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DEPARTMENT OF THE NAVY

ANALYSES

AND

RECOMMENDATIONS

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BRAC-95 ANALYSES AND RECOMMENDATIONS

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EXECUTIVE SUMMARY

These recommendations build upon the substantial reductions in infrastructure resulting from BRAC-93, which will allow the Department of the Navy (DON) to better afford the capital investments and modernization required in the future. DON's current efforts continue to refine the target of both reducing excess capacity and balancing force and base structure in a way that will foster operational flexibility, synergistic readiness support, and joint opportunities wherever possible.

DON has achieved its BRAC-95 goals. These recommendations affect 62 activities and are expected to save approximately $8.5 billion in constant dollars over the next twenty years, at a one-time cost of $1.2 billion. Examples of the kinds of capabilities these activities represent are the ability to accomplish, per year, almost $1 billion of research and development work, the overhaul of about twelve major combatants, the training of over 800 naval aviators, and the berthing of approximately two carrier air wings.

In reaching the decisions on the attached recommendations, DON has made some hard choices. Our decisions on technical centers and laboratories represent the culmination of the effort started in the 1991 base closure round to ensure that the Department can fully sustain uniquely naval technological efforts without unnecessarily burdening itself with infrastructure. In our recommendations, we have thus eliminated as much redundancy as we safely can. In the case of naval shipyards, we were keenly aware that we had already closed three of the eight naval shipyards which had existed prior to commencement of the base closure processes in 1991. Closing one more shipyard was the inevitable result of the excess capacity in ship maintenance requirements resulting from sharp declines in force levels and the large resultant savings to the DON from the closure of this excess capacity.

Likewise, the closure of Naval Air Station, Meridian, Mississippi, is being reluctantly recommended. Given the reduction in the FY 2001 force structure plan, the training capability represented by this fine facility is simply not needed by the DON. However, it could be extremely useful as a joint training asset. Such a decision would also recognize the national training uses that can be made of the Meridian facilities by the National Guard.

Another difficult choice was the receiving site for the Navy Nuclear Propulsion Training Center (NNPTC). As a result of the closure of Naval Training Center, Orlando, Florida, in BRAC-93, this school was relocated to Submarine Base, New London, Connecticut, because of availability of facilities from the proposed closure of the New London submarine piers. However, the retention of those piers by the 1993 Commission meant that some of these facilities were no longer available and tripled the up-front construction costs at New London. Locating NNPTC with the Nuclear Propulsion

Training Unit at the Naval Weapons Station, Charleston, South Carolina avoids many of the significant costs of building and/or renovating facilities at New London, achieves an enhanced training capability, and provides ready access to the moored training ships now at the weapons station, where the NNPTC students normally receive their follow-on training.

Because of the large number of job losses occurring in California and Guam, the DON decided against recommending several closures that could otherwise have been made. Other than Long Beach Naval Shipyard, no other closure is recommended that would result in a negative direct civilian job loss impact in any economic area in California. To reduce the impact of job losses in Guam, the closure of the Public Works Center, Guam, is not being recommended although operational units that it supports are being removed from Guam. Several of its customers are being retained in the form of the Naval Telecommunications Station, the Naval Magazine (which was consolidated as part of Naval Activities, Guam, in October 1994), and the Naval Hospital, which could justify its retention.

Finally, DON did receive one community request for closure which was given the special consideration required by statute. The Mayor of the Island of Vieques requested the return of naval facilities on Vieques, including the Naval Ammunition Facility and portions of the Atlantic Fleet Weapons Training Facility. These facilities represent the only multi-faceted, live-fire range available in the Atlantic Ocean to the United States and its allies, the closure of which would withdraw an indispensable training resource that could not be duplicated. Consequently, the closure of these activities is not being recommended.

CHAPTER 1

INTRODUCTION

The purpose of the Defense Base Closure and Realignment Act of 1990 (Title XXIX, Part A of the FY 1991 Defense Authorization Act, Public Law 101-510, as amended) (the Base Closure Act) is to provide a fair process that will result in the timely closure and realignment of military installations inside the United States. The statutorily mandated process is designed to ensure that recommendations are based objectively on selection criteria and a six-year force structure plan developed by the Department of Defense (DoD), and that they are reviewed by an independent Defense Base Closure and Realignment Commission (BCRC), the President, and the Congress. The Base Closure Act, at Section 2909(a), provides, with limited exceptions, that it "shall be the exclusive authority for selecting for closure or realignment, or for carrying out any closure or realignment of, a military installation inside the United States."

This report constitutes the response of the Department of the Navy (DON) to the requirements of the Base Closure Act for the 1995 round of base realignment and closure ("BRAC-95"). In addition to the Base Closure Act, the DON base closure and realignment process is governed by implementing policy and guidance issued by the Secretary of Defense (SECDEF) and the Secretary of the Navy (SECNAV). The chapters which follow will describe the DON process, the analyses from which its recommendations were derived, and the considerations which led to particular decisions.

As in BRAC-93, the DON primary goal for BRAC-95 was to reduce its infrastructure to the minimum required to support the naval forces in 2001. Additionally, the DON sought to maintain aggregate military value, support operational commanders' requirements, consolidate and collocate appropriate facilities, maintain critical DON core capabilities, reduce DoD facility and capability redundancy, and support quality of life achievements. However, the challenge for BRAC-95 was complex because future resource levels and requirements are increasingly uncertain. As this is the last round of base closure, it was imperative that the Department make the right decisions to ensure the base structure is sized appropriately to support operational mandates.

Accordingly, our target was that set of recommendations which, building upon the substantial reductions in infrastructure resulting from BRAC-93, will allow us to better afford the capital investments and modernization required in the future. This target set would both reduce excess capacity and balance force and base structure in a way that will foster operational flexibility, synergistic readiness support, and joint opportunities wherever possible. We have attempted to balance our base structure to support our future force structure in the following ways:

For operational bases, our recommendations maintain the maximum flexibility to meet future military commitments while effectively utilizing existing capacity. While our recommendations result in capacity to house fewer ships and aircraft squadrons than will exist in our future force structure, given the forward-deployed nature of naval operations, we have retained sufficient capability to ensure the full support of an operationally ready force. Our analysis also led to the determination that, in lieu of closing an additional air base, it was more productive to use available assets and to avoid investing in new capacity through the construction required to implement BRAC-93 - the equivalent of a major new tactical aviation base.

For industrial and training activities, our recommendations retain sufficient capacity to meet forecast and surge requirements while maintaining a robust capability to support fleet readiness. Within depot activities, we are completing the initiative started in 1991 of removing depot maintenance workload from technical activities and more fully utilizing capacity at depot activities in major fleet concentrations.

For technical centers, we have reduced excess capacity through closure and consolidations that emphasize full spectrum, total life cycle, and total systems responsibilities, while retaining the ability to pursue and sustain essential technological efforts uniquely critical to naval operations. These are very complex activities whose direct link to force structure is often difficult to quantify, and "right-sizing" them has been a task with which we have struggled for some time. Our current recommendations, which affect a large number of these activities and which are the result of the most focused analysis to date, build upon these prior efforts.

For reserve activities, we have recommended only a limited number of closures, despite what appears to be a large amount of excess capacity. Evaluation of reserve activities was particularly challenging because of the need to ensure responsiveness to demographic and recruiting needs. By working closely with representatives from the Navy and Marine Corps Reserve components, we have developed recommendations which will guarantee a more demographically sound Naval and Marine Corps Reserve establishment.

Throughout the evaluation of our activities, we looked for joint opportunities, and the efforts of the DoD Joint Cross-Service Groups (JCSGs) complemented our analytical and deliberative process. Many alternatives forwarded by the JCSGs were anticipated by DON scenarios already being analyzed. We formally considered all of the alternatives received from the JCSGs, affecting 49 activities, and issued Cost of Base Realignment Actions (COBRA) scenario data calls on all but one of the depot maintenance alternatives, all of the significant laboratory and T&E alternatives, all of the military treatment facilities alternatives, and all of the

undergraduate pilot training alternatives. We have included recommendations which subsume twenty of them. The joint cross-service process, then, not only gave us a broader sense of what was possible, it also confirmed the validity of our evaluation.

In sum, the recommendations were viewed critically in light of the need for Total Force operational flexibility and readiness sustainability. The evaluation of installations included sensitivity analyses to determine where the break-points for decision were. Taken in conjunction with the substantial closures and realignments in BRAC-93, these recommendations represent a most significant initiative to align the infrastructure of the DON with the forces it must support. Where excess capacity remains, it is either a reflection of the peculiarities of the configurations of particular types of installations or a considered decision to protect future flexibility.

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CHAPTER 2

FORCE STRUCTURE PLAN

The Base Closure Act requires the DoD recommendations for closure or realignment of military installations to be based upon the force structure plan included as part of the DoD budget justification documents submitted to Congress. This force structure plan covers the six-year period beginning with the fiscal year (FY) for which the budget request is made and is based upon an assessment of probable threats to national security and anticipated levels of funding that will be available for national defense purposes. For the 1995 round of base closure and realignment, the force structure plan covers the period from FY 1996 to FY 2001.

The classified force structure plan is contained in Volume II of the DoD Report. For the Navy and the Marine Corps, the unclassified portion of that plan is as follows:

	FY 1994	FY 1997	FY 1999
Aircraft Carriers	12	11	11
Reserve Carriers	-	1	1
Carrier Air Wings			
Active	11	10	10
Reserve	2	1	1
Battle Force Ships	387	363	344
Marine Corps Divisions	3	3	3
Active			
Reserve	1	1	1
Marine Corps Air Wings	3	3	3
Active			
Reserve	1	1	1
Navy Personnel (in 1000s)	468	408	394
Marine Corps Personnel (in 1000s)	174	174	174

As compared to the FY 1999 Force Structure Plan, which governed BRAC-93, the force structure plan outlined above shows a further reduction of 81 battle force ships, one

aircraft carrier, one active carrier air wing, one reserve carrier air wing, and almost 100,000 Navy personnel. Even if the frigates currently under consideration to remain active are not deactivated, DON still has a net reduction of about 15 percent in the key basing criterion of battle force ships.

CHAPTER 3

DEPARTMENT OF THE NAVY BASE CLOSURE AND REALIGNMENT SELECTION PROCESS

The Secretary of the Navy (SECNAV) has the authority and responsibility for making sound and timely base closure and realignment recommendations to the Secretary of Defense (SECDEF) that are in compliance with the Base Closure Act and Defense guidance. To satisfy this responsibility within the DON, policies and procedures were promulgated, organizations and responsibilities were delineated, internal controls were developed, specific interactions within the DON and with DoD were required, and evaluation was conducted, all leading to the DON BRAC-95 recommendations. The mechanics of this process are discussed below.

Policy Promulgation

The basic policies and procedures for the DON BRAC-95 process were promulgated by SECNAV in SECNAV NOTICE 11000 (SECNAVNOTE), issued December 8, 1993 (Subject: Base Closure and Realignment). This policy document empowered the initiation of the DON BRAC-95 process and allowed development of the process in satisfaction of the Base Closure Act and anticipated DoD guidance. The SECNAVNOTE reflected and built upon the experience gained within the DON during BRAC-93, in view of the validation of that process by both the General Accounting Office (GAO) and the Base Closure and Realignment Commission (BCRC) after extensive review. In general, the SECNAVNOTE described the organizations to be utilized by the DON to arrive at its recommendations, the responsibilities of those organizations, and the general requirements for the conduct of the process.

Organizational Structure

As prescribed in the SECNAVNOTE, the overall DON BRAC-95 process was placed under the oversight and guidance of the Under Secretary of the Navy (Under SECNAV), who relied upon a Base Structure Evaluation Committee (BSEC) for the analyses and deliberations required to satisfy the mandates of the Base Closure Act. SECNAV also established a Base Structure Analysis Team (BSAT) to respond to the guidance and direction of the BSEC in collecting data and performing analysis as necessary.

