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Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>BRAC</td>
<td>Base Realignment and Closure</td>
</tr>
<tr>
<td>COBRA</td>
<td>Cost of Base Realignment Actions</td>
</tr>
<tr>
<td>ISE</td>
<td>In-Service Engineering</td>
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<tr>
<td>NSWC</td>
<td>Naval Surface Warfare Center</td>
</tr>
</tbody>
</table>
MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (COMPTROLLER)
DEPUTY UNDER SECRETARY OF DEFENSE
(INDUSTRIAL AFFAIRS AND INSTALLATIONS)
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL
MANAGEMENT AND COMPTROLLER)

SUBJECT: Audit of Naval Surface Warfare Center Annapolis Detachment Relocation to
Carderock Division Headquarters, Bethesda, Maryland, and Naval Ships
Systems Engineering Station, Philadelphia, Pennsylvania
(Project No. 6CG-5001.47)

Introduction

We are providing this report for your information and use. Senator
Paul S. Sarbanes requested this audit to evaluate the actual costs to implement the
1995 Commission on Defense Base Closure and Realignment decision
(the 1995 BRAC decision) to close the Naval Surface Warfare Center (NSWC)
Annapolis Detachment, Annapolis, Maryland. Senator Sarbanes' specific concerns
involved the NSWC Carderock Division headquarters, Bethesda, Maryland, budget
request of $108 million for the closure of the NSWC Annapolis Detachment.
Senator Sarbanes also questioned whether the Navy may have used 1991 Defense
base realignment and closure (BRAC) funding to finance the 1995 BRAC decision
to close the NSWC Annapolis Detachment.

Audit Results

The NSWC Carderock Division headquarters originally submitted a $108 million
budget request in June 1995. As a result of the Assistant Secretary of the Navy
(Financial Management and Comptroller) (Navy Comptroller) budget review,
August 1995, only $50.2 million of the $108 million budget request had been
approved for relocation costs for the NSWC Annapolis Detachment. The
FY 1997 President's Budget, February 1996, further reduced the budget request to
$49 million. The NSWC Carderock Division headquarters is planning to submit a
request for an additional $12 million in July 1996, to fund closure costs. The
NSWC Carderock Division headquarters properly estimated personnel relocation
and separation costs and military construction costs and is in the process of revising
equipment relocation costs to reflect current requirements and costs. The Navy
properly implemented the 1991 BRAC decision and funding associated with the
relocation of in-service engineering (ISE) functions.

Audit Objectives

The objective of our audit was to evaluate the actual costs associated with
implementing the 1995 BRAC decision to close the NSWC Annapolis Detachment.
A specific objective was to determine whether the budget request submitted by the
NSWC Carderock Division headquarters, associated with the closure of the
NSWC Annapolis Detachment, is accurate.
Scope and Methodology

Scope of This Audit. We reviewed documentation supporting $38.4 million (78 percent) of the $49 million estimated funded costs and $2.9 million (24 percent) of the proposed $12 million unfunded costs to relocate the NSWC Annapolis Detachment to the NSWC Carderock Division headquarters and the Naval Ships Systems Engineering Station, Philadelphia, Pennsylvania (formerly the NSWC Philadelphia Detachment). We reviewed cost estimates for the following categories: personnel relocation and separation costs; military construction costs; and equipment relocation costs. We also reviewed the planning, work load, and funding associated with the relocation of ISE functions to the Naval Ships Systems Engineering Station as directed in the 1991 BRAC decision. We did not rely on computer-processed data or statistical sampling procedures to conduct the audit.

Audit Period, Standards, and Locations. This program audit was performed during May and June 1996 in accordance with the auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. Enclosure 1 lists the organizations visited or contacted during the audit.

Prior Audits and Other Reviews

Naval Audit Service Report No. 029-96, "Fiscal Years 1996 and 1997 Military Construction Projects Stemming From Decisions of the 1995 Base Closure and Realignment Commission," February 27, 1996, reviewed three of the five military construction projects planned as a result of the closure of NSWC Annapolis Detachment. The report states that project P-181U, "Advanced Materials Facility"; project P-182U, "Magnetic Fields Facility"; and project P-184U, "Advanced Machinery Systems Research and Development Facility," were properly supported. The estimated cost to construct the three facilities was $13.25 million. The report made no recommendations regarding the facilities.

