

**Louisville, KY Detachment
Naval Surface Warfare Center,
Port Hueneme Division**

Executive Summary

The Louisville Detachment of the Naval Surface Warfare Center was included in a BRAC recommendation (see attachment to memo) as one of eight installations contributing functions and personnel to form a new "Integrated Weapons & Armaments Specialty Site for Guns and Ammunition" at Picatinny Arsenal, NJ. The recommendation would realign gun and ammunition Research and Development & Acquisition (RDA) by relocating 296 jobs from the Louisville Detachment.

While the other seven installations may have capabilities appropriately included in this recommendation, only a small portion of the work conducted at Naval Surface Warfare Center PHD, Louisville Detachment is research and development in nature. In fact, the unique and specialized activity in Louisville is nearly entirely focused on Fleet-user support, through manufacturing, shipboard integration, and life-cycle support of naval armaments. Louisville Detachment should not be included in the final recommendation because:

- The considerable majority of the work performed at the Louisville Detachment does not fit within this recommendation's intended mission profile;
- Relocation of Louisville's mission per this recommendation would result in an erosion of the existing public-private partnership, itself a creation of the 1995 BRAC Commission, critical to the success of this vital mission support activity;
- Such relocation would likely result in a higher cost to the Department and the U.S. taxpayer.

Discussion: Louisville Detachment Performs Minimal Research and Development

The recommendation, to create a "more robust center for gun and ammunition Research, Development & Acquisition," has a coherent rationale and, if properly executed, could create a strong support base for warfighters throughout the military. However, the Louisville Detachment's mission focus is on manufacturing, shipboard integration and life-cycle support, with only minor and peripheral involvement in the research and development elements of guns and ammunition. Specifically, the involvement of the Louisville Detachment's staff in research and development is quantified at fewer than ten personnel, while the remaining 200-plus personnel are focused directly on Fleet support and in-service engineering of armaments. Essentially, Louisville Detachment's mission is unique and different that the work targeted by this recommendation, and as such nothing is gained by its inclusion, but much stands to be lost.

Generally, there are three basic operating constructs shipboard: (1) sensors, (2) effectors and (3) command and control. The Louisville Detachment activity works in all three areas, with the gun engineering accounting for a little more than a half of the work force, and with only a fraction of

Less than 10% work is RDT&E 1

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those personnel engaged in research or development activity. These few R&D personnel are located in place to support the larger mission of Louisville Detachment, rather than the larger Navy research and development mission. The remainder of the Louisville workforce is focused on the shipboard integration of sensor systems designed to operate in the at-sea environment, command and control, high-speed computation and a variety of additional end user support functions – work with no relationship to energetics research conducted at Picatinny Arsenal, or the research and development work conducted at the other named facilities. The research and development facilities identify and evolve new and vital technologies, in contrast to Louisville Detachment's personnel work in direct partnership with the OEMs to integrate these systems shipboard and support them while in service.

Vital to this discussion is the fact that no measurable military benefit would result from relocation of Louisville's engineering core, focused on shipboard Naval armaments, to the Army's energetics research laboratory at Picatinny Arsenal, NJ. In fact, an erosion of the current capabilities would be the likely result. It is important to keep in mind that Naval weapons consist of 10% recoiling gun and 90% automated ammunition-handling systems that are integrated into each ship's unique platform, while Army weapons consist of 90% recoiling gun and 10% ammunition handling systems that are integrated into various mobile platforms by the Army Tank-Automotive Command (TACOM) in Detroit, MI. There is very little overlap between the manufacturing and support of large caliber automatic naval rifles and their unique loading systems, and the similar caliber ground-based system's employed by the Army. Accordingly, no benefit accrues from co-location of the systems support personnel.

In general, the proposed realignment would not make a material contribution to the new center or transformation. Instead, it would disrupt the Louisville Detachment's crucial mission of supporting the naval warfighters.

Discussion: Partnership With OEMs Is Vital

Not only would the proposed realignment of the Louisville Detachment fail to serve the purposes of the recommendation, it also would result in a devastating loss of synergy and shared intellectual capital between the OEMs and the Navy's personnel who work in partnership within the Louisville operations. This public-private partnership was created by an express action of the 1995 BRAC Commission¹, and has proven a highly successful and efficient operation to date. In contrast to the research and development corps located at the other named facilities, Louisville Detachment's personnel are focused on direct and real time support of the warfighter, the sustainment of their armaments and the integration of technologies shipboard. This mission requires the close and constant joint efforts of both the Navy and its industrial base located in Louisville, KY. The military-industrial dynamic that exists at sites such as Louisville is critical element of the military portfolio supporting deployed naval forces.

