiated and met within 120 days of request. This specialized knowledge is helping the SPO with the Managed Range Extension Capability Assessment for Units of Action—a special study team that worked with TRADOC and DA to recommend an appropriate communications architecture to reorganize the Army into separate and self-sufficient Units of Action to support modularity. Critical to this task has been the engineering management support provided to our program manager for tactical radio communications systems in the development, testing and initial fielding effort of Joint Network Nodes to the 3rd ID, the first Army unit to be reorganized using the Unit of Action concept.

**Life Cycle Sustainment.** Team C4ISR provides support throughout the life cycle of equipment.

- **National Inventory Control Point and the National Maintenance Point .** Fort Monmouth is responsible for acquiring, stocking, inventory management and repair of nearly half of the Army's National Stock Numbered parts and systems. The total spares acquisition and hardware repair program for the current Fiscal Year 05 is \$2.3B. *In total, in direct support of OEF/OIF since the start of the operations, they have handled nearly 600,000 requisitions from field units, both Army and other Services, and provided over \$1.6B worth of parts across the entire spectrum of C4ISR systems.* They conduct Anticipatory Logistics, which means they work with units identified for deployments to help determine their status of systems and parts on-hand and what they will need while deployed, in order to better and more quickly satisfy their needs once deployed. Team C4ISR routinely does Readiness Analysis of C4ISR system's operational status with all field units across the Army. The sustainment support provided by the Team C4ISR is literally worldwide and from "factory to foxhole". *The scope of equipment touches essentially every weapon system platform in the Army.*
- **Reset Program.** It receives from returning units, systems that have been subjected to the severe conditions of deployment and combat environment, performs depot level maintenance and returns fully combat ready systems to those units ready for redeployments. This is typically done within 120 days. *Thus far for FY03 - 05, they have Reset over 70 different types of weapon systems, with over 5,100 incidents of system maintenance, involving about 180 Battalion level units across the Army.* This effort involves daily contact by the DA Civilian workforce with those field units, both electronically, and via on-site inspection and maintenance teams. The C4ISR systems Reset range from radios to satellite terminals, airborne sensors/countermeasure sets to Command and Control Vehicles, Radars to Generator Sets.
- **Electronic Sustainment Support Centers.** The Team C4ISR has deployed these centers with DA Civilian Managers to provide forward, in-theater maintenance in direct support of deployed forces. *There are currently 9 different sites in the theater, and they have handled nearly 71,000 repair work orders.* Equipment

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supported includes not only Army and other Service Standard systems, but a wide variety of commercial automation, communication and electromechanical equipment brought to the OEF/OIF theater by deploying forces. In addition, they have forward stocked certain critical system's spare parts in theater, both Army and DLA, in order to be more responsive to unit demands for parts.

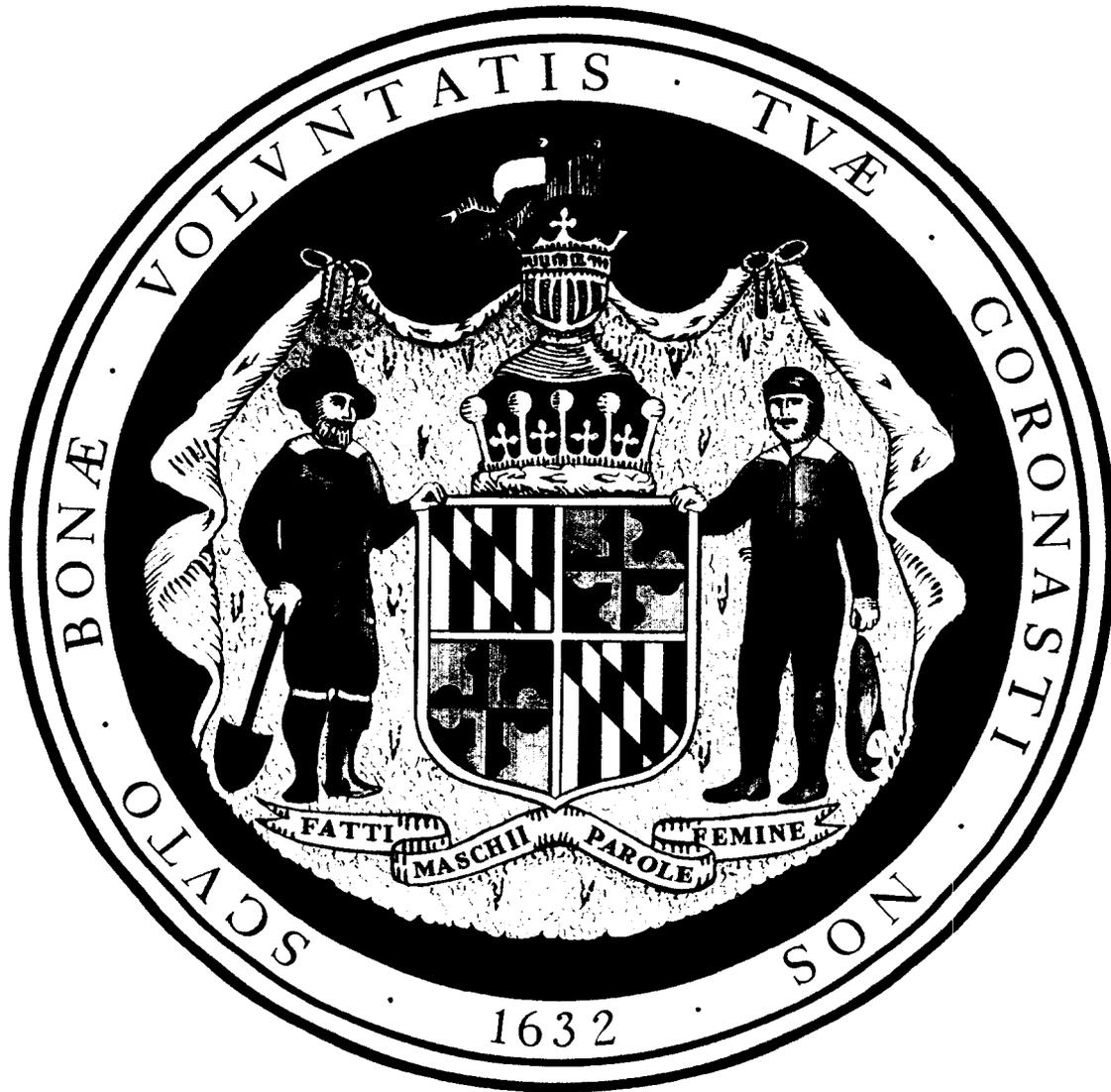
- **Logistics Assistance Support.** There have been over 400 Logistics Assistance Representative (LAR) deployment events involving over 200 DA Civilian LARs, with an average of 55 in the OEF/OIF theater at any time, providing direct hardware technical assistance on-site with units. Some LARs have deployed up to 5 times to the OEF/OIF theater. In addition, there have been 161 Field Software Engineer (FSE) deployments, with an average of 45 in the OEF/OIF theater at any time, providing direct software support on-site with units.
- **Aircraft Countermeasure Filters.** The AN/ALQ-144 Countermeasures Set protects Blackhawk, Apache and Kiowa Helicopters from hostile Infrared (IR) homing missiles by jamming the threat IR Missile System. Deployment of the helicopters to the severe desert environment resulted in dust and sand getting into the mechanical/optical sections of the transmitter and causing greatly premature failures of the system, grounding the helicopters until the system could be repaired. Team C4ISR rapidly developed, tested, and fielded over 2600 Air Filter Kits, greatly improving nearly 75 times the reliability of the AN/ALQ-144, and reducing the maintenance burden and downtime for the aircraft.

**Information Assurance:** Team C4ISR Information Assurance staff continually supports Information and Communications Security systems and operations. Their continuous attention has revealed some security vulnerabilities and they have applied corrective actions directly to field operations in Iraq and Afghanistan that resulted in preventing security compromises and loss of mission and life. Evaluation of IA Security Tools/Security Hardware used by Tactical Army - Problems encountered over a one year period average at approximately 75 problems/solutions resolved, as appropriate with vendor or NSA. Examples are In-Line Encryptors TACLANE, KG-250, GOTS Firewall Cloud shield, Secure GSM Phones, Tactical PKI, Secure PDA, Secure Wireless LAN, Secure Universal Purge Tool. Details are sensitive.

**Software Release Summary.** In support of over 200 operationally deployed C4ISR systems, we provide new software versions (i.e. capabilities) critical to the Warfighter as these releases provide necessary enhancements, improvements and corrections required for these systems. Over the last twelve months the Team C4ISR Software engineering deployed 49 software releases, eleven (11) of which were emergency releases, in support of Operation Iraqi Freedom/Operation Enduring Freedom. More than 1,200 Warfighter requirements were fulfilled with the releases of these versions. These software upgrades included critical enhancements and fixes in areas such as: force protection; navigational accuracy of aircraft; intelligence analysis capabilities to be used to combat terrorism; early strike warning capabilities for friendly troops under indirect fire and; faster and more secure satellite communications.

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- G. LETTER FROM REPRESENTATIVE C.A. DUTCH RUPPERSBERGER**



**Maryland Stands Ready**



STATE OF NEW JERSEY  
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RICHARD J. CODEY  
ACTING GOVERNOR

**To:** BRAC Commission Staff  
**From:** Acting Governor Richard J. Codey  
**Subject:** Poll of the Fort Monmouth Workforce  
**Date:** July 27, 2005

**OVERVIEW**

Brookdale Community College and the State of New Jersey commissioned Harris Interactive® to survey civilian and contracted employees at Fort Monmouth to find out whether the percentage of Fort Monmouth employees likely to move to Aberdeen, Maryland was greater or lesser than the "move rates" experienced in previous rounds of Base Realignment and Closure (BRAC).

**KEY FACTS**

- According to Michael J. Marshall, author of "Private Sector Downsizing: Implications for DOD" (published in the Spring 2000 edition of The Acquisition Review Quarterly), the percentage of all civilian employees who moved as a result of the 1995 BRAC was 25%.
- A more specific review of BRAC moves involving Fort Monmouth shows that the likely move rate to Aberdeen may be even lower.
  - In 1993, only 40 of 300 employees (13%) move from Fort Monmouth to Adelphi, Maryland.
  - In 1995, only 29 of 180 employees (16%) moved from Vint Hill, Virginia to Fort Monmouth.

**SURVEY METHODOLOGY**

Harris Interactive conducted the telephone survey on behalf of Brookdale Community College and the State of New Jersey between June 24 and 28, 2005 among employees (aged 18+) at Fort Monmouth, of whom 169 are civilians and 71 are contractors. Names and numbers of those polled were obtained primarily through employee representatives. Data were not weighted and are therefore only representative of those employees surveyed. Sampling error is plus or minus 6 percentage points.

**FINDINGS**

- *Only 15% of the employees surveyed at Fort Monmouth say that they are planning to relocate to Aberdeen.* A full 70% are planning to stay in New Jersey, with only 13% undecided. The remaining 2% are neither moving to Maryland nor staying in New Jersey.
- Family commitments (45%) is the top reason cited for why civilian and contract employees surveyed do not want to move to Aberdeen. Preferring New Jersey (15%), having roots in the community (13%), and having access to better job opportunities (12%) are other reasons often cited for not moving to Maryland.

**CONCLUSION**

If Fort Monmouth is closed, only a small percentage of the workforce that was surveyed (as low as 15%) is likely to move to Aberdeen, MD. This conclusion is also supported by historical data from previous BRAC rounds. Even if half of the undecided employees who were surveyed decide to move to Aberdeen, the survey results suggest that the move rate would only increase to 22%, which is still below the overall BRAC move rate of 25% and far below the Department of Defense's assumption that 75% of Fort Monmouth employees would move to Aberdeen.

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July 27, 2005

The Honorable Anthony J. Principi, Chairman  
Base Realignment and Closure Commission  
2521 South Clark Street, Suite 600  
Arlington, Virginia 22202

Dear Chairman Principi and Members of the Commission:

I am Major General (Retired) John C. Doesburg. I retired effective 1 January 2005. My last assignment was as the Commanding General, U.S. Army Research, Development and Engineering Command (RDECOM) and for five years I also served as the Installation Commander, Aberdeen Proving Ground. I understand there has been extensive discussion about the closure of Ft. Monmouth, New Jersey, and the movement of most of the organizations there to Aberdeen Proving Ground. I would like to take this opportunity to outline the inception of RDECOM, underscore why the move of the Communications and Electronic Command (CECOM), the Communications and Electronics Research, Development, and Engineering Center (CERDEC), Night Vision Laboratory, and the associated Program Executive Officers (PEOs) and Acquisition Center make sense.

The original concept of RDECOM was to break down the "stovepipes" (technology/functionally restricted or unilateral organizations) that existed among the Army Research, Development, and Engineering Centers (RDECs), develop a system-of-systems approach to research and development, fuel collaboration among the best scientists and engineers regardless of where they were assigned, and to provide technology to warfighters as quickly as possible by leveraging the other concepts listed. Unfortunately, under that original concept I was directed to not move organizations or people regardless of potential synergies or savings. This was primarily driven by the contentious nature of changing the command and control of the RDECs.

Even in the early stages it was apparent that some level of consolidation was needed to meet the original concept of breaking stovepipes and improving collaboration within the entire RDT&E community. As time went on, I developed several options on how consolidation could be accomplished, focusing on technology synergies and savings in infrastructure and personnel costs.

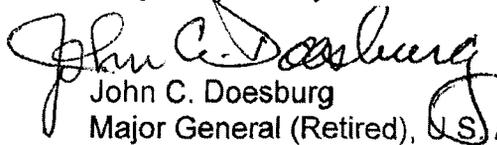
One of my major options called for the CERDEC to move from Ft. Monmouth to Aberdeen Proving Ground (APG) because of the strong relationship of CERDEC to the Army Research Laboratory (ARL), located at both APG and Adelphi, MD. Specifically, ARL is a national and world leader in sensor, electronics and computational science. These technologies by and large transition directly to CERDEC. I also felt there was a strong relationship between CERDEC and several other organizations located at APG – the Edgewood Chemical and Biological Center (ECBC), the Developmental Test Command (DTC) and the Aberdeen Test Center (ATC). Key parameters for me – many of ECBC's chemical and biological sensors require CERDEC developmental skills to translate data into actionable information; plus APG (DTC and ATC) had a large testing and range complex, extensive security for CERDEC's classified programs and was a major location for evaluating the Future Combat System, in which CERDEC has a critical support role.

After the BRAC announcement it was clear someone had a bigger vision than I did. By moving the other components of the Life Cycle Management Command (formerly CECOM, the PEOs and Acquisition Center) to APG they had really thought through the complexities of transitioning technology, gaining intellectual power through co-location, and the need for a single integrated center for research and development across multiple domains. By moving most of the assets of Ft. Monmouth to APG they have created an intellectual nexus that can solve today's and tomorrow's challenges across a wide spectrum.

As the former Installation Commander I can state that Aberdeen Proving Ground has sufficient land space for this move. The surrounding communities have sufficient land for housing and commercial development to support the influx. The universities within the region have undergraduate and graduate programs in disciplines that support the skills needed (more importantly several are world class).

Bottom Line – this is the right move. If it was within my power, I would have made this move two years ago. Our Army, the other Services and our young warfighters are better served by this move.

Very Respectfully,

  
John C. Doesburg  
Major General (Retired), U.S. Army

**DAVID R. CRAIG**  
HARFORD COUNTY EXECUTIVE

**JOHN J. O'NEILL, JR.**  
DIRECTOR OF ADMINISTRATION



**J. THOMAS SADOWSKI**  
DIRECTOR  
OFFICE OF ECONOMIC DEVELOPMENT

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**HARFORD COUNTY GOVERNMENT**

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July 27, 2005

The Honorable Anthony J. Principi  
Chairman  
Base Realignment and Closure Commission  
2521 South Clark Street  
Suite 600  
Arlington, Virginia 22202

Dear Chairman Principi:

The citizens of Harford County and the great State of Maryland appreciated the opportunity to present our testimony to you on July 8, 2005 at the Regional Hearing held in Baltimore at Goucher College. I believe Team Maryland successfully articulated our collective readiness and ability to accept the operations recommended for relocation to Aberdeen Proving Ground (APG).

The concern that "brain drain" will result from the move of the C4ISR mission to APG is one matter we feel particularly confident in addressing. The data we presented reflected the quality of Maryland's workforce. It documented the vast market from which APG draws its skilled labor and the opportunity for employees throughout the Baltimore Region, as well as from outside the State of Maryland, to commute to Aberdeen. We presented information attesting to the deep pool of talent nurtured and supplied by our Maryland and Delaware-based universities. Our testimony highlighted our regional transportation infrastructure and how it is being enhanced. We cited Department of Defense accepted reports ranking our quality of life the best among major military communities. And finally, we listed numerous companies that comprise a well established, regional contractor community that supports both current C4ISR activities and APG-based operations.

Perhaps the one area requiring further discussion is our utilization of "the Pax River" or "NAVAIR" model. This refers to the manner in which our neighbors in Southern Maryland responded when tasked with aiding in the consolidation of sixteen separate geographic locations into a single, integrated air warfare research and development, test, evaluation and acquisition center at the Patuxent River Naval Base during the 1995 BRAC. Overall, relocation rates of 80% from Crystal City, Virginia; 41% from Trenton, New Jersey; and 46% from Warminster, Pennsylvania were achieved. This was due to Southern Maryland's proactive planning efforts and responsiveness to the impacted employees. The State of Maryland, Harford and Cecil Counties began replication of the Pax/NAVAIR model seven years ago with the creation of the Army Alliance, and since, have taken the following strategic steps in preparation for the current BRAC round:

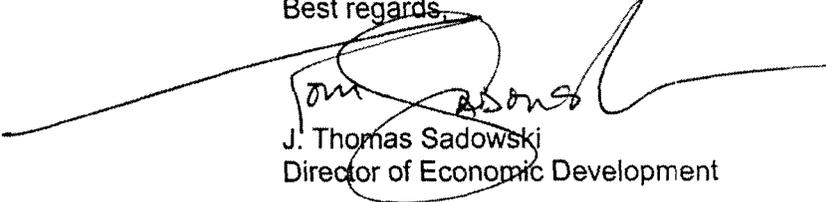
- Launched Marylandready.com providing community information and various relocation related services (over 150,000 hits thus far – vast majority from Ft. Monmouth).
- Briefed more than 70 incoming commanders and operation leaders.
- Volunteered and in process of scheduling on-site community orientations at bases and locations impacted in Virginia, Texas and New Jersey.
- Responding to spousal re-employment inquiries and planning regional job fair events.
- Established local real estate community contacts to provide professional relocation assistance.
- Coordinated immediate Federal, State and local cooperation required to service growth at APG and facilitate employee retention, from the commitment of more than \$170 million in State and County infrastructure funding to the \$1.2 million in U.S. Department of Labor funds for employee recruitment and training assistance.
- Initiated development of a 2005 to 2025 Community/APG Transportation Master Plan to determine and pursue Federal, State and County capital funding requests.
- Arranged for the establishment of a “war room” at the Higher Education and Applied Technology (HEAT) Center in Aberdeen to facilitate coordination, planning and implementation of final BRAC recommendations.

A summary of the Pax/NAVAIR experience is attached for your consideration. Upon review, you will find the steps we have taken are consistent with those taken in Southern Maryland. We are therefore confident in our readiness to support the Department of Defense (DoD) recommendations and help retain the highest percentage of employees possible.

So, as the data and demographics we have presented show, as the evidence of our past experience in Maryland reflects, and as our collective efforts to date demonstrate, we are ready. We are committed to this effort and anticipate similar, if not better, results this BRAC round. Simply put, Team Maryland has done this before and there will be no “brain drain” experienced with the implementation of the current DoD recommendations. Instead, the necessary steps are being taken to facilitate the desired result - greater military productivity, efficiency and “brain enhancement.”

Thank you once again for your consideration.

Best regards,



J. Thomas Sadowski  
Director of Economic Development

*Attachment*



## **Maryland Stands Ready - APG** **The NAVAIR Model**

NAVAIR's Model is a full spectrum acquisition model for the 21<sup>st</sup> century. The result is a **Center of Excellence** which brings synergy among Science and Technology, Research and Development, Test and Evaluation, procurement and acquisition, logistics and maintenance.

The NAVAIR Model consolidated and streamlined functions from 16 separate geographic locations to a single, integrated air warfare research, development, test, evaluation and acquisition center

NAVAIR Model leads the nation in streamlining, consolidating and downsizing:

- 47% reduction in personnel (FY89 – FY 99)
- Downsized nearly 27,000 people
- Closed 3 of 6 Naval Aviation Depots
- Closed 4 Of 9 Naval Air Warfare Product Development Center

Today the Patuxent River Complex is a National Asset and is recognized as national model for streamlining in the U. S. Government

- Integrates best business practices of our nation's private sector corporations
- Creates a national asset with a workforce of nearly 18,000 personnel; approximately 14,000 acres of land
- 1 million cubic miles of airspace, and over \$2.6 billion infrastructure in place

### **Result:**

#### **Military Value: Impacts current and future mission capabilities:**

- Synergy from cradle to grave
- Consolidates organizations – ready access, networking among collocated professionals and stream-lined organizational structure.
- Technology Gains – spiral development, latest technology standards
- Provided test range/air space integration with other acquisition activities
- NAS recognized as a Center of Excellence

### **Workforce**

Personnel moved from various locations. The % of personnel who transitioned is listed below. Note: Numbers are greater than polls showed.

- 80% from Crystal City – Naval Air Systems Command
- 41% from Trenton, NJ – Naval Air Propulsion Center (NAPC)
- 46% from Warminster, Pennsylvania – Naval Air Development Center (NADC)

### **Outreach: Partnership Between Installation and Community (The "Team")**

The Team visited installations on numerous occasions to educate and promote the new location to ease worker family and transition stress. The HRO of the installation, local and state agencies hosted events to provide spouse employment resources and opportunities.

The Community collectively prepared (local and state economic development, Tri County Council, Realtors, School Board, federal resources) to address quality of life, including:

- Housing affordability
- Schools and needed expansion
- Grants

### **And it didn't stop there! Partnerships...**

After consolidation at Patuxent River was announced, the Southern Maryland Navy Alliance's (SMNA) focus was to secure support for the funding and constructions, through state and local resources, of schools, roads, higher education and other infrastructure necessary to support a complex high technology organization and its workforce.

Eventually an infrastructure committee was developed and recommendations were made to the Governor, which resulted in a \$250 million infrastructure improvement program. Overall, \$350 million from state and county resources were invested in support of the Navy mission. The state government team at the Maryland Department of Business and Economic Development provided strong support through out the consolidation and the years following.





**ARMY ALLIANCE, INC.**

HIGHER EDUCATION AND APPLIED TECHNOLOGY (HEAT) CENTER ★ 1201 TECHNOLOGY DRIVE ★ ABERDEEN, MD 21001

410.638.2511 ★ FAX 410.638.2514

July 21, 2005

**ALLIANCE SPONSORS**

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- Access TCA, Inc.
- Accor Economy Lodging
- APG Federal Credit Union
- Applied Research Associates
- ATK Tactical Systems Company, LLC
- Beechtel National, Inc.
- Booz Allen Hamilton
- Boyle Buick
- Decision Systems Technologies, Inc.
- Four Points Sheraton
- Geo-Centers, Inc.
- Harford Bank
- Harford County Association of Realtors
- Hess Hotel Group
- OptMetrics, Inc.
- ORSA Corporation
- SciTech Services
- Smitns Detection - Edgewood
- SURVICE Engineering
- University of Maryland

The Honorable Anthony J. Principi, Chairman  
 Base Realignment and Closure Commission  
 2521 South Clark Street, Suite 600  
 Arlington, Virginia 22202

Dear Chairman Principi:

As we continue to analyze the New Jersey portion of the testimony at the July 8 BRAC hearing in Baltimore, MD, there are more and more questions without answers. In particular, the "megabase" proposal raised at the hearing is not well defined, it is incomplete, and the whole argument was conclusionary without facts and logic to support it.

The New Jersey proposal would create, by decree, a so-called megabase. Neither operations, real estate, nor facilities on Fort Dix, Lakehurst Naval Air Engineering Station, or McGuire Air Force Base would change except for a sign. This was presented as increasing jointness, but there was not even a suggestion that there would be any change in operations at any of the separate locations. At Fort Dix, for example, the mission is to prepare soldiers for deployment, primarily to combat areas. And it is receiving greater mobilization responsibility under the DoD's realignment recommendation. It is hard to imagine Fort Dix taking on a test role that would permit outside organizations from Ft Monmouth to tap people and interrupt that crucial training. One can imagine that an administrative consolidation of headquarters functions might save a few overhead spaces but the proposal should be given at least the same level of analysis as was given to the basic DoD recommendations. The proposal offered no improved facilities, no common operating philosophy, and the individual bases are just as distinct.

It was recommended that the Air Force have command of the megabase, but that alone does not create jointness. Jointness is enhanced when similar requirements and functions make use of the same procedures and facilities. For example, Aberdeen Proving Ground tests both Navy and USMC waterborne equipment, and both Army and Air Force airdrop equipment, using the same facilities and test support personnel. The Dix-Lakehurst-McGuire (DLM) Megabase would still have different people doing

different things. And, despite the claim that DLM would create >60,000 acres in close proximity, close is not always useful. When you have to stop a vehicle, or shut off a radio signal, and repackage a system to cross a civilian street or move from one property to another, "close" is still very far apart. Put simply, the DLM Megabase proposal is a smoke screen, with no increase in military value.

The New Jersey testimony spoke at length about errors in the DoD calculations of costs to move and the costs to replace personnel. The basis for much of that discussion was work done by Bliss & Associates, a firm of 4 people (as listed on their web site) local to Fort Monmouth in nearby Wayne, NJ. The relevant question is not whether another model can produce different numbers, but whether the output can be correlated with data developed in great detail over a two year period by DoD. As required by law, the Government Accountability Office has published its analysis of the DoD selection process and recommendations.<sup>1</sup> It had criticism, but also confirmation. These GAO statements are relevant:

- "DOD's process relied on certified data."<sup>2</sup> During the BRAC process, data were certified by senior officials at DOD installations. Each official certified that the information was accurate and complete to the best of his or her knowledge and belief.
- "...the DOD Inspector General and the military service audit agencies...generally found the data sufficiently reliable to support BRAC decision making."<sup>3</sup>
- "...the COBRA model was designed to provide consistency across the military services...[and DOD]...has improved upon its design to provide better estimating capability. In our past and current reviews of the COBRA model, we found it to be a generally reasonable estimator for comparing potential costs and savings among various BRAC options."<sup>4</sup>

The emphasis of the New Jersey testimony on a single point estimate, generated by a proprietary process which cannot be reliably compared to other figures, does not offer a sound basis for decision making.

One of DoD's goals is to concentrate life cycle program management into four centers. The New Jersey proposal nullifies that approach and creates a single

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<sup>1</sup> Analysis of DOD's 2005 Selection Process and Recommendations for Base Closures and Realignment, Government Accountability Office, GAO-05-785. July 2005.

<sup>2</sup> Page 5.

<sup>3</sup> Page 6.

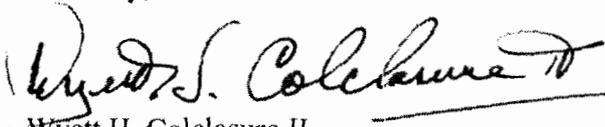
<sup>4</sup> Page 32.

outlier organization. There is no substantive logic offered for doing so, other than a new set of independent and unverified numbers.

Finally, the New Jersey testimony alluding to construction costs for new facilities at Aberdeen Proving Ground gave no consideration to the use of space which will be made available by the departure of the Ordnance Center and Schools – 2,171,031 square feet of facilities – and failed to acknowledge that DoD has already considered and factored in essential construction of new facilities.

We respectfully ask that you take these facts into consideration during your deliberations.

Sincerely,

  
Wyatt H. Colclasure II  
President

# United States Senate

WASHINGTON, DC 20510-2002

July 25, 2005

The Honorable Anthony Principi  
Chairman  
Base Realignment and Closure Commission  
2521 S. Clark St.  
Suite 600  
Arlington, VA 22202

Dear Chairman Principi:

We are writing to thank you for the opportunity to testify before the BRAC Commission at the July 9<sup>th</sup> regional hearing at Goucher College. We appreciate the opportunity to support our communities in their response to the Department of Defense (DOD) recommendations. In following up on the issues discussed during the hearing, we would also like to correct certain assertions that were made pertaining to the DOD recommendation to consolidate C4ISR functions to Aberdeen Proving Ground (APG).

- **Moving C4ISR functions during wartime will not hinder our ability to provide these capabilities to the war fighter.**

The assertion that closing Fort Monmouth will have a negative impact on military personnel in combat today is without merit. Opponents of this recommendation suggest that it will hinder the fielding of the Warlock Improvised Explosive Device (IED) jamming systems. In fact, these systems were developed by the Army Research Laboratory (ARL) Survivability and Lethality Analysis Directorate (SLAD), which is headquartered at APG, with components at White Sands, NM and Fort Monmouth, NJ. Fort Monmouth's role in this process is largely acquisition management, not engineering. The Warlock systems were developed by a team of ARL SLAD soldiers and Physical Science Lab engineers from New Mexico State University. The Army has also contracted with several private sector firms for further research and development, and the production of the Warlock systems and their replacements. Air Force and Navy researchers play a large role in research and acquisition of IED jamming technologies and systems as well. In other words, work on the IED jammers will continue as usual regardless of BRAC.

More importantly, as has been pointed out in the DOD recommendations, consolidating C4ISR RDA and T&E functions at APG would provide a beginning to end capability in developing and fielding C4ISR equipment – allowing 21<sup>st</sup> Century technologies to reach our servicemen and women in the most efficient and effective

manner and saving lives on the battlefield. As was explained in detail during the July 8<sup>th</sup> hearing, this capability cannot be achieved at Fort Monmouth.

DOD began deliberations and formulated all of its BRAC recommendations during a time of war. Therefore, DOD was able to fully assess any impact its recommendations might have on current operations. Given the nature of today's open-ended conflicts around the world, the DOD determined that the primary goal of this BRAC round would be to transform our military infrastructure to effectively confront 21<sup>st</sup> Century threats. The DOD recommendations would be implemented over a six year period in order to maintain continuity of operations while achieving this critical transformation.

- **Moving C4ISR functions from Fort Monmouth to Aberdeen Proving Ground will not create a "brain drain."**

Surveys measuring the number of workers who plan to move as a result of BRAC-related relocations are rarely accurate. In fact, concerns about the willingness of workers to move with their jobs were raised when the Naval Air Systems Command was relocated from Crystal City to Patuxent River Naval Air Station as a part of the 1993 BRAC. At the time, surveys sponsored by opponents of the DOD recommendation indicated that only 20 percent of the workers would move. However, in practice, 80 percent followed their jobs to Patuxent River. Cooperation among stakeholders at the federal, state, and local level made this relocation a success and we intend to replicate this effort at APG.

It was also asserted that the relocation of the Electronic Technology Device Laboratory (now the Sensors and Electronic Devices Directorate) from Fort Monmouth to ARL Adelphi during the 1991 BRAC is an example of what can be expected in the Fort Monmouth closure and relocation to APG. This is not accurate. Because only a small portion of Fort Monmouth was realigned during the 1991 BRAC, many of the workers who might have otherwise relocated to Adelphi simply went to work for CECOM, driving the relocation numbers down. By closing Fort Monmouth entirely, many more workers are likely to follow their jobs to Aberdeen, which is also 60 miles closer to Fort Monmouth than Adelphi.

Although we believe a large portion of the Fort Monmouth workforce will ultimately move to APG should the BRAC Commission approve the DOD recommendation, it is important to note that nearly 35 percent of the Fort Monmouth workforce is over 50 years old. These individuals are likely to retire in the near future regardless of the outcome of the recommendation to close Fort Monmouth. As was thoroughly supported by independent data in testimony at the regional hearing, Maryland has a highly proficient workforce and an educational framework that will more than adequately fill any need for new and highly qualified workers. In addition, many of the private sector contractors that provide C4ISR research and development services for the Army, including Battelle, Booz Allen, Bechtel, Northrup Grumman, Lockheed

Martin, SAIC, TRW, and Smiths Detection, all have a significant presence in Maryland and a large science and technology workforce already in place.

- **The Department of Defense cost data on relocating C4ISR to Aberdeen Proving Ground is sound.**

DOD has indicated that the cost of moving C4ISR to APG would be \$822 million. However, as a result of synergies created by the co-location of C4ISR work currently located at several sites, cost savings would be generated in the amount of \$143 million per year by consolidating C4ISR functions at APG. This allows for a payback period of six years and would generate overall savings every year after this period. In fact, the GAO recently reported in testimony before the BRAC Commission that the closure of Fort Monmouth is among the top 10 percent of the DOD's recommendations in terms of cost savings. These recommendations account for 79 percent of total BRAC savings projected by DOD.

Arguments that the move would cost more than what DOD has indicated are based on the "brain drain" argument that has been addressed above and assumptions of military construction costs that are not grounded in fact. In fact, if there is a discrepancy in cost, it would be to the benefit of APG. BRAC recommendations relocating the Ordnance School from APG to Fort Lee will free up additional space to house C4ISR administrative offices and military construction costs for additional infrastructure have been built into the DOD recommendations. In addition, the Enhanced Use Lease projects underway and expected at APG will drive operating costs lower, generating additional savings. Conversely, COBRA runs of a limited consolidation at Fort Monmouth indicate that the payback period for that scenario would exceed 100 years.

- **The creation of a regional "mega-base" to include Fort Dix, McGuire Air Force Base, NAVAIR Lakehurst, and Fort Monmouth will not create C4ISR synergies.**

Creating a regional "mega-base" to include Fort Dix, McGuire Air Force Base, NAVAIR Lakehurst, and Fort Monmouth is a simplistic approach that would do little or nothing to improve the efficiency of developing and fielding C4ISR technologies. Gathering an Army Reserve mobilization base, a fuel tanker air force base, and a carrier support naval base and coupling those facilities with C4ISR functions at Fort Monmouth would be a forced and awkward marriage when compared to the synergistic relationships envisioned under the DOD recommendation to consolidate at APG. Indeed, the "mega-base" concept is simply a rearranging of administrative management that puts all these facilities under one Garrison command, but has no effect on operational capabilities.

Actual consolidation at APG would co-locate the acquisition and contracting functions of Fort Monmouth with the research, testing, and evaluation functions of Army Research Laboratories and the headquarters for the Army Research, Development and Engineering Command located at APG.

Furthermore, the DOD recommendations recognize APG as a "full spectrum Research, Development, Test and Evaluation installation" and propose consolidating two additional Army Research Laboratory Directorates and the headquarters of the Army Test and Evaluation Command to APG, joining the organizations it manages and that are already located at APG. These are the complexities of the DOD recommendations that the Secretary of Defense referred to in his May 16<sup>th</sup> testimony before the BRAC Commission. Given its overall military value rating, size, and low operating costs APG is the only feasible location to produce these relationships.

Thank you for the opportunity to follow up with you regarding these important matters. We look forward to working with you as the Commission continues to examine the DOD recommendations.

With best regards,



Paul S. Sarbanes  
United States Senator



Barbara A. Mikulski  
United States Senator



C.A. Dutch Ruppensberger  
Member of Congress

JUL-14-2005 11:38

P.02



STATE OF MARYLAND  
OFFICE OF THE GOVERNOR

ROBERT L. EHRLICH, JR.  
GOVERNOR

July 14, 2005

The Honorable Anthony J. Principi, Chairman  
Base Realignment and Closure Commission  
2521 South Clark Street, Suite 600  
Arlington, Virginia 22202

Dear *Mr. Chairman*

I write to thank you and your fellow commissioners for the interest and attention given to our Maryland presentation on Friday, July 8<sup>th</sup> at Goucher College. We appreciate the complexities associated with these issues, and the emotions that accompany changes that impact so many communities. In the end, I know you will do what you believe is best for the nation.

In the short time remaining before you conclude your deliberations, Maryland will concisely amplify to the Commission a number of issues that have risen above others. Foremost among these is the proposed move of Army Communications-Electronics Command (CECOM) functions to the Aberdeen Proving Ground. In coordination with our Congressional delegation and local officials, my staff will provide a detailed response to points made by those advocating a reversal of the BRAC recommendation.

We believe we can clearly demonstrate that the Army and Department of Defense were absolutely correct in their assessment that multi-discipline functional consolidations at Aberdeen best serve our nation, and through time will allow for the most efficient and effective fielding of systems essential to our war fighters. We will continue to address workforce issues, specifically what we believe to be an overstated concern about who might move and how those not moving will be replaced, as well as addressing what will be required regardless of location - finding bright, dedicated replacements within a workforce that will undergo significant changes as members reach retirement age.

We will also demonstrate that along with the use of vacated existing facilities, the Army's very aggressive use of public-private sector partnering tools mitigates a fair amount of the expense of new facilities associated with the move. Regardless, as you stated Friday, there are costs and opportunities at several levels, and how we can best provide for our men and women in uniform should remain paramount in our approach.

I wish you Godspeed as you move forward in the BRAC process. Please do not hesitate to contact me if I may be of any further assistance.

Best personal regards.

Very truly yours,

Robert L. Ehrlich, Jr.  
Governor



**Robert L. Ehrlich, Jr.**  
*Governor*

**Michael S. Steele**  
*Lt. Governor*

**Aris Melissaratos**  
*Secretary*

**Christopher C. Foster**  
*Deputy Secretary*

July 26, 2005

The Honorable Anthony J. Principi  
Chairman  
Base Realignment and Closure Commission (BRAC)  
2521 South Clark Street, Suite 600  
Arlington, VA 22202

Dear Mr. Chairman:

The Department of Business and Economic Development (DBED) would like to provide you with updated information which Governor Ehrlich promised in his letter to you dated July 14, 2005. The following is a detailed response to points made by those advocating a reversal of the BRAC recommendations regarding the proposed move of Army Communications-Electronic Command (CECOM) functions to the Aberdeen Proving Ground. This reflects actions accomplished in coordination with our Congressional delegation and local officials.

Maryland stands ready – we have experience. Maryland has experience teaming with the military in establishing the NAVAIR Model – a Center of Excellence - which has received recognition throughout the DoD. The NAVAIR Model consolidated and streamlined functions from 16 separate geographic locations into a single, integrated air warfare research, development, test, evaluation, and acquisition center.

Congressman Hoyer has been an active participant with the Navy in its consolidation at Patuxent River and sent you his thoughts separately. Maryland has shown it can accommodate moves that require quick recapitalization of a technical workforce. Large numbers of personnel moved to St. Mary's County, Maryland from various locations. The percentages of personnel who transitioned significantly exceeded predictions:

- 80% from Crystal City – Naval Air Systems Command;
- 41% from Trenton, New Jersey – Naval Air Propulsion Center (NAPC); and
- 46% from Warminster, Pennsylvania – Naval Air Development Center (NADC).

The 2005 BRAC military value score assigned to Patuxent River is a reflection of the success of the previous relocation of multiple organizations to Maryland.

The Honorable Anthony J. Principi  
July 26, 2005  
Page 2

Maryland stands ready – we have the workforce. We looked into workforce issues using the Milliken Study as our data point. Here are some of the high points: Maryland is first among states in the nation with the highest percentage of professional and technical workers, and is second among the states in its number of people holding advanced degrees. Maryland has a large labor market for recruiting which can help mitigate these risks. Additionally, the move would create an increased synergy and enhanced program efficiency resulting in the need for fewer individuals to complete the mission.

Finally, it has been suggested that Ft. Monmouth has suffered from a lack of newly trained, highly motivated individuals bringing the latest in skills and technology to complex projects. This movement of CECOM to APG would result in a refreshed, creative, “brain enhanced” workforce. Congressman Ruppberger has sent a letter to the Commission with additional information regarding the opportunities for hiring highly qualified personnel to support the C4ISR mission.

Maryland stands ready – we have the technological know-how. I would like to clarify some of the presentation heard at the July 8, 2005 hearing. Here is what has been reported to me by one of Northrop Grumman’s chief scientists supporting the Aberdeen Proving Grounds (APG): The Army Research Laboratory’s Survivability/Lethality Analysis Directorate (SLAD) at Aberdeen took the initiative to endorse and fund project suggestions by their field test and design group at the White Sands Missile Range. The SLAD designed and developed, in collaboration with New Mexico State University, the countermeasure system that is being fielded, and this design will continue to be fielded. It is one of four concepts that are now managed by the Program Executive Office IEW&S at Ft. Monmouth in a program called Warlock. The alternative designs appear to have been created by contractors, not by the Ft. Monmouth staff, and its contractors who provide the SLAD field support. Every part of the logistics support and program management is, by nature, highly portable. We have been unable to discern a single aspect of this program that would be harmed if the functions and staffing were transferred elsewhere, at any time. The SLAD team was one of ten Army groups honored for their inventions for the year 2004, because their creation works. The Army’s active-duty divisions and the Training and Doctrine Command chose the ten winning programs for their impact on Army capabilities. Nominations for the program were submitted from across the Army laboratory community.

All of the above is all a matter of public record. As you know, contractors from different companies located in a variety of states support programs important to the C4ISR mission area. Program managers are also located at various locations. Fort Monmouth’s role is largely acquisition management and not engineering. This is the case in a number of capabilities which Ft. Monmouth cited. Many of the Army’s leading scientists and engineers located at APG have worked with these and other C4ISR programs. On our visit with the BRAC staff we will present a matrix which identifies the different systems/capabilities along with current locations of the RDTA&E. Rest assured continuity of this and other systems are assured under the DoD recommendation.

The Honorable Anthony J. Principi  
July 26, 2005  
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Maryland stands ready - but we have questions. As we continue to analyze the New Jersey portion of the testimony at the July 8, 2005 BRAC hearing in Baltimore, Maryland, there are more and more questions without answers. In particular, the "megabase" proposal raised at the hearing is not well defined, it is incomplete, and the whole argument drew a conclusion without facts and logic to support it. The Army Alliance in Aberdeen is preparing a more detailed paper on this subject and will be sending it to you this week for your consideration. They will also speak to the issue of additional cost avoidance which makes the movement of CECOM even more affordable than current cost models.

Maryland stands ready - to serve. You have received numerous letters of expression of support from Senators Sarbanes and Mikulski, Governor Ehrlich, our State legislators and our local leaders. I assure you that Maryland federal, state and local officials, business leaders and the community will welcome the people from Ft. Monmouth. The State has a team at DBED dedicated to providing strong support throughout the consolidation and continues today and into the future.

Maryland is prepared - and proud. We are prepared to use our vast experience, highly trained workforce, and ability to leverage federal, State and local resources in supporting the establishment of the Land C4ISR Center of Excellence at Aberdeen Proving Ground. We are proud to support our military in its defense of our nation.

Thank you for your time and consideration. If you have any questions or need additional information, please do not hesitate to contact me or BGen J.M. "Mike" Hayes, USMC (Ret.), Director, Office of Military and Federal Affairs, DBED, at (410) 767-2988, toll free at 1 (888) 246-6736, or email at [mhayes@choosemaryland.org](mailto:mhayes@choosemaryland.org).

Sincerely,



Aris Melissaratos  
Secretary

cc: BGen J.M. "Mike" Hayes, USMC (Ret.), Director, Office of Military and Federal Affairs, DBED

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Congress of the United States  
House of Representatives  
Washington, DC 20515-2002

July 25, 2005

ASSISTANT DEMOCRATIC WHIP  
PORT SECURITY CAUCUS  
PERMANENT SELECT COMMITTEE  
ON INTELLIGENCE  
SUBCOMMITTEE  
ON FOREIGN BODIES, INTELLIGENCE  
AND DOMESTIC SECURITY  
TELEPHONE TRAILING AND  
SURVEILLANCE  
GOVERNMENT REFORM COMMITTEE  
SUBCOMMITTEE  
ON EXECUTIVE AND  
FINANCIAL RESOURCES  
NATIONAL SECURITY EMERGENCY  
AND INTERSTATE SECURITY

The Honorable Anthony Principi, Chairman  
Base Closure and Realignment Commission  
2521 S. Clark St.  
Suite 600  
Arlington , VA 22202

Dear Chairman Principi:

I am writing today to express support for the Department of Defense's Base Realignment and Closure recommendations, particularly the recommendation to move the C4ISR organizations from Ft. Monmouth, New Jersey to Aberdeen Proving Ground (APG). The intention of BRAC 2005 is to reconfigure the current infrastructure [bases] into one in which operational capacity maximizes both war fighting capability and efficiency. The development of "Centers of Excellence" across the nation will create enhanced programs and synergies that will benefit the war fighter immensely.

In this process, both Maryland and New Jersey appeared before the BRAC Commission to express their position on this matter. During those meetings and since, arguments have been presented which suggest that Department of Defense had errors in their decision making process and calculations. I use this opportunity, and will be following up with a phone call, to outline the concerns raised by the New Jersey delegation and reiterate the Department of Defense's rationale for making this recommendation (the closing of Ft. Monmouth and relocation of C4ISR to APG to establish a Land C4ISR (Center of Excellence.)

Monmouth claim 1- Radical changes to the military should not be made during a time of war.

Response - Such a claim would negate any BRAC action anywhere during this BRAC round and few of the past rounds. The overarching need is for efficiency, adaptability to current and potential threats and modernization demanded by proper utilization of finite defense resources. If there is a supportable promise of achieving continuity of service to the warfighter, then timing is irrelevant.

Monmouth claim 2- Closing Ft. Monmouth would have a negative impact on the war fighter.

Response - The prime example cited was the Warlock IED jamming system. This system was developed by the Army Research Laboratory (ARL), headquarters at APG with components at White Sands as well as Fort Monmouth. Fort Monmouth's role was largely acquisition management not engineering. Continuity of this system is assured under the DOD recommendation.

Monmouth claim 3- A "Brain Drain" would be created by this movement

Response - Early estimates of numbers of employees willing to move, is always greatly inaccurate. Maryland's previous experience with movement of other military installations showed up to 80% of the workforce ultimately relocating to maintain employment. 45% of Ft. Monmouth's workforce is at age 50+ with a significant portion likely to retire in the near future. Maryland has many citizens who have moved from across the nation and choose Maryland for their retirement home. Maryland is first among states in the nation with the highest percentage of professional and technical workers and is second among the states in its number of people holding advanced degrees. Maryland has a larger labor market than New Jersey for recruiting which can help mitigate these risks. Additionally, the move would create an increased synergy and enhanced program efficiency resulting in the need fewer individuals to complete mission. Finally, it has been suggested that Ft. Monmouth has suffered from the lack of newly trained, highly motivated individuals bringing the latest in skills and technology to the project. This movement of C4ISR to APG would result in a refreshed, creative, "brain enhanced: workforce.

Monmouth claim 4- DOD cost data on relocating C4ISR is flawed.

Response - The wild assumption of construction costs suggested by Ft. Monmouth are inconsistent with GAO certified estimates. By locating this capability to APG, DOD will realize over \$143 million in cost savings each year - quickly recapturing any short term costs associated with the moving of C4ISR. The moving costs that Ft. Monmouth suggest do not include the relocation of the Ordnance school and the ability to utilize then vacant space. Additionally, an Enhanced Use Lease Program already established at APG will further provide additional financial benefits to the military.

Monmouth claim 5- Monmouth should be part of a mega-base including Dix, McGuire, Lakehurst and Monmouth.

Response- This configuration would not improve the efficiency of developing and fielding C4ISR technologies. This mega-base would consist of a fuel tanker airforce base, a carrier support naval base and coupling those facilities with C4ISR functions. Absent from this configuration are the synergies intended by this BRAC.

The movement of the C4ISR organizations to Aberdeen makes sense. It supports the original intention of the DOD BRAC recommendations and will enhance greatly the ability of our nation to protect our warfighter and grow DOD technology.

Signed,



C.A. Dutch Ruppensberger  
Member of Congress