Audit Background

BRAC decisions rendered during FYs 1991, 1993, and 1995 impacted the closure of the NSWC Annapolis Detachment. The NSWC Annapolis Detachment was also impacted by the Navy Research, Development, Test, and Evaluation's Engineering and Fleet Support Activities Consolidation Plan of 1990 and the Defense Management Review Decision 922, December 28, 1991. The consolidation plan and the review decision reduced the authorized personnel strength of the NSWC Annapolis Detachment from 954 to 430.

The 1991 BRAC decision also recommended the following organizational and mission changes for the NSWC Annapolis Detachment:

- Eliminate 85 "infrastructure" or non-direct personnel positions;
- Relocate the Materials Research and Development Division to the NSWC Carderock Division headquarters;

- Relocate the machinery ISE functions of the Annapolis Detachment to the Naval Ships Systems Engineering Station; and

- Retain no more than 56 base operations support positions at the NSWC Annapolis Detachment.

The 1993 BRAC decision originally recommended the final closure of the NSWC Annapolis Detachment. However, the decision was since reversed, and those specific functions outlined in the 1991 BRAC decision were still valid. The 1995 BRAC decision recommended the following closure actions for the NSWC Annapolis Detachment:

- Relocate the machinery ISE functions of the Annapolis Detachment to the Naval Ships Systems Engineering Station (reiteration of the 1991 BRAC decision);

- Relocate the Magnetics Division and the Nike missile site to the NSWC Carderock Division headquarters;

- Relocate the Fire Research Division to the Naval Research Laboratory, Chesapeake Beach, Maryland;

- Relocate the Joint Spectrum Center to another location in the Annapolis, Maryland, area; and

- Realign the water treatment facility and the fuel depot to the Annapolis Naval Station, Annapolis, Maryland.

The 1995 BRAC decision also eliminated the NSWC Annapolis Detachment Deep Ocean Test Facility and the Submarine Fluid Dynamics Facility. The Navy determined that continuing operations at the testing facilities was not cost-effective.

1995 BRAC Budget Estimating

Cost-Estimating Process. To develop cost estimates for the 1995 Commission on Defense Base Closure and Realignment, the Military Departments used the Cost of Base Realignment Actions computer model (COBRA). COBRA is not used for preparing BRAC budgets. Differences exist in how cost data are developed for COBRA and budget submissions. Therefore, COBRA estimates cannot and should not be compared to implementing budgets. In January 1995, the Base Structure Assessment Team used COBRA to estimate that the one-time implementation costs for relocating the NSWC Annapolis Detachment would be $25 million. The COBRA-generated estimate became the initial budget estimate to implement the closure of the NSWC Annapolis Detachment.

Original Budget Submission. The NSWC Carderock Division headquarters prepared a scenario data call for the NSWC Annapolis Detachment closure during March and April 1995. Organizations at the NSWC Annapolis Detachment
estimated the costs of relocating to the NSWC Carderock Division headquarters and the Naval Ships Systems Engineering Station. The scenario data call was the initial "best guess" estimate of costs to relocate the NSWC Annapolis Detachment. A $104 million estimate resulted from the initial scenario data call. The first actual budget request to the Navy Comptroller, submitted during June 1995, was $108 million. The $108 million estimate included the total relocation of all personnel and a total replacement of all equipment to either the NSWC Carderock Division headquarters or the Naval Ships Systems Engineering Station.

Navy Comptroller and Presidential Budget Review. As a result of the Navy Comptroller review and the FY 1997 President's Budget, the Navy Comptroller reduced the NSWC Carderock Division headquarters budget from $108 million to $49 million to close the NSWC Annapolis Detachment. The NSWC Carderock Division headquarters estimated that moving essential systems and completing the closure of the NSWC Annapolis Detachment may require an additional $12 million. The NSWC Carderock Division headquarters plans to submit a budget request for an additional $12 million in July 1996. However, as of June 1996, $49 million is the current and total funding for the closure of the NSWC Annapolis Detachment.

NSWC Annapolis Detachment Closure Cost Categories. The NSWC Carderock Division headquarters identified three categories of closure costs for the NSWC Annapolis Detachment: personnel relocation and separation costs, military construction costs, and equipment relocation costs.

Personnel Costs. The NSWC Carderock Division headquarters used approved cost indexes developed by the Naval Sea Systems Command Personnel Relocation Costing Model, May 1993, to compute the following personnel relocation and separation costs: permanent change of station costs, retirement income tax adjustment costs, extended health benefits, incentive retirement costs, and separation pay costs. The NSWC Carderock Division headquarters used conservative personnel numbers to compute personnel relocation and separation costs.

Military Construction Costs. The NSWC Carderock Division headquarters estimated that five military construction projects would be required to replace two facilities at the NSWC Carderock Division headquarters and three facilities at the Naval Ships Systems Engineering Station. Each military construction project budget estimate coincided with an approved DD Form 1391, "Military Construction Project Data."

Equipment Relocation Costs. The NSWC Carderock Division headquarters budget estimates for equipment relocation did not accurately reflect the operating divisions' estimates for equipment relocation. We reviewed equipment relocation costs for four NSWC Annapolis Detachment operating divisions. Two of the operating divisions' equipment cost estimates were part of the $49 million approved funding, and two divisions' equipment cost estimates were part of the $12 million unfunded requirement. The NSWC Carderock Division headquarters acknowledged that equipment relocation budget estimates needed to be recomputed and reconciled with the operating divisions' estimates. Because the NSWC Carderock Division headquarters has recognized the
discrepancies between its budget estimates and the operating divisions' budget estimates for equipment relocation costs and has begun appropriate action, this report makes no recommendation.

1991 BRAC Budget Estimating

1991 BRAC Decision. In his letter to the Inspector General, DoD, Senator Sarbanes also expressed concerns that the Navy may be using 1991 BRAC funding to implement the 1995 BRAC recommendations. The 1991 BRAC decision directed that the NSWC Annapolis Detachment machinery ISE functions be relocated to the Naval Ships Systems Engineering Station. ISE functions are substantially performed by the NSWC Annapolis Detachment Machinery Research and Development Directorate (Code 80). We determined that appropriate BRAC funding will be used to implement the 1991 BRAC decision to relocate ISE functions to the Naval Ships Systems Engineering Station. A discussion follows.

ISE Work Load. Although we could not readily identify ISE functions and work load in Code 80, we were able to distinguish work loads that were research and development and work loads that were non-research and development. The ISE work load is included in the non-research and development work load.

The following table shows the total funded research and development and non-research and development work load from the pre-BRAC timeframe (FY 1990) to the time of our review (May 1996).

<table>
<thead>
<tr>
<th>Comparison of Research and Development Versus Non-Research and Development Work Load for Fiscal Years 1990 Through 1996</th>
<th>Machinery Research and Development Directorate</th>
</tr>
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<tr>
<td></td>
<td>(in work hours)</td>
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<tr>
<td>Research and Development¹</td>
<td>1990: 58,070</td>
</tr>
<tr>
<td></td>
<td>1991: 64,170</td>
</tr>
<tr>
<td></td>
<td>1992: 72,903</td>
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<tr>
<td></td>
<td>1993: 89,135</td>
</tr>
<tr>
<td></td>
<td>1994: 84,380</td>
</tr>
<tr>
<td></td>
<td>1995: 91,138</td>
</tr>
<tr>
<td></td>
<td>1996: 67,646</td>
</tr>
<tr>
<td>Non-Research and Development²</td>
<td>1990: 11,302</td>
</tr>
<tr>
<td></td>
<td>1991: 11,805</td>
</tr>
<tr>
<td></td>
<td>1992: 13,128</td>
</tr>
<tr>
<td></td>
<td>1993: 11,110</td>
</tr>
<tr>
<td></td>
<td>1994: 8,138</td>
</tr>
<tr>
<td></td>
<td>1995: 6,243</td>
</tr>
<tr>
<td></td>
<td>1996: 4,406</td>
</tr>
<tr>
<td>Net Research and Development³</td>
<td>1990: 46,768</td>
</tr>
<tr>
<td></td>
<td>1991: 52,365</td>
</tr>
<tr>
<td></td>
<td>1992: 59,775</td>
</tr>
<tr>
<td></td>
<td>1993: 78,025</td>
</tr>
<tr>
<td></td>
<td>1994: 76,242</td>
</tr>
<tr>
<td></td>
<td>1995: 84,895</td>
</tr>
<tr>
<td></td>
<td>1996: 63,240</td>
</tr>
<tr>
<td>Percent of Non-Research and Development⁴</td>
<td>1990: 19</td>
</tr>
<tr>
<td></td>
<td>1991: 18</td>
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<tr>
<td></td>
<td>1992: 18</td>
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<td></td>
<td>1993: 12</td>
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<td>1994: 10</td>
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<tr>
<td></td>
<td>1995: 7</td>
</tr>
<tr>
<td></td>
<td>1996: 7</td>
</tr>
</tbody>
</table>

¹Total work load for Code 80 less magnetic signature work in Codes 851 and 854, which are relocating to the NSWC Carderock Division headquarters.
²Total non-research and development work load including ISE work load.
³Net research and development work load less magnetic signature work load.
⁴Non-research and development work load divided by research and development work load.
The funded ISE work load has been diminishing in Code 80 in both total funded hours and as a percentage of the total work load for Code 80. The ISE work load reduction is consistent with the 1991 BRAC decision to relocate ISE functions to the Naval Ships Systems Engineering Station.