The BSEC. The BSEC had eight members who were approved by the Under SECNAV. The membership was prescribed by the SECNAVNOTE with a view toward ensuring that the members had broad, relevant experience to apply to the base structure evaluation. The Assistant Secretary of the Navy (Installations and Environment) (ASN(I&E)) was designated as Chair. The Executive Director of the BSAT, a senior

DON career civilian selected by the Under SECNAV, was designated as the Vice Chair of the BSEC. Two Navy Flag officers were recommended by the Chief of Naval Operations (CNO), and two Marine Corps General officers were recommended by the Commandant of the Marine Corps (CMC). There were also two Senior Executive Service career civilians, one of whom was nominated by the Assistant Secretary of the Navy (Research, Development and Acquisition) and one of whom was nominated by the ASN(I&E).

The BSEC was chaired by the Honorable Robert B. Pirie, the Assistant Secretary of the Navy (Installations and Environment). The Vice-Chairman of the BSEC and Executive Director of the BSAT was Charles P. Nemfakos, the Deputy Assistant Secretary of the Navy (Force Basing and Infrastructure Requirements Analysis). The BSEC was initially composed of senior Navy and Marine Corps Flag and General officers who had participated in the BRAC-93 evaluation, which proved to be beneficial from the standpoint of continuity as the initial process was being developed, since the BRAC-95 process was built upon lessons learned from prior rounds of base closure. As these members retired or were promoted, they were replaced with individuals of similar seniority and broad experience. The new members of the BSEC were all nominated and approved prior to commencement of the analyses and evaluation which resulted in the DON recommendations. In addition to the Chair and Vice Chair, the other members of the BSEC were Genie McBurnett, the Deputy Commander, Space and Naval Warfare Systems Command; Vice Admiral Richard Allen, USN, the Commander, Naval Air Force Atlantic; Vice Admiral William A. Earner, USN, the Deputy Chief of Naval Operations (Logistics); Lieutenant General Harold W. Blot, USMC, the Deputy Chief of Staff for Aviation; Lieutenant General James A. Brabham, USMC, the Deputy Chief of Staff for Installations and Logistics; and Elsie Munsell, the Deputy Assistant Secretary of the Navy (Environment and Safety). Among them, the members of the BSEC have more than 240 years of Federal service.

The BSEC was responsible for:

- Conducting analyses and developing recommendations for closure and realignment of DON military installations for approval by SECNAV;

- Ensuring that a fair and complete evaluation of all Navy and Marine Corps installations is conducted in accordance with the Base Closure Act;

- Ensuring that the process utilized, the conduct of the deliberations, and the preparation of the report containing recommendations are timely, thorough, and in compliance with the Base Closure Act, guidance from SECDEF, and the SECNAVNOTE;

- Ensuring that the procedures used can be appropriately reviewed and analyzed by the Comptroller General as provided by the Base Closure Act;

- Ensuring that operational factors of concern to the operational Commanders-in-Chief (CINCs) are considered;

- Providing base closure and realignment recommendations to the Under SECNAV for review not later than 30 December 1994;

- Supporting the presentation of the base closure and realignment recommendations by Under SECNAV;

- Providing direction, guidance, and oversight to the BSAT; and

- Designating DON representation to Interservice Base Closure Groups.

In carrying out these responsibilities, the BSEC was charged with protecting the integrity of the process by ensuring that all data, considerations, and evaluations were treated as sensitive and internal to the process.

The BSAT. The BSAT was organized principally to provide intensive staff support to the BSEC, under its direction, guidance, and oversight. The BSAT was responsible for:

- Responding to the guidance of the BSEC in collecting data and performing analysis as necessary;

- Developing analytical methodologies and techniques for consideration by the BSEC;

- Working with external organizations, to include the SECDEF base closure staff, the BCRC staff, the GAO, and Congressional staff, on day-to-day issues;

- Controlling the development of the data base and associated documentation; and

- Protecting the integrity of the process by ensuring that all data, considerations, and evaluations are treated as sensitive and internal to the process.

The BSAT was composed of military and civilian analysts and supporting staff from throughout the DON and from the Center for Naval Analyses. The individuals assigned to the BSAT represented a broad spectrum of expertise and capability, with greater emphasis on senior officers with operational experience than in past base closure rounds.

Naval Audit Service/Office of General Counsel. In addition to the designation of the BSEC and the BSAT as base closure-unique organizations, the Naval Audit Service and the Office of General Counsel were assigned particular roles within the BRAC-95

process by the SECNAVNOTE. The Naval Audit Service was assigned two independent responsibilities. First, a Senior Executive Service auditor was assigned full-time to and was in residence with the BSAT, to review the activities of the BSEC and the BSAT, to determine whether those activities complied with the approved Internal Control Plan, and to serve as principal point of contact with the Naval Audit Service and the GAO. Second, the Naval Audit Service was tasked to audit the DON BRAC-95 process to validate the accuracy and reliability of data provided by DON activities in response to BSEC requests for data, with particular emphasis on compliance with the certification policy and procedures. During the course of the BRAC-95 process, over 250 auditors reviewed the participation of DON activities in generating required data and the data itself to ensure its accuracy and the integrity of the process. Additionally, the SECNAVNOTE required the General Counsel or his designee to ensure that senior-level legal advice and counsel on all aspects of the closure and realignment process were present and available to the BSEC and the BSAT. This was accomplished, in part, by assigning senior counsel to work full-time with the BSEC and BSAT.

Internal Control Development

Under the Base Closure Act, SECDEF must include with his recommendations a summary of the selection process that resulted in the recommendation for each installation and a justification for each recommendation, as well as certification of the accuracy and completeness of the information upon which the recommendations are based. The initial Defense guidance for BRAC-95 containing policies and procedures required to allow SECDEF to meet his statutory responsibilities was issued in a memorandum to the Secretaries of the Military Departments from the Deputy Secretary of Defense (DEPSECDEF), dated January 7, 1994. Pursuant to the guidance, DoD Components were required to develop detailed record keeping procedures to satisfy the information and justification requirements levied upon SECDEF by the Base Closure Act. Additionally, DoD Components were to develop and implement an Internal Control Plan (ICP) to ensure the accuracy of data collection and analyses.

The BSEC developed an ICP for management of the DON BRAC-95 process and issued it on January 24, 1994. The plan described the management controls to guide and regulate the DON actions to comply with the requirements of the Base Closure Act. The objective of the internal control mechanisms employed by DON was to ensure the accuracy, completeness, and integrity of the information upon which the SECNAV recommendations for closure and realignment would be based. The two principal mechanisms outlined in the ICP and employed in the DON BRAC-95 process are organization and documentation.

The organizational controls were derived from the interlocking responsibilities assigned to the BSEC, the BSAT, and the Naval Audit Service by the SECNAVNOTE, as outlined above. The BSEC and the BSAT each were charged with performing specific

tasks to support the process, and the activities of each group were reviewed by the Naval Audit Service to ensure that the integrity of the process was protected.

The documentation controls were designed to ensure that all significant elements of the DON BRAC-95 process were properly recorded and clearly documented. The controls included requirements for data incorporation into the Base Structure Data Base (BSDB), certification requirements, and record keeping requirements.

Base Structure Data Base. The BSDB is a system of records which contains all relevant data and information pertaining to all DON military installations subject to the Base Closure Act. The BSDB contains a description of the DON's existing domestic shore infrastructure by base categories and subcategories and all of the data and information required to enable the BSEC to conduct analyses, to evaluate installations within each category/subcategory, and to develop recommendations for base closure and realignment on the basis of the final selection criteria and the force structure plan. The BSDB does not contain recommendations or conclusions pertaining to the closure or realignment of specific bases. The SECNAVNOTE and the ICP provide that only information and data certified in accordance with the SECNAVNOTE can be maintained in the BSDB. The ICP further provides that the BSDB is subject to Naval Audit Service source validity checks and data accuracy assessment.

Certification. Under the Base Closure Act, SECNAV is required to certify that information provided to SECDEF and the BCRC concerning the realignment or closure of a military installation "is accurate and complete to the best of his knowledge and belief." For BRAC-95, SECNAV determined that the DON would follow the procedures used for BRAC-93, which required "bottom to top" certification. This policy, promulgated in the SECNAVNOTE, required the officer or employee of the DON who initially generated data in response to a BSEC request for information to execute the statutory certification. Thereafter, certification at each succeeding level of the chain of command was required before such data was provided to the BSEC for inclusion in the BSDB. Absent certification from the point of origin of data through the chain of command, no information provided for use in the BRAC-95 process could become part of the BSDB or be relied upon by the BSEC for analysis or evaluation. As noted earlier, the Naval Audit Service played a key role in ensuring the integrity of this data certification process.

Record Keeping. Another significant documentation control was the requirement to prepare minutes of all formal meetings which were part of the decision making process (e.g., all meetings of the BSEC) in arriving at recommendations for base closure and realignment to be forwarded to SECNAV for his consideration. To accomplish this tasking, two Judge Advocates (military lawyers) were assigned to the BSAT to serve as permanent Recorders for the sessions of the BSEC. Their records of meetings and deliberative reports provide an extensive description of the information

presented to the BSEC and the rationale for the decisions based upon that information, encompassing almost 300 hours of meetings over the course of one year.

Policy Imperatives Development

As part of the development of the BRAC-95 process, the BSAT undertook an effort to obtain from the major DON property owners and/or operators identification of those policy issues and basic principles that either directly, or in a substantial manner indirectly, dictate basing and infrastructure requirements. The endeavor was undertaken in order to understand the context in which answers to requests for data were formulated and to ensure that no analyses or evaluation in the BRAC-95 process would overlook policies fundamental to the support of the operating forces. The BSAT met with 16 major DON owners/operators, including the Fleet CINCs and the Commanders of the Systems Commands (SYSCOM Commanders), and compiled "policy imperatives" based upon those discussions. The BSAT performed no analysis of the 260 imperatives identified but sorted them by category and consolidated them into 37 imperatives in seven categories. The compilation was sent to the owners/operators for review, comment, additions, and deletions and then forwarded to the Under SECNAV, the Assistant Secretaries of the Navy (ASNs), the Vice Chief of Naval Operations (VCNO), and the Assistant Commandant of the Marine Corps (ACMC). The senior DON leadership reviewed these imperatives and concurred that they were appropriate articulation of those elements that are critical for the effective execution of the Department's programs and hence should be reflected in DON's BRAC-95 recommendations. The themes evidenced in those imperatives include retaining the ability to pursue and sustain essential technological effort; ensuring appropriate maintenance support to fleet assets, including robust industrial capability at concentrations of operational forces; structuring flexible response into our operational homeports; and supporting the total force concept in the disposition of forces, training, and related fleet support functions.

DON Interaction

Another significant effort during BRAC-95 was the increased interaction between the BSEC and the leadership of the DON, the Navy, and the Marine Corps, undertaken partially in response to concerns voiced within the DON after BRAC-93 that the process was not as open and visible as it could have been. The SECNAVNOTE specifically required the BSEC to solicit comments from the major owners/operators of Navy and Marine Corps installations on impacts on fleet operations, support, and readiness and to discuss their progress periodically with the SECNAV, the Under SECNAV, and the ASNs, with a particular view to ensuring conformance with Departmental policy. Accordingly, there were a series of deliberative sessions of the BSEC with the Fleet CINCs, the Marine Forces Commanders, the SYSCOM Commanders, the Navy and Marine Corps Manpower Chiefs, and the Navy and Marine Corps Reserve Forces Commanders. Additionally, the BSEC met periodically with the Under SECNAV, the ASNs, the CNO, the CMC, the VCNO, and the ACMC. During these meetings, the

BSEC provided information on all aspects of the DON BRAC-95 process, to include data gathering from DON command activities, the analytical approach being utilized, the capacity and military value analyses resulting from the data provided by the major claimants and fleet commanders, and the development of alternative options for closure and/or realignment of DON installations. These meetings provided, among other things, a forum for the senior DON civilian and military leadership to address potential impacts BSEC recommendations could have on fleet operations, support, and readiness, so that the BSEC could take such concerns into consideration during its decision-making. The issues raised were central to determinations of the needs for operational and basing flexibility and strategic access which are reflected in the DON BRAC-95 recommendations.

