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2005 Base Realignment And Closure Walk Through

There are at least four major areas of importance at Fort Monmouth that need to be visited during the six hour BRAC commission walk through.

The satellite facility on Oceanport Ave consists of many fixed and mobile satellite dishes that are part of the critical infrastructure. Moving the satellite facility will require a switchover period with little or no downtime. This will be an engineering feat in itself. The last two fixed satellite dishes were installed in 2003.

The McAfee Center anechoic chamber is one of the largest and best in the world. It can accommodate virtually any Army platform and those of other services. Although similar facilities exist elsewhere in the country none are as large or efficient in terms of electromagnetic and electric field attenuation. McAfee Center opened in the mid 1990s and expanded its platform operating capacity in 2004.

The CECOM SEC lab is one of the largest and most accommodating in the country. It opened in the year 2000. It can accommodate virtually any Army platform and those of other services as well. Armed services from the US and allies perform tests in this lab on monthly basis. This lab is critical to homeland defense as well.

The Link 16 radio navigation system is the most widely used communications and navigation system in the world. It is used by all US services and those of a dozen allies. CECOM SEC operates one of four Link 16 labs in the country. It is dedicated to supporting AWACS and Patriot, THAAD, SHORAD missile battalions around the world, including those of Germany, Netherlands and Japan. It is critical to national and international defense.

The most important resource at CERDEC and CECOM are the people. There are thousands of years of DoD experience invested. A move from New Jersey would certainly mean a loss both to the Army and New Jersey, of a substantial number of valuable experienced people.

The bottom line, the Warfighter.

BRAC Plan B

Since the DoD is looking to consolidate resources and at the same time provide joint service capability, a plan B is needed to offset disruption of service to the armed services as well as to offset disruption to families and careers.

In the case of Fort Monmouth, there is limited space for expansion or consolidation of other service programs at CECOM or CERDEC. What makes more sense to the community as a whole is to relocate CECOM and CERDEC personnel and facilities to the 40,000 acre complex made up of McGuire AFB, Fort Dix, and Lakehurst Naval Station.

At the present time Fort Monmouth operates one of the largest and most important military satellite earth stations in the country. This station needs to be near a major metropolitan area, but on the other hand it needs to be hidden in the woods. Right now it sits on Oceanport Avenue and the Shrewsbury River and it is somewhat vulnerable to physical and electromagnetic attack. A satellite station like this situated in the middle of Dix, McGuire and Lakehurst would be well protected yet still within an hour or so of New York and Philadelphia.

The most compelling reason for keeping CECOM and CERDEC services in New Jersey is families. Disruption of families has no price tag. A move from Fort Monmouth to Dix, McGuire and Lakehurst would not be disruptive at all. At the same time there would be some cost saving by removing DoD functions from Fort Monmouth.

There is ample acreage for development of facilities at Dix, McGuire and Lakehurst, and they provide open and wooded terrain for radio range testing that could never be done at Fort Monmouth. The Army avionics group is already using hangar 5 at Lakehurst for storing and maintaining aircraft as well as for fly by and air to ground tests.

Radio Range and Anechoic Chamber Testing
CERDEC SED

Outdoor Ranges

From time to time there are requirements for over the air testing of military radios in different environments. There are test facilities at various military locations around the US. One such site is operated by the US Navy near Fort Stewart, GA. It is a 300 meter tower with an elevator and control room at the base. The intent of the tower is to provide sufficient radio range within a 71 km radius. Personnel and hardware can ascend to the radio shack at the top via elevator with a few ladder rungs to climb near the summit. With some radios it requires going into the shack at the top each day to load crypto keys. This can be a problem in bad weather. This presents risks to personnel.

There are alternatives to having to climb 300 meters to test military radios. Use of aircraft is prohibitive because of fuel costs and overseas deployments. The most efficient means of testing radio range is to drive SUVs, HUMWVs or Stryker's to the summit of many great locations in the US. A few of these locations are as follows:

Location	Elevation	Omni Range
Mt Mitchell, NJ	~100 m	~41 km
USN test range, GA	~300 m	~71 km
High Point, NJ	~600 m	~101 km
Clingmans Dome, NC	~1600 m	~165 km
Ft. Huachuca, AZ	"	"
Mt Kahadin, Me	"	"
Mona Loa, HI	~ 3000 m	~226 km
Mona Kea, HI	"	"
Haleakala, Maui	"	"

There are radio assets available in all these states with active, reserve and guard units. A radio hub at any of these locations provides over the horizon relay capability and network geographic extension with fewer platforms. An example would be a BSN, NOC-V or Stryker on Haleakala, Maui. Any of these platforms could easily maintain connectivity with other platforms on all the Hawaiian Islands.

Even more important there is little risk to personnel or equipment with careful selection of on or off the road locations. Radios can be operated 24 x 7 in relative comfort and safety and at lost cost.

McAfee Center I2WD

Sometimes radio characteristics need to be tested while radiating, but emissions need to be controlled. In the year 2000 we sat down with Ray Irwin, Bob Doto and Jan Moren and proposed such a facility at Fort Monmouth. At that time the McAfee (I2WD) Center had a 50x50x75 foot anechoic chamber with a small 3 x 7 foot entrance door. If you wanted to test a radio you had to hand carry it in or bring it on a hand cart. There was no way to test a shelter any other platform. We were working on the development and testing of the first Brigade Subscriber Node and it required shipping the BSN to White Sands and Fort Huachuca. This impacted our budget and schedule. We proposed to I2WD that they consider a larger door in order to accommodate platforms such as BSN and NOC-V. In 2004 such a set of doors was completed at a cost of tens of thousands of dollars and McAfee Center can now accommodate nearly every communications platform the US military produces including some aircraft and armored vehicles.

The bottom line is that you do not need to climb 300 meter towers or send your system to Georgia, EPG or WSMR for all tests. Some or all of the tests can be performed at or near Fort Monmouth.

The bottom line, The Warfighter