¹ "The commission found that the gun systems engineering functions at Louisville are consistent with operational requirements, and that co-location of these engineering functions with the maintenance and overhaul functions performed at the facility has contributed substantially to the effectiveness of the facility in serving the Department of the Navy. These integrated engineering, maintenance and overhaul capabilities led the Commission to strongly urge the Department of the Navy to allow privatization of these assets." *Excerpted from the recommendations of the 1995 BRAC Commission Report.*

The BRAC law requires that military value be given primary consideration. In fact, the highest military value for the Louisville Detachment results from the partnership between the Navy's engineering staff and the industrial base. The Army, and apparently the Technical JCSWG, recognized this tenet when it wisely recommended maintaining Watervliet Arsenal and Benet Laboratory as an operating unit geographically separate from Picatinny Arsenal, but co-located with the relevant industrial base. This action demonstrates a clear recognition that higher military value and benefit results when the manufacturers of gun and ammunition systems are co-located with the service's engineers who are charged with the integration, maintenance and support of the same equipment. The organizational construct of Louisville Detachment, integrated within the manufacturing base of the weapon systems it supports, is no different than the structure of the Army's Watervliet Arsenal and Benet Labs (which are recommended to remain in place), but considerably different than the other facilities named in the Department's recommendation.

In short, the mission necessitates a partnership and joint-location of the gun and ammunition industrial base and the Navy support personnel, no differently than the Army's mission requirements at Watervliet. Relocation of the Louisville Detachment would have a direct and negative impact on the effectiveness and efficiency of the in-service support of naval armaments. The recommendation should be rejected in order to continue reaping the operational and financial benefits the cooperative relationship between installation personnel and private contractors.

Discussion: Flawed Cost Savings

As outlined above, military value is optimized through maintaining the ongoing operations of the Louisville Detachment, preserving efficiencies gained through public-private partnership. Further, while one could argue that moving all of Louisville Detachment could arguably achieve some cost savings in the form of reduced overhead, it is likely that this move could actually result in higher costs.

Serious questions remain regarding actual cost savings realized by the relocation of the Louisville Detachment. Such questions are predicated on several factors, most prominently the significantly higher costs of doing business in northern New Jersey over Louisville, Kentucky, as is evident from the below chart listing data cited directly from DoD's own COBRA analysis.

Cost Element	Louisville	Picatinny Arsenal
Enlisted BAH/Month	\$743	\$1,632
Civilian Locality Pay	1.109	1.193
Area Cost Factor	0.96	1.2
Per Diem Rate/Day	\$112	\$157

In fact, the joint element of the work performed at Louisville Detachment and its industrial partners is such a vital ingredient of mission success, the Navy may need to recreate some elements of the activity in Louisville to ensure continued mission success. Such action would only create additional redundancies and a practical higher cost to the Department. Finally, there are always considerable cost issues related to moving a work force, not to mention the risk of losing valuable human capital.

Conclusion

In light of the demonstrable difference in the nature of the work performed by the majority of the staff at the Louisville Detachment and the capabilities sought for the new center described in the recommendation, the Commission is requested to remove Detachment Louisville from the final recommendation. Such action would continue to produce higher military value in support of the warfighter due to the highly efficient partnership existing between the Navy's engineering work force and their industrial base, value that was in fact created by the actions of the 1995 BRAC Commission.

The 2005 BRAC Commission should find that including the Louisville Detachment in this recommendation deviates substantially from the letter and spirit of Selection Criteria One as a result of the detrimental impact on operational readiness.

**Attachment: Relevant Parts of BRAC Recommendation for
Louisville, KY Detachment of Naval Surface Warfare Center**

**Create an Integrated Weapons & Armaments
Specialty Site for Guns and Ammunition**

Recommendation: Realign the Adelphi Laboratory Center, MD, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Realign Naval Surface Warfare Center Division Crane, IN, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Realign the Fallbrook, CA, detachment of Naval Surface Warfare Center Division Crane, IN, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Realign Naval Surface Warfare Center Division Dahlgren, VA, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Realign the Louisville, KY, detachment of Naval Surface Warfare Center Division Port Hueneme, CA, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Realign Naval Air Warfare Center Weapons Division China Lake, CA, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Realign Naval Surface Warfare Center Division Indian Head, MD, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Realign Naval Surface Warfare Center Division Earle, NJ, by relocating weapon and armament packaging Research and Development & Acquisition to Picatinny Arsenal, NJ.

Justification: This recommendation realigns and consolidates those gun and ammunition facilities working in Weapons and Armaments (W&A) Research (R), Development & Acquisition (D&A). This realignment would result in a more robust joint center for gun and ammunition Research, Development & Acquisition at Picatinny Arsenal, NJ. This location is already the greatest concentration of military value in gun and ammunition W&A RD&A.

Picatinny Arsenal is the center-of-mass for DoD's Research, Development & Acquisition of guns and ammunition, with a workload more than an order of magnitude greater than any other DoD facility in this area. It also is home to the DoD's Single Manager for Conventional Ammunition. Movement of all the Services' guns and ammunition work to Picatinny Arsenal will create a joint center of excellence and provide synergy in armament development for the near future and beyond, featuring a Joint Packaging, Handling, Shipping and Transportation (PHS&T) Center, particularly important in this current time of high demand for guns and ammunition by all the services. Technical facilities with lower quantitative military value are relocated to Picatinny Arsenal.

This recommendation includes Research, Development & Acquisition activities in the Army and Navy. It promotes jointness, enables technical synergy, and positions the Department of Defense to exploit center-of-mass scientific, technical, and acquisition expertise within the weapons and armament Research, Development & Acquisition community that currently resides at this DoD specialty location.

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 506 jobs (296 direct jobs and 210 indirect jobs) over the 2006-2011 periods in the Louisville, KY-IN, Metropolitan Statistical Area, which is less than 0.1 percent of economic area employment.