DoD Interaction

The relationship between the Military Departments and the Office of the Secretary of Defense for BRAC-95 was more formalized and more robust than in prior rounds of base closure. As part of the initial DoD guidance memo, the DEPSECDEF directed the formation of a BRAC-95 Review Group, a BRAC-95 Steering Group, and six BRAC-95 Joint Cross-Service Groups in order to assist the Secretary of Defense and the Secretaries of the Military Departments in arriving at recommendations. The DON was significantly represented in all of these groups.

BRAC-95 Review Group. The BRAC-95 Review Group was under the purview of the Deputy Secretary of Defense. Review Group members included senior representatives from the Military Departments; the Joint Staff; SECDEF Offices for Comptroller, Program Analysis and Evaluation, Reserve Affairs, General Counsel, and Environmental Security; the Defense Logistics Agency; and the Chair of each Joint Cross-Service Group. Among other things, the BRAC-95 Review Group was responsible for reviewing DoD BRAC-95 procedures, for establishing closure or realignment alternatives and numerical excess capacity reduction targets for consideration by the Military Departments and the Defense Agencies, and for reviewing the work products of the BRAC-95 Joint Cross-Service Groups. The DON representative to the BRAC-95 Review Group was the Under SECNAV, with the Chair of the BSEC as the alternate representative.

BRAC-95 Steering Group. The Chair of the Steering Group was the Assistant Secretary of Defense for Economic Security (ASD (ES)). The membership of the Steering Group included representatives from the Military Departments; the Joint Staff; SECDEF Offices for Comptroller, Program Analysis and Evaluation, Reserve Affairs, General Counsel, and Environmental Security; the Defense Logistics Agency; and the Chairs of the Joint Cross-Service Groups. The BRAC-95 Steering Group was a subordinate organization to the BRAC-95 Review Group and was responsible for assisting the BRAC-95 Review Group in reviewing supplementary BRAC-95 guidance and for overseeing the actions of the Joint Cross-Service Groups. The DON representative to the

BRAC-95 Steering Group was the Chair of the BSEC. The alternate representative was the Vice-Chair of the BSEC/Executive Director of the BSAT.

Joint Cross-Service Groups. Five of the Joint Cross-Service Groups (JCSGs) were responsible for assisting the Military Departments to identify asset sharing opportunities in the following functional areas: Depot Maintenance, Test and Evaluation, Laboratories, Military Treatment Facilities including Graduate Medical Education, and Undergraduate Pilot Training. A sixth JCSG was formed as a Joint Economic Impact Group to establish guidelines for measuring economic impacts. Members of the BSAT were formally assigned by the Under SECNAV as DON representatives to each of the JCSGs in order to ensure that both technical and base closure knowledge and experience were applied to the functional analysis conducted by these groups.

Conduct of the Process

The requirements for the conduct of the DON BRAC-95 process were derived from the Base Closure Act and were set forth in the SECNAVNOTE. The BSEC applied the final selection criteria for selecting bases for closure or realignment provided by SECDEF, considering all DON military installations subject to the Act on an equal footing, and based its recommendations on the final force structure plan provided by SECDEF. The BSEC used the BSDB as the baseline for its evaluation of DON military installations, as a result of which recommendations for closure and realignment were developed. Specifically, the BSEC was tasked in the SECNAVNOTE to:

- Endorse the BSDB as the sole and authoritative DON data base for making base closure and realignment recommendations;

- By base category/subcategory, identify projected future excess capacity that could be eliminated and produce savings, and determine which, if any, are to be eliminated from further study for closure or realignment at any step of the procedures as a result of capacity, costs, or impact on critical mission, reconstitution, Fleet operations, support, or readiness;

- Within each base category/subcategory which the BSEC determines has sufficient excess capacity to merit further review, evaluate all installations and activities subject to the Act under the military value criteria;

- Develop feasible options for closures and realignments, a cost/benefit analysis for each option, and an impact analysis for each option; and

- Develop recommendations for closure and realignment of specific installations and activities to be presented to SECNAV for his review and approval.

A description of the methodology followed in accomplishing these taskings, and the resultant analyses, is contained in Chapter 4 and in the Attachments.

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CHAPTER 4

DESCRIPTION OF ANALYSES

In developing a list of military installations selected for closure or realignment, the Base Closure Act requires the SECDEF to propose the criteria "to be used...in making recommendations for the closure or realignment of military installations inside the United States..." (Section 2903(b)) and to provide to the Congress "a force structure plan for the Armed Forces based on an assessment of the probable threats to the national security..." (Section 2903(a)). Based on this plan and these criteria, the Base Closure Act permits SECDEF to submit, by specified dates in 1991, 1993, and 1995, a list of installations recommended for closure or realignment. While the Base Closure Act does not set forth specific methodologies to be used by the DoD in evaluating installations for closure and realignment, it clearly requires a process that fully accounts for both the force structure plan requirements and the DoD-promulgated selection criteria.

Force Structure Plan

For BRAC-95 purposes, the DON base structure remaining after the recommended closure and realignments must be sufficient to support the force structure projected for FY 2001. The unclassified portion of the plan which relates to the DON is depicted in Chapter 2 above. Although the final force structure plan was not issued by SECDEF until January 11, 1995, an interim force structure plan was issued in January 1994 for use by the DoD components in developing their recommendations. This interim force structure plan was reflected in the June 1994 Navy Ship and Aircraft Supplemental Data Tables (SASDT), which were used as the basis for determining requirements for purposes of the BSEC evaluations. Subsequently, the September 1994 SASDT, which reflected the DON budget inputs and matched the final force structure plan, showed an increase in force levels of two surface combatants and two nuclear submarines. The DON recommendations were reviewed in light of this change and were determined to be consistent with the force structure projected for FY 2001.

Selection Criteria

DEPSECDEF, in a memorandum dated November 2, 1994, prescribed the selection criteria to be employed by DoD components in base structure analyses to nominate BRAC-95 closure or realignment candidates. Those criteria, which are identical to those used in BRAC-91 and BRAC-93, are:

Military Value

1. The current and future mission requirements and the impact on operational readiness of the Department of Defense's total force.

2. The availability and condition of land, facilities and associated airspace at both the existing and potential receiving locations.

3. The ability to accommodate contingency, mobilization, and future total force requirements at both the existing and potential receiving locations.

4. The cost and manpower implications.

Return on Investment

5. The extent and timing of potential costs and savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed the costs.

Impacts

6. The economic impact on communities.

7. The ability of both the existing and potential receiving communities' infrastructure to support forces, missions, and personnel.

8. The environmental impact.

In accordance with the DoD guidance, priority consideration among those criteria was to be given to military value, or the first four criteria.

Categorization

The Base Closure Act requires that all military installations inside the United States (and its territories and possessions) not previously selected for total closure and exceeding prescribed civilian personnel thresholds must be considered equally, without regard to whether the installations have been previously considered or proposed for closure or realignment by the SECDEF. Based upon the guidance contained in the SECNAVNOTE, in order to comply with the requirements of the Base Closure Act relating to evaluation in light of the force structure plan and the selection criteria, the first step in the DON BRAC-95 process was to categorize DON military installations and to aggregate them for study for closure or realignment. The BSEC reviewed the categories which had been utilized for the BRAC-93 process and determined that, while the concept of aggregating installations according to their support of SECNAV's responsibilities under Title 10 of the U.S. Code to operate, maintain, train, and support the operating forces within the DON was still valid, three categories (operational, material, and personnel) did not provide a sufficient gradation to allow clear understanding of the similarities and differences of activities within those categories. Accordingly, the BSEC refined the distinctions and developed five major categories for organizing DON military installations

for analysis and evaluation: Operational Support, Industrial Support, Technical Centers/Laboratories, Educational/Training, and Personnel Support/Other. The purpose of these major categories was to allow focus on particular types of bases and to facilitate organization for analysis and evaluation. These categories were then further divided into subcategories to ensure that like installations were compared to one another and to allow identification of total capacity and military value for an entire subcategory of installations, as follows:

Operational Support
Naval Bases
Marine Corps Bases
Operational Air Stations
Reserve Air Stations
Fleet and Industrial Supply Centers
Construction Battalion Centers
Naval Security Group Activities
Integrated Undersea Surveillance System Facilities
Naval Computer and Telecommunications Stations
Naval Meteorology and Oceanography Centers
Military Sealift Command Activities
Engineering Field Divisions/Activities

Tech Centers/Labs
Technical Centers/Labs

Educational/Training
Training Air Stations
Training/Educational Centers

Industrial Support
Naval Aviation Depots
Naval Shipyards/Ship Repair Facilities
Weapons Stations/Strategic Weapons Facilities/Naval Magazines
Marine Corps Logistics Bases
Inventory Control Points
Shore Intermediate Maintenance Activities/Trident Refit Facilities/Reserve Maintenance Facilities
Public Works Centers
Supervisors of Shipbuilding, Conversion and Repair

Personnel Support/Other
Medical Activities
Dental Activities
Administrative Activities
Reserve Activities

In so dividing the categories into subcategories, the BSEC attempted to strike a balance in precisely dividing the world to allow evaluation of activities that were truly alike without making the divisions so small as to be meaningless (i.e., a single activity). Within these 27 subcategories are 830 individual Navy or Marine Corps installations or activities, each of which was reviewed during the BRAC-95 process. Although only 140 of these activities are above the statutory threshold of 300 authorized civilian personnel, the remainder of the activities were included in the evaluation because the DON infrastructure which will result from this round of base closure must be complementary and mutually supportive, regardless of the size of the activities.

Data Call Development and Responses

The next step in the BRAC-95 process was the development of requests for information, or data calls, for the purpose of collecting all types of information required for development of the BSDB. The data calls sought all relevant information on mission description and unique capabilities; established, programmed or planned requirements; inventory, capacity, and costs; lands, facilities, and air space; environmental and community impacts; and personnel and equipment. In addition, the BSEC directed that data calls be consistent for common subjects such as quality of life factors, recently completed military construction projects, and planned facility improvements. These data calls were prepared by the BSAT with the assistance of technical experts in the various disciplines and presented to the BSEC for approval, after which draft data calls were sent to the appropriate DON activities/installations to provide an advance indication of the types of information sought and to allow their commanders to forward any issues or comments regarding the data/information requested. After evaluation of the responses to the draft data calls, final versions were prepared for issuance.

Each installation received data calls relating to capacity and military value which were particularized to the subcategory in which the activity was grouped. In order to ensure that the fullest possible picture was obtained, activities which were "conglomerate" activities having more than one significant mission received multiple military value and capacity data calls relating to those missions. The responses to these data calls containing properly-certified data were entered into the BSDB and formed the sole basis for BSEC determinations.

The data call responses were filed by individual activity, each of which was assigned a unique number for identification purposes relating to the category, subcategory, and major claimant to which the activity belongs. By using these identifiers, as well as a unique, sequential, four-digit number assigned to each activity (i.e., 0001-9999), each activity folder containing all data call responses for that activity may be readily retrieved. This extensive cataloging system was designed to ensure that, upon completion of the DON BRAC-95 process, parties reviewing the effort (e.g., GAO) or interested in specific information (e.g., Congress) could easily find specific information.

Capacity Analysis

Capacity analysis was the process used to compare the present DON base structure to the future force structure requirements to determine whether excess base structure capacity exists within the DON. For each subcategory of installations, measures of capacity were selected which reflected the appropriate "throughput" for that type of installation. In choosing throughput measures, the BSAT reviewed the measures used for BRAC-93 and consulted with technical experts to ensure that the measures used in BRAC-95 were both valid and complete. It was most important that the capacity measures captured both generic facility requirements and relationships of the affected

installation to force structure. For example, in very generic terms, units of throughput at an air station are the number of aircraft squadrons able to be housed and supported. At a training center, units of throughput are expressed in terms of the number of personnel trained at that installation within a fiscal year.

Capacity analysis determined the maximum levels of throughput units capable of being processed by each DON installation in a subcategory based upon data contained in the certified responses to the capacity data calls. The capacities of all installations in a subcategory were summed and then compared with the capacity required to support the FY 2001 force structure. If total current capacity in a subcategory was greater than the future required capacity, excess capacity was deemed to exist within a particular DON subcategory. If there was no meaningful excess capacity in a subcategory, no installation in that subcategory was considered further for closure or realignment, although it could be considered as a possible receiving site. If there was meaningful excess capacity in that subcategory, the military value of each installation in that subcategory was evaluated. The fact that excess capacity was calculated at the subcategory (rather than the installation) level is an important distinction. Just as the categorization of installations was maintained at a high enough level to allow comparison of like activities, the initial determination of excess capacity was at a macro-level to allow the DON to obtain a clear picture of the amount of current capacity, without regard to where excess capacity was actually located. The other steps in the DON BRAC-95 process were designed to allow the narrowing of focus to develop options for reducing that excess.

Of the 27 subcategories evaluated, the BSEC determined during capacity analysis that eight of the subcategories demonstrated either little or no excess capacity and, accordingly, that further analysis for military value was not warranted. Those subcategories were Marine Corps Bases, Construction Battalion Centers, Naval Security Group Activities, Naval Computer and Telecommunications Stations, Naval Meteorology and Oceanography Centers, Military Sealift Command Activities, Public Works Centers, and Dental Activities. Of these, some might become excess capacity as a result of other basing decisions and would be revisited. Of the other subcategories with excess capacity, the excess ranged from almost 20 percent to almost 100 percent. The details of the capacity analysis for each of the subcategories, including those demonstrating no excess capacity, are contained in the Attachments.

Military Value Analysis

Whenever the capacity analysis indicated the presence of meaningful excess capacity within a particular subcategory, each installation in that subcategory was subjected to a military value analysis. The foundation of the analysis was the military value criteria, which are the first four of the eight selection criteria issued by SECDEF for making base closure and realignment recommendations and are given priority consideration. For purposes of the military value analyses, the BSEC's shorthand description of these criteria is as follows:

Criterion #1 The current and future mission requirements and the impact on operational readiness of the Department of Defense's total force.	=	Readiness
Criterion #2 The availability and condition of land, facilities, and associated airspace at both the existing and potential receiving locations.	=	Facilities
Criterion #3 The ability to accommodate contingency, mobilization, and future total force requirements at both the existing and potential receiving locations.	=	Mobilization Capability
Criterion #4 The cost and manpower implications.	=	Cost and Manpower Implications

The purpose of the military value analysis was to assess the relative military value of installations within a subcategory, using a quantitative methodology which was as objective as possible.

The process followed for the military value analysis entailed six stages with alternating BSAT and BSEC tasks. First, for each subcategory, the BSAT developed a list of questions based upon the questions asked in the data calls issued to the installations in that subcategory. These questions utilized as fully as possible all of the data requested and were constructed so as to be answerable as either a "yes" or a "no." Each question was annotated with the particular data call and data element from which it was derived, to allow audit of the answers to the questions. The questions were grouped by subject areas relevant to the subcategory being evaluated, such as mission, features and capabilities, infrastructure and facilities, operational factors, training, location, environment and encroachment, and quality of life. The extent of the questions ranged from as few as 12 (for a certain class of reserve centers) to as many as 195 (for technical centers). It is of note that a large percentage of the questions used to calculate military value also relate to the policy imperatives developed separately.

Next, the proposed questions were reviewed, modified, and ultimately approved by the BSEC. Once the questions were finalized, the BSEC quantified the importance

of those questions relating to all of the installations in a particular subcategory. The BSEC accomplished this, first, by assigning a value to each of the military value criteria so that the sum of the values equalled 100. For example, for Naval Hospitals, "Readiness" was valued 45, "Facilities" at 30, "Mobilization Capability" at 15, and "Cost and Manpower Implications" at 10. In each case, the values assigned reflected the relative importance that the BSEC gave to each criterion in assessing the military value of a particular subcategory of installations. Next, each question was placed in one of three bands (Band 1, 2, or 3) in descending order of importance of the subject matter contained in that question, after which each question was given a numerical score depending upon the priority band in which it was placed (i.e., Band 1: 10-6; Band 2: 7-3; and Band 3: 4-1). Finally, the BSEC assigned each question to one or more of the military value criteria based upon a determination of how the question contributed to the military value for this particular type of installation.

Based upon the BSEC's assignments of relative importance, the BSAT calculated the military value weight of each question and the overall weight of each group of questions. The military value weight for each question was computed by multiplying the numerical score assigned to the question by the value assigned to the first of the criteria to which the question was assigned, and then dividing by the sum of the numerical scores of all questions relevant to that criteria. This calculation was done for each relevant criteria for a particular question, and the sum of the results is the total weight associated with that question. As the result of this formulation, the weight of any particular question depends heavily on the number of military value criteria to which it is assigned (and the values assigned to the criteria by the BSEC) and the number of other questions assigned to those criteria. The BSAT also calculated the overall weight of each group of questions to show the relative importance of the functional groupings of the questions.

The BSEC then reviewed the question weights to ensure that they properly reflected the judgment of the BSEC as to what was important about a subcategory of installations. The review sought to identify anomalies in the relative importance of questions and to determine whether the groups of questions were proportionate to their importance for the subcategory. It is critical to note that this review was conducted before answers to the questions for specific installations were made available to the BSEC. There were a number of instances where the BSEC refined its approach for valuing elements of subcategories, with a view to ensuring that it had adequately focused on what was truly of value. It was during this review, for instance, that the BSEC developed its concept for dealing with quality of life issues at installations. While the BSEC recognized that quality of life is a significant element in the overall Department of the Navy program and so should be handled consistently in the base closure evaluation process, the DON was criticized in BRAC-93 for treating quality of life issues the same for all activities and thereby potentially distorting military value scores for some activities. To respond to this criticism, the BSEC directed the BSAT to use a defined set of quality of life questions, scores, and criteria assignments in the military value matrix for each subcategory. This standard set served as a starting point to foster discussion by

the BSEC regarding suitability for a particular subcategory and to allow the BSEC to adjust the quality of life section for each subcategory to reflect differences in quality of life considerations between types of installations. As a result of this mechanism, the BSEC tailored quality of life values for BRAC-95 to the activities based on the size and demographics of the military personnel stationed there. A similar approach was taken in validating all other elements.

Once the weight, or points, for each question in the matrix for a particular subcategory was approved, the BSAT answered the questions for each installation within that subcategory using certified data from the data call responses provided by the activity through the chain of command. If the answer to the question was "yes," the installation received the points for that question. After each question for each installation was answered, the total point score was determined for each installation in that subcategory through simple addition of the points relating to each "yes" answer. The highest military value score any activity could achieve was generally less than 100, because most of the matrices used "cascading" questions for which the activity received value only for the highest valued question that could be answered positively for that particular activity. Upon completion of these calculations, the questions and answers were displayed on a completed matrix sheet for review and analysis by the BSEC.

The BSEC then reviewed the completed military value matrices for consistency and counter-intuitive results. The BSAT provided extensive briefings regarding these matrices, including identification of particular questions whose answers were not readily discernable from an initial analysis of the certified data call responses. Where necessary, the BSEC reviewed individual certified data call responses and determined whether a particular installation received credit for the question. During this review of the matrices, the BSEC issued guidance to the BSAT on conventions to be used to ensure consistency of data analysis, such as what constituted "unique" facilities or capabilities, what constituted "specific capabilities for handling/disposing of hazardous waste/materials," what criteria should be used in giving credit to activities narrowly missing a question threshold or numerical cutoff, and what crime statistics should be used in the quality of life section. Based upon BSEC guidance, adjustments were made as necessary, and each installation was rescored. The BSEC then approved the final military value point total, or score, for each installation within a subcategory. As a result of the methodology described above, by the time a final military value score was calculated for each installation, the BSEC had reviewed each of the questions in a military value matrix a minimum of three times and each time from a different perspective and for a different reason.

It is important to understand what a military value score is, and what it is not. The score for a particular installation is a relative measure of military value within the context only of the subcategory in which that installation is being analyzed. It merely provides a means to compare one installation in a subcategory against another installation in that category, and the total score has limited utility in depicting why one activity is

more or less "valuable" than another activity in that subcategory. The highest possible score in any subcategory may not be 100, since most of the matrices included "cascading" questions which allowed credit only for the highest breakpoint achieved and not for lesser-included questions. While the differences in scores in a subcategory are consistent because they were all derived from the same set of questions, what makes the scores different can be discerned only by looking at answers to those questions. Furthermore, the score obtained by an activity in one subcategory has no relevance for comparison to the score obtained by an activity in another subcategory, since the questions and quantitative scores were different for each matrix. For evaluative purposes, the process of arriving at the military value scores was as important as, if not more important than, the scores themselves. The process enabled the BSEC to focus on each subcategory individually, to consider that subcategory and its relevance within the DON infrastructure, to articulate what was important about the group of activities, and to identify critical differences between activities within a subcategory. The military value analysis, then, is a process which translated mature, military judgment into a military value score which was a useful "quantifier."

Configuration Analysis

The results of the capacity analyses and military value analyses were then combined in that stage of the DON BRAC-95 process called configuration analysis. The purpose of configuration analysis was to identify, for each subcategory of installations, that set of installations that best meets the needs of the Navy and Marine Corps, in light of future requirements, while eliminating the most excess capacity. Configuration analysis used a mixed-integer linear programming solver, AMPL/OSL, to generate multiple solutions which would satisfy capacity requirements for the future force structure, would maintain an equivalent or greater average military value of the retained installations (when compared to the current mix of installations), and would meet parameters required by operational or policy considerations.

Before using the configuration computer model, "rules" about a subcategory were added so that the model would not select an operationally infeasible solution. Left to run without guidance, the model might well identify a set of bases that eliminated excess capacity but which bore little resemblance to operational realities. For example, if the East Coast naval bases had just enough berthing capacity to handle all of the ships in the FY 2001 force structure plan, the model could place all the ships in those bases and suggest closure of all of the West Coast and Pacific bases, which would be militarily unacceptable. The naval base model, therefore, included a rule that ships were to be split between the Atlantic and Pacific Fleets in the ratios reflected in the FY 1996 President's Budget Submission. The parameters and rules were reviewed by the BSEC to ensure that they were the minimum needed for the model to operate, so as not to artificially affect the model results.

Once the parameters and rules were approved for a particular subcategory, the computer model was used to calculate solutions. The optimal solution retained the smallest possible total capacity, assigned all "units" to an installation but no more "units" than an installation can support in terms of resources, and maintained the average military value of the retained installations at a level equal to or greater than the average military value for all of the installations in the subcategory. The second best and third best solution sets were derived by excluding previously generated solutions. Sensitivity analyses were also conducted on most subcategories to determine the effect on the solutions if the FY 2001 requirements were increased or decreased by 10-20 percent. The excess capacity remaining and the average military value were calculated for each solution for comparison purposes. Additionally, in several of the subcategory models, a feasibility check was conducted to ensure that the retained sites could, in fact, accommodate the workload or units assigned to activities as part of the computations.

Configuration analysis was a critical tool within the DON BRAC-95 process because of the nature of DON installations and of the types of excess capacity that exist. DON military installations generally are not single function bases, although they are integrally tied to the fleet and the forward-deployed mission of the Department. In many cases the precise relationship between an activity's capacity and future force structure is not easily discernible, and excess capacity in the aggregate can be made up of small amounts of excess in many different places. As a result of these factors, it is difficult to identify segments of bases that equate to the precise amount of excess capacity that exists in any given subcategory. Given these realities, possible combinations for basing Navy and Marine Corps assets could be unlimited. Use of the computer model allowed the BSEC to focus its attention on multiple solutions for each subcategory which were viable in light of identified limitations.

Scenario Development

The configuration analysis solutions were used by the BSEC as the starting point for the application of military judgment toward the development of potential closure and realignment scenarios which would undergo analysis to determine return on investment. This part of the process was critical for several reasons. First, the BSEC was seeking to look at multiple options for eliminating subcategory excess, in part because of criticism levied in BRAC-93 that insufficient alternatives were considered and in part because the solutions were not as readily obvious since so much excess capacity had been shed in prior base closure rounds. Secondly, the BSEC recognized the desirability of having scenario development be an iterative process in which it could use the results from COBRA analysis and inputs from the senior Defense leadership to generate additional options. Finally, the configuration analysis process had been deliberately constructed to arrive at extreme solutions which would eliminate the most amount of excess. This enabled the BSEC to consider the potential operational impacts of such a course of action and to consider whether the Department could afford to, or afford not to, keep excess capacity in any particular subcategory.

BSEC Discussion. In reviewing the configuration model solutions, the BSEC tended to focus on activities which repeatedly were presented as closure alternatives by the model, since this suggested that, because of military value and/or capacity, those activities were appropriate candidates for eliminating excess capacity. The BSEC agreed that the viability of these alternatives would depend upon the costs and savings associated with their closure. Many of the alternatives for which COBRA scenario development data calls were issued were of this nature, and the COBRA analysis was used to allow the BSEC to further refine its understanding of how most appropriately to eliminate excess capacity for particular subcategories. For instance, in the case of Supervisors of Shipbuilding, Conversion and Repair (SUPSHIP), the initial COBRA scenarios sought the closure of six out of thirteen activities. This high number of activities was the result of an apparent large amount of excess capacity, and the configuration model sought to eliminate the greatest amount of excess. However, the certified data call responses revealed that many of the costs associated with these closures resulted from requirements for increased travel from the remaining activities in order to provide necessary contract support at the contract sites. Accordingly, the BSEC issued additional COBRA scenario data calls which sought information on the costs and savings of SUPSHIP activities which demonstrated a decline in workload through FY 2001.

In other cases, the BSEC reviewed the configuration results and the resultant remaining capacity should all of the activities suggested by the solution be closed and determined that the configuration remaining would diminish required operational flexibility or required capability. For instance, in the subcategory of Ordnance Activities, despite the presence of excess capacity and a solution that would close activities in this subcategory, the BSEC determined not to recommend any closures because of the uncertainty of the actual future weapons storage requirements and the need to maintain adequate surge capacity for outload of weapons. Similarly, in the Naval Stations subcategory, the configuration solution suggested closure of the Naval Amphibious Base, Little Creek, Virginia, and Naval Submarine Base, San Diego, California. While the BSEC requested COBRA data on the closure of these activities, there was great concern expressed at the outset over the limited ability that would remain to respond to future changes in force structure numbers, fleet composition, and operational tempo. This concern was shared by the DON leadership, as described below. Despite the fact that several of these closure alternatives appeared to result in long-term savings to the Department, the BSEC ultimately recommended their retention in order to preserve operational flexibility.

DON Leadership Input. An integral part of scenario development was the input received from the Fleet CINCs, the major claimants (including the SYSCOM Commanders), and the DON civilian leadership. The CINCs and major claimants provided input both directly, during meetings, and indirectly, through COBRA scenario data call responses. When the COBRA scenarios were issued, the major claimants were advised that, while they needed to provide information that was responsive to the data call, they could also suggest receiving sites for the closing activity other than those

contained in the scenario description. Several of these suggested alternatives, particularly in the Technical Centers scenarios, capitalized on synergies which resulted from consolidation of functions with like functions existing elsewhere (e.g., the transfer of the weapons function from Naval Air Warfare Center, Aircraft Division, Indianapolis, Indiana, to Naval Air Warfare Center, Weapons Division, China Lake, California).

Perhaps more important from the standpoint of the viability of the DON BRAC-95 process was the input received from the CINCs and major claimants during deliberative meetings with the BSEC. During those sessions, the attendees were advised of the progress of the process and the results of the analyses, to include alternatives under consideration, and asked to comment on the potential impacts on operations and support. The discussions which occurred during these meetings were the basis for a clearer understanding of, among other things, the need to only retain access to Guam (as opposed to "presence on"), the importance of the unrestricted airspace associated with NAS Key West, and the desirability of retaining the most fully capable air station possible north of the Norfolk fleet concentration.

The BSEC also had meetings with the senior Navy, Marine Corps, and Departmental leadership which resulted in similar expressions of operational and policy concerns which assisted the BSEC in articulating their ultimate recommendations. In order to fully understand the configuration results which indicated that neither of the Marine Corps Recruit Depots (MCRDs) could close unless there was a 10 percent decline in recruit throughput, the Under SECNAV requested the BSEC to review the costs attendant with closing each of the MCRDs and consolidating training at the other. The COBRA results substantiated the capacity analysis inherent in the configuration model. Similarly, the requirement to respond to potential future force structure increases and the possibility of reversals of decisions to decommission certain classes of ships discussed during these sessions confirmed the BSEC's recommendations to retain certain amounts of excess capacity in naval stations and shipyards.

Joint Cross-Service Group Input. Numerous alternatives were generated by the JCSGs as the result of their analysis of data and information provided by the Military Departments. The DON considered all alternatives received and responded to all requests for data received from the other Military Departments seeking realignment information in order to complete their internal cost analyses. For those JCSG alternatives proposing closure or realignment of DON activities or installations, all but one of the Depot Maintenance alternatives, all of the significant Laboratory alternatives, all of the Military Treatment Facilities alternatives, all of the significant Test and Evaluation alternatives, and all of the Undergraduate Pilot Training alternatives resulted in COBRA scenario data calls.

Because of the detailed approach utilized by the JCSGs for Laboratories and Test and Evaluation, there is not a one-for-one correlation with DON Technical Center scenarios. For example, 75 percent of the alternatives proposed by the Laboratory JCSG

involved the realignment of functional workload with less than 40 workyears maximum capacity, and were not considered to be significant to the BRAC process, but possible under other work management procedures available to the DON. DON Technical Center scenarios which involved both Laboratories and Test and Evaluation propose the elimination of nearly 13,000 workyears of technical capacity and an elimination of nearly 4,000 positions. However, the efforts of the JCSGs clearly complemented the DON analytical and deliberative process. Many of the alternatives forwarded by the JCSGs were anticipated by DON scenarios already being analyzed, and the DON recommendations include 20 recommendations which mirror JCSG alternatives. From the standpoint of scenario development, the joint cross-service process, like the input received from the DON leadership, provided a broader sense of what was possible and operationally or functionally valid.

Community Preference Request. Section 2924 of the Base Closure Act requires that steps be taken as necessary to assure that special consideration and emphasis is given to any official statement from a unit of general local government adjacent to or within a military installation requesting the closure or realignment of such installation. One such request was received by the DON during BRAC-95. The Mayor of the Island of Vieques sent two letters to the Secretary of the Navy. The first, dated May 24, 1994, requested the closure of the Naval Ammunition Facility (approximately 8,000 acres) on Vieques. The second request, dated June 24, 1994, requested the closure of all naval facilities (24,000 acres) on Vieques.

The BSEC specifically discussed this request at two deliberative sessions. Review of the certified data available indicated that the naval facilities on Vieques are part of Naval Station, Roosevelt Roads. On the eastern portion of Vieques is the Atlantic Fleet Weapons Training Facility, which includes the multi-purpose, live ordnance target range, electronic warfare range, and amphibious and mine warfare training areas. On the western portion of Vieques is the Naval Ammunition Storage Depot (NASD). The CINC, Atlantic Fleet, advised the BSEC that the Vieques training facility is the only multi-faceted, naval gunfire and aviation ordnance live-fire range in the Atlantic available to the U.S. and its allies. The ammunition stored on Vieques is used to support the live-fire training, and the water drawn at the NASD supports all DON activities on Vieques. After due consideration, the BSEC determined that the closure of DON facilities on Vieques would eliminate an indispensable training resource that could not be duplicated and thus could not be recommended for closure.

Summary. As a result of the scenario development portion of the DON BRAC-95 process, the BSEC developed 174 scenarios involving 119 activities. This included 48 alternative scenarios suggested by major DON Owners/Operators and the JCSG alternatives affecting 49 activities. Throughout scenario development, the BSEC adhered to the principle that the net result of their closure and realignment recommendations should be an increase in the average military value of the DON infrastructure that would remain. While they recognized that excess capacity would be substantially reduced if all

of their alternatives were implemented, the iterative discussions with DoD and DON leadership support the conclusions that some activities are not configured in such a way that the excess can or should be reduced to zero.

Return on Investment Analysis

Costs, savings, and return on investment for each DON installation considered for closure or realignment were calculated using the Cost of Base Realignment Actions (COBRA) algorithms. The COBRA algorithms, which DoD mandated for use by the Military Departments, are used to estimate one-time and recurring costs and savings, the number of years required to obtain a return on investment, and a twenty-year net present value of costs and savings associated with the closure/realignment action.

COBRA analyses were conducted on all closure/realignment scenarios developed by the BSEC as described above. Source data for the COBRA analyses consisted of certified responses to COBRA scenario data calls from the chains of command of affected installations and their tenants. The scenario data calls were drafted by the BSAT, using a standardized format which had been previously provided to the major claimants, and approved by the BSEC. Draft guidance on the elements which would be sought in the data calls had been prepared and distributed early in the BRAC-95 process to assist field activities in being ready to respond to the scenario data calls. The data calls were telefaxed to the cognizant major claimant, who was responsible for obtaining certified data regarding all activities and tenants affected by the scenario. Losing/gaining commands and/or activities were directed to adequately coordinate the response in order to maximize opportunities for consolidation savings, elimination of redundant efforts, and reductions in personnel and to ensure that alternate ideas on ways of accomplishing functions were fully considered. As opposed to DON's experience in BRAC-93 where the response time for COBRA data calls was severely constrained, in BRAC-95 the minimum response time was double that of BRAC-93 and, in many cases, was substantially more.

The methodology/assumptions used in the COBRA return on investment calculations were derived from OSD policy guidance, standard DoD and DON costing practices/policies, and BSEC-approved conventions. These conventions included assumptions on such data elements as proceeds from land sales, construction cost avoidances, use of FY 1996 budget data for base operating support (BOS) and family housing costs, and costs for disassembly, packaging, handling, shipping, and inventory of equipment and material.

In analyzing the COBRA scenario data call responses, the BSEC aggressively challenged cost estimates to ensure both their consistency with standing policies and procedures and their reasonableness. Unless otherwise noted, scenario data call taskings assumed total closure, with only critical functions and facilities being moved. It was not expected that there would be a replication of all existing facilities at another site nor that

all personnel would move. The BSEC looked to see whether alternate ways of accomplishing critical functions were considered in the scenario data call responses. Illustrative issues which were discussed by the BSEC during review and evaluation of the scenario data call responses include the following:

> With many ships being mothballed, decommissioned and excessed, the number of ships produced decreasing to a very small number, and the number of programs also reducing significantly, why is a replication of in-house depot facilities required instead of depending on the government-owned equipment at the contractor's plant and/or GOCO facilities?
>
> Previously, systems and support equipment were taken off decommissioned ships and aircraft and used as spares instead of refurbishing ones at depots. Is this being considered as an alternative to minimize the relocation/replication cost in the closure scenarios?
>
> DoD imperatives direct a policy of outsourcing and a minimization of production and manufacturing in-house. Do the responses consider which functions are government-critical and which are most appropriately done by private industry? Are there functions that could be eliminated in-house so as not to have the requirement for replication of facilities at a gaining site of the same magnitude and capacity as exists currently at the proposed losing site?

In reviewing responses to scenarios which contemplated consolidation of activities, the BSEC looked for (1) significant eliminations of support personnel, (2) considerable reduction of technical personnel, and (3) considerable excessing of equipment and facilities. Similarly, with reductions in budgets, number of programs, and numbers of systems being produced, the BSEC reviewed the data call responses to ensure that the outyear requirement was appropriately reduced in terms of personnel, facilities, and capacities of remaining facilities.

The BSEC used the COBRA algorithms as a tool to ensure that BRAC-95 realignment and closure recommendations were cost effective. However, the COBRA analysis was not used by the BSEC in an attempt to make base closure recommendations simply on the basis of identifying a "lowest cost" alternative. The BSEC was particularly sensitive to up-front costs and the length of time required to obtain a return on investment because of the difficulties in ensuring sufficient funding and resources to execute base closure. As a result, the up-front costs estimated for the DON BRAC-95 recommendations are the lowest of any round of base closure, and the longest period for return on investment of any recommendation is four years. The vast majority of the recommendations will obtain an immediate return on investment, with savings offsetting costs of closure within the closure implementation period.

Economic Impact Analysis

The impact on the local economic area for each DON installation considered for closure or realignment was calculated using the DoD BRAC-95 Economic Impact Data Base. This data base, which DoD mandated for use by the Military Departments, is used to calculate the estimated total change in employment resulting from the closure/realignment action. This change is expressed as both a total number of jobs (direct and indirect) and as a percent of employment in the economic area.

As a part of its deliberative process, the BSEC reviewed the estimated change in employment resulting from each closure or realignment action, as well as the cumulative impact on the economic area of both prior BRAC actions yet to occur and any other planned BRAC-95 actions in the area. The BSEC examined historical profile data for each affected economic area to discern a general description of both the prevailing economic conditions and recent changes in the local economy.

The DON is very concerned about economic impact and has made every effort to fully understand all of the economic impacts its recommendations might have on local communities. The charts on this and the following page show a summary of the economic impact of recommended base closures or realignments on a regional and national level. The result of this thorough economic analysis is reflected in the final BRAC-95 recommendations approved by the SECNAV.

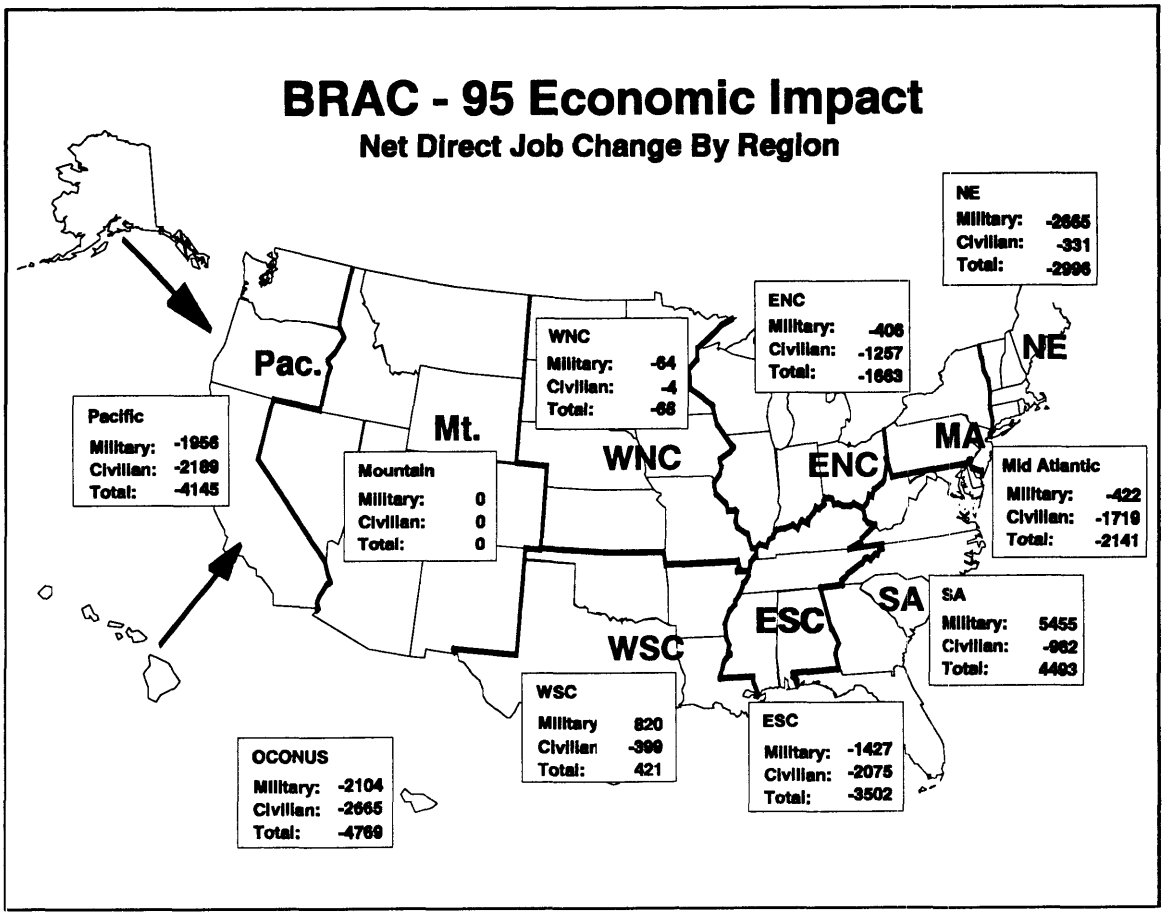
DON BRAC-95 Economic Impact
Job Change by Fiscal Year

National Summary

	1996	1997	1998	1999	2000	2001	Total
Direct Job Change:							
Military:	-245	-1,143	-348	-928	-20	-85	-2,769
Civilians:	-387	-4,982	-752	-1,931	-443	-220	-8,715
Contractors:	-135	-644	-359	-1,377	-296	-75	-2,886
Total:	-767	-6,769	-1,459	-4,236	-759	-380	-14,370
Indirect Job Change:							-18,396
Total Job Change (Over 6 Year Period):							-32,764

Total Job Change as a % of National Employment: 0.0%

Current National Job Growth Rate: 300,000 jobs per month



Community Infrastructure Impact Analysis

Certified data call responses included information on the ability of existing infrastructure in the local community to absorb additional DON personnel and missions. Activities were asked to assess the impact of increases in base personnel on such infrastructure items as off-base housing availability, public and private schools, public transportation, fire protection, police, health care facilities, and public utilities (i.e., water supply and distribution; energy supply and distribution; waste water, storm water, solid waste and hazardous waste collection and disposal; and recreational activities). Additionally, the activities were specifically asked in the COBRA scenario data calls to identify community infrastructure impacts that could arise from a particular alternative, if it were to be adopted. With this information, the ability of a potential receiving installation to support additional missions and personnel was evaluated. No significant, quantifiable community infrastructure impacts were identified for any of the DON proposed closure or realignment actions.

While these impacts may not be demonstrated by the data, the BSEC nonetheless was very concerned about community infrastructure impacts at all receiving sites, and after a thorough review, determined that NAWC Patuxent River, Maryland, was being stressed by the cumulative effects of BRAC recommendations, many of which involved construction of new facilities. Accordingly, the BSEC directed the BSAT to explore whether there were alternate receiving sites for personnel being moved there under the BRAC-95 recommendations. In response to that direction, the BSAT suggested that both the Naval Air Technical Services Facility and the Naval Aviation Engineering Support Unit could relocate to NADEP North Island, California, and that additional portions of the Naval Air Warfare Center, Aircraft Division, Indianapolis, Indiana, could relocate to Naval Air Warfare Center, Weapons Division, China Lake, California. The BSEC recommendations, which are in accord with these suggestions, lessen the impact on the local Maryland infrastructure occasioned by BRAC-95 recommendations and, in addition, consume existing excess depot and technical center capacity in lieu of building new capacity.

Environmental Impact Analysis

To comply with the eighth selection criterion, a data call requesting data on environmental issues was forwarded to each host or independent installation reviewed during BRAC-95. The data call's purpose was to obtain certified data that would be utilized in an assessment of the potential environmental impacts associated with the closure or realignment of Navy and Marine Corps activities, such as threatened/endangered species, sensitive habitats and wetlands, cultural/historic resources, environmental facilities, pollution control, compliance, hazardous materials/waste, installation restoration, and land, water, and airspace use.

An environmental quotient (EQ) for each host activity was developed from the certified information obtained in the Environmental Data Call. The EQ is based on the premise that, in a downsizing DON with fewer resources to handle complex issues, less management effort required for environmental issues contributes to more efficient utilization of resources. Conceptually, the environmental quotient is a measure of how much of an installation's management effort is devoted to environmental issues. The higher the EQ is, the lower is the management effort. The methodology avoids making value judgments on the environmental condition of property and merely portrays the certified information in a standardized format for relative comparisons within installation subcategories.

Once the BSEC had determined the closure/realignment alternatives which were serious candidates, the BSAT prepared an environmental summary for each scenario which was presented to the BSEC for their review. To the extent pertinent for each action, the environmental summary notes the EQ, the anticipated air quality impacts resulting from the action, and other anticipated environmental impacts resulting from the action for both closing and receiving bases. Within each environmental summary, the

EQs previously calculated were discussed to compare the environmental management efforts at losing and gaining sites affected by each scenario. Differences in environmental management effort were presented as they relate to such programs as threatened/endangered species, wetlands, cultural resources, land use, air quality, environmental facilities, and installation restoration (IR) sites. The impact of the proposed action on the overall level of environmental management effort at losing versus gaining sites was discussed.

The carbon monoxide (CO), ozone, and particulate matter (PM-10) classifications (attainment/non-attainment) of the Air Quality Control Districts in which the gaining and losing bases were located were discussed in the environmental summary. Projected increases and decreases to receiving base populations were calculated based on personnel moves which were part of COBRA. Receiving base populations, retrieved from the BRAC-95 Manpower Database, shown for FY 1996 and FY 2001, were used to calculate projected force structure reductions. Receiver sites which are in non-attainment or receiving sites (regardless of air quality classification) which were gaining more than 20 percent of current base population levels were identified for potential air quality conformity determinations.

The environmental summaries also discussed other anticipated environmental impacts at both the closing and the receiving bases. For closing/realigning bases, significant personnel losses were identified as having a positive impact on the environment where air quality, natural resources, or cultural resources may benefit. Particular benefits or concerns associated with closing/realigning bases were discussed to the extent that information was provided in the environmental, capacity, or military value data calls. Additionally, the environmental summaries identified compliance cost avoidances at closing bases, if known. One-time savings identified for compliance projects which may not need to be executed due to base closure are approximately $38 million, with additional annual savings expected of approximately $14 million. These are conservative estimates, reflecting the uncertainty of project requirements due to reuse and the limited compliance program specifics for outyears. For receiving bases, specific increases to personnel loading not already covered in the air quality discussion were described, as was the ability of the existing utility infrastructure, environmental facilities, and undeveloped, unconstrained land to handle the additional personnel and operations.

During its review of the environmental summaries, the BSEC discussed the DON commitment to integration of base closure and realignment actions with environmental laws and regulations at both the federal and state levels, to include control methods required by the Clean Air and Clean Water Acts to control emissions to air and discharges to water at bases receiving functions and assets from other bases. The environmental impact analysis permitted the BSEC to obtain a comprehensive picture of the potential environmental impacts arising from the recommendations for closure and realignment and to determine whether environmental issues supported reconsideration of any recommendation. No significant environmental impacts were identified for any

scenario. It is of note that no alternative receiver site was deemed inappropriate because of environmental issues and that many of the changes resulted in a positive environmental impact.

Conclusion

A detailed description of the analyses conducted for each of the subcategories is contained in the beginning of each Attachment to this Report, followed by any recommendations which may have resulted. An index of the Attachments may be found at page 43.

CHAPTER 5

RECOMMENDATIONS

In accordance with the instructions from DoD contained in the DEPSECDEF memorandum to the Secretaries of the Military Departments dated 23 January 1995 (Subject: BRAC 95 Closure and Realignment Recommendations), attached hereto as Attachments A - AA are the justifications and impacts of the Department of the Navy's recommendations for closure and/or realignment of Navy and Marine Corps military installations. These recommendations were derived from the process outlined in Chapter 4. In summary, the recommendations are as follows:

Naval Activities, Guam (Page A-7)
Naval Air Facility, Adak, Alaska (Page C-7)
Naval Air Station, Agana, Guam Redirect (Page C-9)
Naval Air Station, Alameda, California Redirect (Page C-11)
Naval Air Station, Barbers Point, Hawaii Redirect (Page C-13)
Naval Air Station, Cecil Field, Florida Redirect (Page C-15)
Marine Corps Air Station, El Toro, California, and Marine Corps Air Station, Tustin, California Redirect (Page C-17)
Naval Air Station, Key West, Florida (Page C-19)
Naval Air Facility, Detroit, Michigan Redirect (Page D-5)
Naval Air Station, South Weymouth, Massachusetts (Page D-7)
Reserve Centers/Commands (Page E-9)
Naval Air Station, Corpus Christi, Texas (Page F-7)
Naval Air Station, Meridian, Mississippi (Page F-9)
Naval Technical Training Center, Meridian, Mississippi (Page G-9)
Navy Nuclear Power Propulsion Training Center, Naval Training Center, Orlando, Florida Redirect (Page G-11)
Naval Training Centers Redirect (Page G-13)
Naval Aviation Depot, Pensacola, Florida Redirect (Page H-5)
Ship Repair Facility, Guam (Page I-7)
Naval Shipyard, Long Beach, California (Page I-9)
Naval Shipyard, Norfolk Detachment, Philadelphia, Pennsylvania Redirect (Page I-11)
Fleet and Industrial Supply Center, Charleston, South Carolina (Page N-5)
Fleet and Industrial Supply Center, Guam (Page N-7)
Naval Surface Warfare Center, Carderock Division Detachment, Annapolis, Maryland (Page X-13)
Office of Naval Research, Arlington, Virginia Redirect (Page X-15)
Naval Medical Research Institute, Bethesda, Maryland (Page X-17)
Naval Management Systems Support Office, Chesapeake, Virginia (Page X-19)
Naval Air Warfare Center, Aircraft Division, Indianapolis, Indiana (Page X-21)

Naval Undersea Warfare Center, Keyport, Washington (Page X-23)
Naval Air Warfare Center, Aircraft Division, Lakehurst, New Jersey (Page X-25)
Naval Surface Warfare Center, Crane Division Detachment, Louisville, Kentucky (Page X-27)
Naval Undersea Warfare Center, Newport Division, New London Detachment, New London, Connecticut (Page X-29)
Naval Biodynamics Laboratory, New Orleans, Louisiana (Page X-31)
Naval Command, Control and Ocean Surveillance Center, In-Service Engineering East Coast Detachment, Norfolk, Virginia (Page X-33)
Naval Air Warfare Center, Aircraft Division, Open Water Test Facility, Oreland, Pennsylvania (Page X-35)
Naval Research Laboratory, Underwater Sound Reference Detachment, Orlando, Florida (Page X-37)
Naval Air Technical Services Facility, Philadelphia, Pennsylvania (Page X-39)
Naval Aviation Engineering Service Unit, Philadelphia, Pennsylvania (Page X-41)
Naval Command, Control and Ocean Surveillance Center, In-Service Engineering West Coast Division, San Diego, California (Page X-43)
Naval Health Research Center, San Diego, California (Page X-45)
Naval Personnel Research and Development Center, San Diego, California (Page X-47)
Naval Air Warfare Center, Aircraft Division, Warminster, Pennsylvania (Page X-49)
Naval Command, Control and Ocean Surveillance Center, RDT&E Division Detachment, Warminster, Pennsylvania (Page X-51)
Naval Surface Warfare Center, Dahlgren Division Detachment, White Oak, Maryland (Page X-53)
Naval Information Systems Management Center, Arlington, Virginia (Page Y-7)
Naval Sea Systems Command, Arlington, Virginia Redirect (Page Y-9)
Space and Naval Warfare Systems Command, Arlington, Virginia Redirect (Page Y-11)
Naval Recruiting Command, Washington, D.C. Redirect (Page Y-13)
Naval Security Group Command Detachment Potomac, Washington, D.C. Redirect (Page Y-15)
Naval Recruiting District, San Diego, California Redirect (Page Y-17)
Supervisor of Shipbuilding, Conversion and Repair, USN, Long Beach, California (Page AA-5)

Page numbers refer to the page in the appropriate Attachment where the actual recommendation and justification may be found.

CHAPTER 6

BUDGET IMPACTS

As described earlier, the Cost of Base Realignment Actions (COBRA) algorithms were used to estimate costs and savings associated with closure and realignment recommendations. COBRA costs and savings are estimated in two ways. First, some costs and savings are automatically calculated based on standardized algorithms (for example, personnel and moving costs). Remaining costs and savings reflect specific costs/savings identified during the COBRA scenario development effort, such as construction costs and construction cost avoidances. These estimates received close scrutiny by the BSEC, since they were often very significant. For example, in the case of Operational Air Stations, in lieu of closing an additional air station, the DON BRAC-95 recommendations result in the elimination of new construction requirements equivalent to building an additional air station.

The total one-time cost to implement all Department of the Navy recommendations is approximately $1.2 billion. These one-time costs are more than offset by approximately $1.5 billion in one-time savings, most of which reflect currently programmed funds. The net of all costs and savings during the implementation period is a savings of approximately $2.8 billion. Annual recurring savings after implementation are approximately $605 million with an immediate return on investment expected in most cases. The net present value of the costs and savings for all recommendations over 20 years is a savings of approximately $8.5 billion.

The following table is a display of estimated total yearly costs and savings.

Estimated DON BRAC-95 Costs and Savings

	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Beyond
Costs:	366	309	318	418	197	121	121
Savings:	710	722	817	695	806	751	726
Net:	-344	-413	-499	-277	-609	-630	-605

All figures are shown in millions of dollars and are constant FY 1996 dollars. Net Savings are shown as negative numbers.

The predicted savings shown above do not include any revenue which might result from the sale of land and facilities which will be available for other uses as a result of the

recommended actions. While use of the COBRA algorithms provides a uniform methodology for estimating relative costs and savings associated with closure or realignment actions, it should be noted that COBRA output is not intended for use in preparing detailed budgets.

One of the major differences between COBRA cost estimates and actual budgetary impact is the identification of environmental clean-up costs. Since environmental clean-up costs are a liability that the government will incur regardless of whether the installation is closed or remains open, these costs are not included in the calculation of return on investment. These costs will, however, need to be addressed during implementation. However, even if we were able to estimate all environmental costs prior to actual implementation, given the immediate payback of the majority of the DON recommendations, inclusion of these costs would still result in a reasonable return on investment.

BRAC-95 CERTIFICATION

I certify that the data supporting these recommended closures and realignments are complete and accurate to the best of my knowledge and belief.

Robert B. Pirie
Assistant Secretary of the Navy
(Installations and Environment)
Chair, Base Structure Evaluation
Committee

Charles P. Nemfakos
Deputy Assistant Secretary of the Navy
(Force Basing and Infrastructure
Requirements Analysis)
Vice Chair, Base Structure Evaluation
Committee

Genie McBurnett
Deputy Commander, Space and Naval
Warfare Systems Command
Member, Base Structure Evaluation
Committee

Vice Admiral Richard Allen, USN
Commander, Naval Air Force Atlantic
Member, Base Structure Evaluation
Committee

Vice Admiral William A. Earner, USN
Deputy Chief of Naval Operations
(Logistics)
Member, Base Structure Evaluation
Committee

Lieutenant General Harold W. Blot,
USMC
Deputy Chief of Staff for Aviation
Member, Base Structure Evaluation
Committee

Lieutenant General James A. Brabham,
USMC
Deputy Chief of Staff for Installations and
Logistics
Member, Base Structure Evaluation
Committee

Elsie Munsell
Deputy Assistant Secretary of the Navy
(Environment and Safety)
Member, Base Structure Evaluation
Committee

BRAC-95 CERTIFICATION

I certify that the data supporting these recommended closures and realignments are complete and accurate to the best of my knowledge and belief.

John H. Dalton
Secretary of the Navy

ATTACHMENTS

Attachment A:	Naval Bases
Attachment B:	Marine Corps Bases
Attachment C:	Operational Air Stations
Attachment D:	Reserve Air Stations
Attachment E:	Reserve Activities
Attachment F:	Training Air Stations
Attachment G:	Training/Educational Centers
Attachment H:	Naval Aviation Depots
Attachment I:	Naval Shipyards
Attachment J:	Ordnance Activities
Attachment K:	Marine Corps Logistics Bases
Attachment L:	Inventory Control Points
Attachment M:	Shore Intermediate Maintenance Activities
Attachment N:	Fleet and Industrial Supply Centers
Attachment O:	Public Works Centers
Attachment P:	Construction Battalion Centers
Attachment Q:	Naval Security Group Activities
Attachment R:	Integrated Undersea Surveillance System Facilities
Attachment S:	Naval Computer and Telecommunications Stations
Attachment T:	Naval Meteorology and Oceanography Centers
Attachment U:	Medical Activities
Attachment V:	Dental Activities
Attachment W:	Military Sealift Command Activities
Attachment X:	Technical Centers/Laboratories
Attachment Y:	Administrative Activities
Attachment Z:	Engineering Field Divisions/Activities
Attachment AA:	Supervisors of Shipbuilding, Conversion and Repair

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ATTACHMENT A

DESCRIPTION OF ANALYSIS OF NAVAL BASES

The Naval Bases subcategory includes those activities that have a principal mission to support, maintain, and train Navy ships and assigned crews. The following activities were evaluated in this subcategory:

Naval Air Station, North Island, California
Naval Station, San Diego, California
Submarine Base, San Diego, California
Submarine Base, New London, Connecticut
Submarine Base, Kings Bay, Georgia
Naval Activities, Guam
Naval Station, Pearl Harbor, Hawaii
Submarine Base, Pearl Harbor, Hawaii
Naval Station, Pascagoula, Mississippi
Naval Station, Roosevelt Roads, Puerto Rico
Naval Station, Ingleside, Texas
Amphibious Base, Little Creek, Virginia
Naval Station, Norfolk, Virginia
Submarine Base, Bangor, Washington
Naval Station, Everett, Washington

Data Call Development

The capacity data call was developed after a review and validation of the BRAC-93 principal measure of capacity: ship berthing capability. The capacity data call captured specific information on pier size and capabilities to support cold iron berthing of ships. Based on input from the fleet commanders, the questions on the maximum capacity of the piers for berthing were expanded to include normal loading, maximum capacity, maintenance support, ordnance loading, and dredging impact. The capacity data call also sought information on resources and facilities that support homeporting of ships, as well as shore-based ship intermediate maintenance facilities, base infrastructure, acreage, and investment. Shore-based training assets of the base, including tenant commands, were captured using a standard module of questions that measured capacity in terms of student throughput.

The military value data call was developed after review of the BRAC-93 data calls and discussions with technical experts at the fleet concentration centers. It emphasized data elements relating to factors such as access to the open sea and fleet operating areas. Questions on historic and planned capital improvements were designed

to differentiate expenditures from prior BRAC realignments. Historic capital improvements from FY 1988 were included. These questions were incorporated as a standard module to be included in all military value data calls. The quality of life questions used came from the standard module. Other military value questions captured environmental issues (including dredging burden) and weather impact on operations and maintenance.

Capacity Analysis

Lessons learned from prior rounds indicated that a standard measure was needed to aggregate and balance differing capabilities among bases for the cold iron berthing of ships. The "Cruiser Equivalent" (CG-E) berthing concept from BRAC-93 was retained, but the CG-E factor for individual ship classes was refined to take into consideration such things as space and power requirements. Modifications to the CG-E for specific ship classes reflected the desire for a more conservative estimate of berthing demand. This conservatism was prudent because of the closer tolerances at Naval Stations after the significant prior BRAC closures and the aggressive deployment factor used in capacity analysis. The capability of each base for ship berthing was taken from certified data responses that indicated the maximum capacity of each pier for cold iron berthing based on the current mix of ships homeported at the base. These indicated capacities were then reviewed and validated. When necessary, questions were raised and resolved with major claimant activities. The percent of time in port for each ship class was modified slightly from the BRAC-93 values based on deployment schedules. The composite berthing requirement was based on the interim force structure plan, with the fleet mix based on the FY 1995 President's Budget's Ship and Aircraft Supplemental Data Tables (SASDT). The analysis revealed 31 percent excess capacity, and the BSEC directed a military value analysis be conducted.

Military Value Analysis

The matrix developed for military value analysis was modeled on the prior round naval station matrix, with modifications based on lessons learned, fleet input, and matrices previously approved by the BSEC. The environment, encroachment and expansion and the quality of life questions were taken from the BSEC-approved Training Air Station matrix with only minor modifications. Quality of life matrix differences principally reflected the significantly different size between Naval Bases and Training Air Stations and the difference in the active duty populations of Naval Bases and Training Air Stations.

Operational infrastructure questions were designed to capture the size and versatility of a base for cold iron berthing of navy ships. Active duty population support areas were also considered an operational infrastructure issue. Fiscal aspects of the base as well as infrastructure size and condition captured in the military value data call were covered in the infrastructure and investment area. Maintenance considerations covered

shore based maintenance support at the base and in the area. Availability of ordnance and logistic support and the amount of logistic support the base provides to others were the measures of logistics military value. Operational factors included unique missions, climate, geographic, or strategic considerations as well as access to the sea. The training area included access to land based and sea based training assets.

Question weights developed by the BSEC placed high value on operational infrastructure and training. Quality of life considerations had more importance in Naval Bases than other areas reviewed by the BSEC because of the large active duty population served. The military value scores for the activities in the Naval Bases subcategory were fairly evenly distributed between 42.3 and 65.4, out of a possible 95.99 points. Large, versatile bases and those in close proximity to underway training areas scored higher, while smaller bases which were remote from fleet training areas scored significantly lower.

Configuration Analysis

Configuration analysis used a linear programming model to develop solutions that minimized excess capacity while maintaining an average military value at least as great as the current average for all Naval Bases. The model's parameters consisted of the force levels and mix for the Atlantic and Pacific fleets based on the interim force structure plan and the SASDT. Ship and naval station characteristics used in the capacity analysis were also included as parameters. The two rules built into the configuration model were that average military value of the naval stations left open must be at least equal to the average military value of all naval stations considered and that all mine warfare ships must be sited at a dedicated center of excellence, which could be any Atlantic or Pacific fleet naval station. Several ship classes require special consideration for berthing and support and so were placed in the model in ports that are configured to accommodate them. CV/CVNs were sited in Norfolk, Mayport, Everett, and North Island. SSBNs were placed in Kings Bay and Bangor. The AEs and AOEs were placed at Naval Weapons Stations and were not considered further in the model. Military Sealift Command (MSC) ships were not placed by the model. They were deducted from both the ship load for assignment and the capacity of any naval station currently homeporting any MSC ships. Thus, if a naval station with MSC ships remained open, these ships retained their berthing. If the station closed, another port, outside the model, would be required for these ships.

The configuration model primary solution suggested closure of six naval stations: SUBASE New London, PHIBASE Little Creek, SUBASE San Diego, SUBASE Pearl Harbor, NAVSTA Roosevelt Roads, and Naval Activities (NAVACTS, formerly NAVSTA) Guam. The second solution substituted NAVSTA Pearl Harbor for SUBASE Pearl Harbor. The third solution closed SUBASE New London, PHIBASE Little Creek, SUBASE Pearl Harbor, NAVSTA Pearl Harbor, and NAVSTA Roosevelt Roads. The

excess capacity remaining after the configuration solutions ranged from 1.5 to 3.75 cruiser equivalents.

As a check on the capacity measures, the BSAT evaluated specific ship berthing support requirements such as draft, beam, length, and shore power requirements in feasibility analyses conducted on each of the model solutions. Each solution was verified by the use of another linear programming model which verified the operational feasibility of the configuration model outputs. This analysis required the removal of SUBASE Pearl Harbor from the list of potential closure candidates in order to accommodate the FY 2001 force structure.

Scenario Development and Analysis

The results of configuration analysis provided the BSEC with a starting point for deliberations leading to Naval Bases scenario development. While reviewing potential scenarios, the BSEC expressed concern over the in port percentage assumed for amphibious ships. The capacity analysis had assumed a 50 percent in port percentage for amphibious ships and 67 percent in port ratio for surface combatants. Although these differences are characteristic of the current high tempo of operations experienced by amphibious ships, the BSEC felt that it was unwise to assume that the high tempo would continue indefinitely. Changing the amphibious ship in port requirements would result in the requirement to berth 13 to 14 additional CG equivalents. With this in mind, the BSEC focused on the initial model solution. If the increased berthing requirements associated with the revision in the amphibious ship operational tempo were assumed, it was noted that there would only be three CG equivalents of excess space even if SUBASE Pearl Harbor remained open.

The closure of NAVSTA Roosevelt Roads was removed from consideration because of expression from the CNO and CINCLANTFLT about the value of its location and training capabilities. However, to have a clear understanding of the operational impacts and costs associated with the other actions, the BSEC issued COBRA scenario data calls for the closure of waterfront operations at SUBASE New London, with all submarines moving to NAVSTA Norfolk; closure of the ship pier operations at PHIBASE Little Creek with amphibious ships moving to NAVSTA Norfolk; closure of SUBASE San Diego with submarines moving to SUBASE Pearl Harbor and the tender remaining in San Diego; and the closure of unneeded facilities at NAVACTS Guam while retaining access to the existing pier facilities.

The CNO, CINCLANTFLT, and CINCPACFLT all stressed the need to maintain a degree of operational flexibility in the basing of combatant ships. In its review of the Naval Bases COBRA analyses, the BSEC not only scrutinized the costs and savings of the alternatives, but also evaluated the potential for operational impacts and restrictions which ran counter to this expression. The COBRA analysis for SUBASE San Diego was skewed by the budget decision not to fund the base beyond FY 1997. Although the

analysis showed an immediate return on investment, SUBASE San Diego was removed from further consideration, based on CINCPACFLT's stated need for a submarine base in close proximity to the Pacific Fleet's major carrier port in San Diego and the need to preserve operational flexibility in the Pacific.

The SUBASE New London COBRA results had an early return on investment, but very high one-time costs associated with movement of submarines and operational staffs to NAVSTA Norfolk and some surface combatants from NAVSTA Norfolk to NAVSTA Mayport to accommodate this relocation. The BSEC considered CINCLANTFLT's view that the planned decommissioning of most of the submarine tenders at Norfolk increased the value to the Navy of the shore-based maintenance facilities in New London. These factors and the need to maintain a level of operational flexibility in the Atlantic Fleet led to removal from consideration of the closure of the waterfront facilities at New London.

COBRA analyses for the closure of the ship piers at NAVPHIBASE Little Creek assumed, first, that the prior SUBASE New London closure scenario does not occur and therefore no movement of ships from NAVSTA Norfolk to NAVSTA Mayport is required, and, second, that the SUBASE New London waterfront does close. Both scenarios move the amphibious ships and their associated operational staffs to NAVSTA Norfolk, and both demonstrate reasonable costs and savings. The major difference between the two scenarios is the requirement to relocate surface combatants to NAVSTA Mayport if both the Little Creek and New London piers were to close. The BSEC considered the CNO's intention to halt the planned decommissioning of fifteen additional surface combatants and to retain them in the active force, which would reduce the excess capacity in the Atlantic Fleet to less than ten CG equivalents. Because of concerns that the net return from the closure of the ship piers at PHIBASE Little Creek was too small to justify the reduction in capacity and flexibility to such a low level, the BSEC removed PHIBASE Little Creek from further consideration.

The COBRA analysis for realignment of NAVACTS Guam showed significant savings over a twenty year period, despite large one-time costs, arising principally from moving the MSC ships from Guam to NAVSTA Pearl Harbor and NAVMAG Lualualei and the military construction refurbishment both for the relocations to Hawaii and for the activities that will remain on Guam as tenants of other naval activities. Review of strategic and operational basing concerns in Guam with the senior DON leadership led to the conclusion that ship homeporting capability in Guam need not be retained so long as DON retains access to Guam.

Conclusion

The Naval Bases subcategory excess capacity was ill-suited for closure. Prior rounds of base closure had already closed two major fleet concentrations, and the remaining excess capacity is largely located in the remaining fleet concentrations. The calculated excess capacity was also very stringent, assuming significant numbers of ships

would be underway and not require berthing. While the configuration analysis solutions eliminated almost all of the excess capacity for cold iron berthing of naval ships, these too were based on extreme parameters which created an unrealistically large closure list. Given the need for some excess capacity to accommodate changes in the number of ships, the number of ships in port, or the available berthing, no additional homeports were recommended for closure. The MSC presence at NAVACTS Guam was realigned, retaining the pier assets for access by Western Pacific ships, but saving the significant costs associated with homeport infrastructure.

ATTACHMENT A-1

RECOMMENDATION FOR REALIGNMENT

NAVAL ACTIVITIES, GUAM

Recommendation: Realign Naval Activities Guam. Relocate all ammunition vessels and associated personnel and support to Naval Magazine, Lualualei, Hawaii. Relocate all other combat logistics force ships and associated personnel and support to Naval Station, Pearl Harbor, Hawaii. Relocate Military Sealift Command personnel and Diego Garcia support functions to Naval Station, Pearl Harbor, Hawaii. Disestablish the Naval Pacific Meteorology and Oceanographic Center-WESTPAC, except for the Joint Typhoon Warning Center, which relocates to the Naval Pacific Meteorology and Oceanographic Center, Pearl Harbor, Hawaii. Disestablish the Afloat Training Group-WESTPAC. All other Department of Defense activities that are presently on Guam may remain either as a tenant of Naval Activities, Guam or other appropriate naval activity. Retain waterfront assets for support, mobilization, and contingencies and to support the afloat tender.

Justification: Despite the large reduction in operational infrastructure accomplished during the 1993 round of base closure and realignment, since DON force structure experiences a reduction of over 10 percent by the year 2001, there continues to be additional excess capacity that must be eliminated. In evaluating operational bases, the goal was to retain only that infrastructure necessary to support the future force structure without impeding operational flexibility for deployment of that force. Shifting deployment patterns in the Pacific Fleet reduce the need for a fully functional naval station. Operational and forward basing considerations require access to Guam. However, since no combatant ships are homeported there, elimination of the naval station facilities which are not required to support mobilization and/or contingency operations allows removal of excess capacity while retaining this necessary access.

Return on Investment: The total estimated one-time cost to implement this recommendation is $93.1 million. The net of all costs and savings during the implementation period is a savings of $66.3 million. Annual recurring savings after implementation are $42.5 million with a return on investment expected in one year. The net present value of the costs and savings over 20 years is a savings of $474.3 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 3359 jobs (2421 direct jobs and 938 indirect jobs) over the 1996-to-2001 period in the Agana, Guam economic area, which is 5.0 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease

equal to 10.6 percent of employment in the economic area. It should be recognized, however, that a major segment of these jobs is attributable to crews of the Military Sealift Command ships, whose presence on the island is sporadic in any given year.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of a portion of Naval Activities, Guam will have a generally positive effect on the environment because of the elimination of permitted stationary sources of air emissions associated with naval operations. In addition, the removal of military activity in areas occupied by threatened/endangered species and wetlands contributes positively to the environment. Sufficient unrestricted land is available for expansion at each of the receiving sites, and adequate capacity exists in their environmental facilities (such as water treatment and wastewater treatment plants) to handle the increases in personnel attendant to this closure.

ATTACHMENT B

DESCRIPTION OF ANALYSIS OF MARINE CORPS BASES

The primary mission of Marine Corps Bases (MCBs) is to house, support, and provide training areas for the operating forces of the Fleet Marine Force (FMF). This subcategory consisted of the newly formed MCB Hawaii; MCB Camp Lejeune, North Carolina; and MCB Camp Pendleton, California. MCB Hawaii includes a Marine Corps air facility which was also analyzed within the Operational Air Stations subcategory for both capacity and military value.

Data Call Development

The capacity data call was developed after a review of the BRAC-93 data call, and questions were refined to enhance the analytic process. The capacity data call was designed to capture the capacity and requirements in the following major areas: maintenance, open storage and covered storage, training ranges, barracks space, and administrative spaces. In addition to the original and revised questions, standard modules were incorporated dealing with housing and messing, base infrastructure, financial information, maintenance and repair, and ordnance. