United States Congress
Washington, D.C. 20510

August 17, 2005

The Honorable Philip Coyle
General Lloyd Newton, USAF (Ret.)
Brigadier General Sue Ellen Turner, USAF (Ret.)
Base Realignment and Closure Commission
3521 S. Clark Street, Suite 600
Arlington, VA 22202

Dear Commissioner Coyle, General Newton and General Turner:

Thank you for taking the time to meet with Congressman Rush Holt, Congressman Frank Pallone and Congressman Chris Smith on August 10, 2005. During the course of the August 10th meeting, the Congressional Delegation was asked several questions concerning counter-IED development and mission disruption, as well as the additional cost savings resulting from realigning Fort Monmouth as an enclave of the Fort Dix/Lakehurst Naval Air Engineering Station/McGuire AFB (DLM) - Joint Base. Our response is as follows:

IED Program

Commissioner Coyle inquired about Fort Monmouth's recent contract award to Syracuse Research Corporation, and whether it, in any way, negates the disruption to counter-IED development that will result if Fort Monmouth is closed. The answer is "No". Fort Monmouth is the home of Army Counter Remote Controlled Improvised Explosive Devices (RCIED) development, acquisition and sustainment.

Hundreds of Fort Monmouth's scientists and engineers are engaged in the development and testing of new force protection technologies *every day* at facilities located on the installation, including two Threat Exploitation Laboratories, a Signal Analysis Laboratory and a Hardware in the Loop Laboratory. Additionally, Fort Monmouth has one of the largest and most secure Anechoic Chambers in the Army for the internal development and testing of signals intelligence and countermeasure systems.

Additionally, Fort Monmouth engineers provide support to the FBI Terrorist Exploitation Device Analysis Center in identifying new types of threats and determining how best to overcome them, and in Combined Exploitation Cells, located in Iraq and Afghanistan, which immediately identify new or modified threats and rapidly get the word out to the field.

The Fort Monmouth Warlock team initiated a fast track program to get hundreds of jammers into the field quickly by modifying an existing Shortstop fuse jammer and developing the Warlock Green. Fort Monmouth also initiated the development of the Warlock Red, the Warlock Orange and Warlock CMPS. The Warlock Red and Green systems are the most advanced and effective tactical convoy protection jammers that are in the field today and have an unparalleled record for saving Warfighters' lives

The recent competitive contract to Syracuse Research Corporation (SRC) is based on techniques, architecture, antennas and technology developed by Fort Monmouth. Because of the changing nature of the threat, this system will be supported by over $70M of research and development at Fort Monmouth from FY05 through FY09 to enhance its performance against the increasing threat.

Closing Fort Monmouth and losing 75-80% of its expert workforce (including over 2,000 engineers and scientists) will substantially disrupt counter-IED operations by needlessly stripping the Army of its core engineering team, removing the most capable people from implementing, overseeing and effectuating the research and development

and manufacturing processes, and interrupting ongoing support to current units.

As has been clearly demonstrated to the Commissioners who visited the installation, Fort Monmouth plays a critical role in *all* major C4ISR programs within the Army, and in sustaining over half of the Army's national stock numbered items currently in the field.

Unequivocally, the role Fort Monmouth plays cannot be filled without a highly trained and experienced technical and logistical workforce. Certainly, the DoD's National Defense University recognized, in its June 29, 2005 letter to the BRAC Commission, that attempting to re-locate this outstanding workforce to a place with *no C4ISR infrastructure whatsoever*, such as Aberdeen Proving Ground, particularly in the midst of the Global War on Terrorism, would be ill advised. (*A more detailed analysis on the IED issue is enclosed.*)

Disruption to Current and Future Force Programs

Commissioner Coyle inquired as to whether the disruption to C4ISR programs that would occur as a result of the proposed closure of Fort Monmouth would still occur in the event of a drawdown of U.S. troops currently engaged in Iraq and Afghanistan. The answer is "Yes".

The affirmative reply is driven by the Chief of Staff of the Army's plan to modernize the current force while putting the Army on a path to the future force. Army modernization includes the timely battlefield issue of the best equipment for the global war on terrorism. It includes: development; quickly fielding individual high payoff initiatives; replacing battlefield losses; upgrading equipment sets; adjusting unit inventories under the Unit of Action expansion plan to increase combat power; and proliferating Stryker brigade combat team proven technologies. The overriding modernization requirement is balanced between enduring and critical current capabilities and promising new capabilities. This "seamless merging" of current and future force capabilities is dominated by Fort Monmouth C4ISR products, all of which would be significantly impacted.

The products described below are funded at over $10B all of which would be significantly impacted.

- Warfighter Information Network-Tactical - a single integrating communications network, with network capacity, speed and quality of service with high reliability.
- Joint Network Node - provides dynamic and mobile satellite connectivity while on the move with connectivity to commercial and military satellite systems.
- TPQ-36 Excalibur - highly reliable and mobile artillery and mortar locating system to enable precision engagement.
- Shadow UAV Sensors - Moving Target Indications (MTI); Synthetic Aperture Radar (SAR); Electro-Optics, and Signals Intelligence sensors for small platforms.
- Extended Range Multi Mission UAV Sensors - MTI/SAR, Electro-Optics and Signals Intelligence Sensors for long endurance, long range standoff platforms.
- Future Combat System (FCS) C4ISR technology.
- Aerial Common Sensor (ACS) - rapid deployment of airborne intelligence systems from long range, long loiter jet aircraft with sophisticated multi ISR packages.
- Distributed Common Ground Systems - joint architecture to consolidate multiple systems and enable processing of multi intelligence information from any location.
- Unattended Ground Sensors (UGS) - remotely delivered sensors that detect and identify targets at long ranges and pass information for improved situational awareness.
- Other Systems - Communications Relay, Joint Tactical Radio System, Combat ID, Joint Battle Command, Mounted Battle Command, Movement Tracking, Command Post of the Future, Joint Blue Force Tracking, etc.

Loss of people at the 75% to 80% level anticipated, would bring most of this critical work to a halt, cost billions of dollars, severely impact the current/future force bridging and, most importantly, delay critical capability to the warfighter. The impact would be severe degradation in our ability to: seamlessly communicate on the move; make timely decisions; know the enemy's intent and preempt its actions; provide protection to the Force; and provide overwhelming fire power. Bottom line, this impact will degrade the network centric Joint Warfighter concepts delaying Joint Transformation, regardless of whether the U.S. remains engaged in Afghanistan and Iraq.

Cost Savings from Realigning Fort Monmouth as an Enclave of the Joint Base

General Newton asked for details concerning possible cost savings generated from designating Fort Monmouth as an enclave of the Joint Base.

At the outset, it must be made clear that designating Fort Monmouth as an enclave of the Joint Base presents many major advantages that are not cost related, primarily:

- It avoids the massive disruption to the Army C4ISR mission and loss of critically needed intellectual capital that the DoD recommendation entails.
- It builds upon the already existing C4ISR presence on the DLM - Joint Base, in particular the Airborne Electronic Warfare/UAV activity and the "On the Move" C4ISR Test facility.
- It presents the opportunity for increased Joint C4ISR Programs.

From a strictly cost perspective, the alternative presents a great many advantages as well. As the Community's cost analysis demonstrates, *any* alternative which results in the rejection of the DoD recommendation involving Fort Monmouth will avoid the massive investment costs associated with the DoD recommendation ($1.8B), which will require 44 years to recover, and 91 years to recover using the GAO methodology. (It should be noted that the 6 years estimated in the DoD recommendation for recovery of the costs to implement the closure and re-location of Fort Monmouth were based on a vastly understated investment cost, and a grossly inflated cost associated with the operation of Fort Monmouth.) Further, the "Joint Base Realignment" alternative proposed by the Community requires virtually no up front investment, and will begin yielding substantial savings immediately. These annual savings are described below:

Annual Savings	Action	Methodology	Amount
Efficiencies gained from Attachment to DLM Joint Base	Joint Base Commander would consolidate operations where applicable and provide installation services from a provider of choice.	A conservative 15 % reduction in base operations support personnel was utilized.	**$ 13.8M (14.3%)**
Vacate and Demolish Buildings	Consolidation of activities to reduce square feet and inherent base support service requirements, including savings due to elimination of OMA support costs for the Officer's Club. 43 buildings eventually to be demolished.	Elimination of the need to support these buildings consisting of 614,000 square feet	**$ 3.3M (3.4%)**
Efficiencies in Utility Costs	Conversion of heating and cooling requirements for 12 buildings from central boiler plant to geothermal.	Contractor investment already made.	**$ 1.7M (1.76%)**
Reduction of Security Checkpoints	Consolidation of security activities at Fort Monmouth East Gate and rearrangement of Charles Wood area security checkpoint.	This reduces the total security checkpoints from 6 to 4.	**$ .5M (.52%)**
Shrinking of Acreage	Of the total of approximately 1,100 acres at Fort Monmouth, 367 acres will be given up reducing acreage support costs.	This would reduce the foot print of Fort Monmouth by 33%	**$ .1M (.1%)**
Total Annual Saving			**$ 19.5 M (20.3%)**

The above savings are considered conservative estimates and are currently being run in COBRA to detail this portion of the Community recommendation. It is noted that Fort Monmouth has provided to the Commission Staff Public/Private Venture, Enhanced Use Leasing, and Residential Communities Initiative plans that would utilize the vacated space to further reduce costs, provide revenue for operations, provide enhanced technical facilities, and more efficiently utilize available DOD space.

We hope this response clarifies the information that was previously presented to the Commission.

With best regards,

Jon S. Corzine
US Senator

Frank R. Lautenberg
US Senator

Rush Holt
Member of Congress

Frank Pallone
Member of Congress

James Saxton
Member of Congress

Christopher Smith
Member of Congress

Fort Monmouth is the focal point for Counter Remote Controlled Improvised Explosive Device (RCIED) development, acquisition and sustainment for DoD

The information provided by the Maryland Congressional Delegation regarding Fort Monmouth's leadership role in countering RCIEDs is completely in error and ignores the significant contributions that Fort Monmouth engineers, scientists, and military personnel play in negating this significant threat. It has also been alleged that the Army Research Laboratory (ARL) Survivability and Lethality Analysis Directorate (SLAD) at White Sands, NM was the sole developer of IED Countermeasure devices and that Fort Monmouth does nothing more than award contracts, such as the recent award of a $550M contract to Syracuse Research Corporation to manufacture the next generation Counter Remote Control Improvised Explosive Device Electronic Warfare (CREW) System. **The purpose of this paper is to "set the record straight" and confirm that Fort Monmouth is the focal point for DOD in IED Countermeasures.**

The Counter IED program at Fort Monmouth is a joint team effort that is focused on the continually evolving IED threat in the areas of ***detection, neutralization and intelligence.*** Hundreds of engineers, scientists and military personnel are engaged full time in the detection and location of IED threats. The Program Manager-CREW at Fort Monmouth is the Army's Program Manager for *all* of the Army's jammers, including those developed at Fort Monmouth, SLAD, Indian Head, the MMBJ and SSVJ. Fort Monmouth engineers and support contractors play a crucial role in the Warlock program in production, maintenance, field support, training, threat exploitation, and detection and intelligence operations against the IED threat.

Fort Monmouth's scientists and engineers are engaged in the development and testing of new force protection technologies *every day* at facilities that include:

- **Threat Exploitation Laboratories:** Two threat exploitation laboratories, one operating at the Secret and the other at the Special Security level, evaluate all potential commercial "trigger" systems (keyless entry fobs; garage door openers; car alarms; pagers; handheld radios; cordless phones; cell phones; commercial transmitters, etc.) to determine the potential for modifications by insurgents that could exceed the capabilities of fielded jammers. In addition, engineers and intelligence analysts trained and sanctioned by the FBI's Terrorist Explosive Device Analysis Center (TEDAC), working at Fort Monmouth, Quantico and the Counter Exploitation Cells in Iraq and Afghanistan, analyze actual recovered threat systems to determine how they work and how well our jammers will work against them.
- **Signal Analysis Laboratory:** In this laboratory, the types of signals utilized to trigger the devices are analyzed along with various ways to override them. Each device is evaluated to determine how simple alterations could be implemented by insurgents to change the signal characteristics and defeat our countermeasures. From this analysis and the Threat Exploitation Laboratories, countermeasure "breadboard" systems are fabricated by Fort Monmouth engineers to be utilized in the next phase of evaluation.
- **Hardware in the Loop Laboratory:** Actual threat systems, or those deemed highly likely to pose an actual threat, are evaluated against breadboard jamming systems and fielded jammers to analyze their effectiveness and improve countermeasure techniques against more hardened systems. Fort Monmouth also evaluates hundreds of commercial jammer products offered by industry and publishes reports on their capabilities for U.S. and Coalition forces. ***The Hardware in the Loop Laboratory***

and the Anechoic Chamber (below) are unique DoD facilities that have been designated by the Joint Improvised Explosive Devices Task Force (JIEDTF) as the DoD facilities for the performance of testing for all commercial and military countermeasures to IEDs.

- **Anechoic Chamber Testing:** Fort Monmouth has one of the largest (over 2100 square feet) and most secure Anechoic Chambers in the Army for the internal development and testing of signals intelligence and countermeasure systems. In this environment, the potential jammer candidates are installed on vehicles and radiated against the threat systems. Because the jammers will be installed on many platforms, each with its own electronic environment, their effectiveness must be measured in as close to a real environment as possible. Numerous installation problems are discovered during this process that contribute significantly to accelerating the development process and eventual field success.
- **Field Testing:** Yuma Providing Ground (YPG) is used as the field site to test all new jammers prior to fielding, and Fort Monmouth engineers provide the technical support during this phase. These ranges were developed and specially configured and instrumented to assess IED threats and test and improve the best candidate jammers installed on multiple platforms in a field environment similar to those in which they will operate. Fort Monmouth engineers provide the parameters to be tested and assist in the evaluation of the data and the determination of the operational utility of candidate systems.

Only after a quick reaction process utilizing the facilities described above is completed, and the technical foundation that determines the capability of the system to be acquired is established, does Fort Monmouth prepare a solicitation for the further development and production of larger quantities of countermeasure systems. It prepares the detailed technical specifications, evaluates proposed systems, and selects the winning contractor to go into production.

FBI Terrorist Exploitation Device Analysis Center (TEDAC): Fort Monmouth engineers assist the FBI in identifying new types of threats and determining how best to overcome them, perform laboratory and field testing, and support the requisite reprogramming of those jammers. This is one of the most important and time sensitive programs in DoD. ***The exploitation reports and new jamming techniques are posted daily to DoD secure networks for all services, agencies, and specially cleared industry to immediately apply in order to implement life saving changes to the jammers.***

Combined Exploitation Cells (CEXC): CEXCs are located in Iraq and Afghanistan and immediately identify new or modified threats. Fort Monmouth engineers working in these facilities expedite getting the latest information back to the laboratories so that software and/or hardware modifications can be identified and expeditiously sent back to the field.

SUPPORT IN THE FIELD: Fort Monmouth has a variety of Liaison Officers whose mission is to ensure user satisfaction, identify any problems for resolution, learn new operational procedures that impact jammer effectiveness, and advise on changes to future systems. Their understanding of the multiple fielded jammers and the changing operational mission profiles has proven invaluable to the technical teams developing the jamming systems.

WHAT HAS BEEN FIELDED: Fort Monmouth developed and fielded nearly a thousand Warlock systems before SLAD had a prototype jammer ready for production. The Fort Monmouth Warlock team initiated a fast track program to get hundreds of jammers into the field

quickly by modifying an existing Shortstop fuse jammer and developing the Warlock Green. Fort Monmouth also initiated the development of the Warlock Red, the Warlock Orange and Warlock CMPS. The Warlock Red and Green systems are the most advanced and effective tactical convoy protection jammers that are in the field today and have an unparalleled record for saving Warfighters' lives.

SLAD, at White Sands Missile Range, developed the ICE system that is approximately equal to the Warlock Red in performance, but is many times larger and heavier, has a noisy fan that the troops don't like, does not have a blanking capability to make it compatible with other jammers, and uses more power than a Warlock Red. The ICE, like other jammers, is being produced by contractors. With extensive technical assistance from Fort Monmouth engineers on antennas and jamming techniques developed at Fort Monmouth, test support and other critical subassemblies, an urgent update to the SLAD ICE jammer is under way in order to extend its useful life; however, the ICE jammer has an inferior architecture that limits its ability to be updated to counter the latest threats.

The June 30, 2005 award of a $550M contract to Syracuse Research Corporation was based upon techniques, architecture, antennas and technology developed by Fort Monmouth. Because of the changing nature of the threat, this system will be supported by over $70M of research and development at Fort Monmouth from FY05 through FY09 to enhance its performance against the increasing threat.

The ability to continue to develop and field these systems to meet the constantly evolving IED threat and thereby ensure the safety of our Warfighters, absolutely requires the continued involvement of Fort Monmouth scientists and engineers, as well as private industry. Fort Monmouth engineers are leading the analyses of captured IEDs, determining whether new threats have been identified, and developing solutions/upgrades to fielded systems. Additionally, they continue to assess where the threat is likely to migrate to ensure that research and development programs are adequately focused on staying ahead of the threat.

Closing Fort Monmouth and losing 75-80% of its expert workforce (including over 2,000 engineers and scientists) will substantially disrupt counter-IED operations by needlessly stripping the Army of its core engineering team, removing the most capable people from implementing, overseeing and effectuating the research and development and manufacturing processes, and interrupting ongoing support to current units.