**Code 80 Personnel Reductions.** Personnel reductions have taken place in Code 80 since FY 1990. We obtained personnel strength listings for Code 80 for the period October 1991 through May 1996. Since the 1991 BRAC decision, scientific and engineering personnel assigned to Code 80 have decreased by 89 actual personnel. The personnel reductions are consistent with ISE work load reductions that the BRAC decision directed.

**Code 80 Equipment Assessment.** The NSWC Annapolis Detachment prepared an assessment that identified machinery test equipment that will support ISE functions and work load when the ISE work load relocation is complete at the Naval Ships Systems Engineering Station. The assessment listed 23 appropriate NSWC Annapolis Detachment test facilities and their relationship to 224 representative kinds of operational equipment that could be supported. The purpose of the assessment was to identify existing capabilities and equipment at the Naval Ships Systems Engineering Station when compared with existing capabilities and equipment at the NSWC Annapolis Detachment. The assessment will be used to determine which equipment will be required to be relocated to the Naval Ships Systems Engineering Station, based on the condition of the comparable equipment. The purpose and intention of the assessment is consistent with the 1991 BRAC decision.

**1991 BRAC Funding.** The Navy Comptroller has budgeted $8.2 million for the relocation of ISE equipment and personnel from the NSWC Annapolis Detachment to the Naval Ships Systems Engineering Station. ISE equipment relocation is budgeted for $6.2 million, and personnel relocation and separation costs are budgeted for $2 million. The 1991 BRAC funding is totally dedicated to the ISE mission, functions, personnel, and equipment relocation from the NSWC Annapolis Detachment to the Naval Ships Systems Engineering Station.

**Summary**

The concerns expressed by Senator Sarbanes' letter, dated April 15, 1996, to the Inspector General, DoD, are unsubstantiated. The NSWC Carderock Division headquarters estimated the initial budget request of $108 million considering total relocation of mission, functions, and personnel from the NSWC Annapolis Detachment. The current budget request that the NSWC Carderock Division headquarters submitted for the relocation of the NSWC Annapolis Detachment is $49 million with a potential requested increase of $12 million. The 1991 BRAC funding is dedicated to the relocation of ISE functions and personnel that the 1991 BRAC decision prescribed. The NSWC Carderock Division headquarters is adequately managing the relocation of the NSWC Annapolis Detachment as directed in the 1991 and 1995 BRAC decisions.
Management Comments

We provided a draft of this report to you on July 11, 1996. Because the report contains no findings or recommendations, written comments were not required, and none were received. Therefore, we are publishing this memorandum report in final form.

We appreciate the courtesies extended to the audit staff. For additional information on this report, please contact Mr. Wayne K. Million, Audit Program Director, at (703) 604-9312 (DSN 664-9312) or Mr. Nicholas E. Como, Audit Project Manager, at (703) 604-9303 (DSN 664-9303). Enclosure 2 lists the planned distribution for this report. The audit team members are listed inside the back cover.

David K. Steensma
Deputy Assistant Inspector General
for Auditing

Enclosures
Organizations Visited or Contacted

Department of the Navy

Chief of Naval Operations, Naval Base Closure Implementation Branch, Arlington, VA
Naval Surface Warfare Center, Arlington, VA
Carderock Division Headquarters, Bethesda, MD
    Annapolis Detachment, Annapolis, MD
    Naval Ships Systems Engineering Station, Philadelphia, PA
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Enclosure 2
(Page 1 of 2)
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- Senate Subcommittee on Defense, Committee on Appropriations
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- House Subcommittee on National Security, International Affairs, and Criminal Justice, Committee on Government Reform and Oversight
- House Committee on National Security

Honorable Paul S. Sarbanes, U.S. Senate
Audit Team Members

This report was prepared by Contract Management Directorate, Office of the Assistant Inspector General for Auditing, DoD.

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Wayne K. Million
Nicholas E. Como
Sheryl L. Jansen
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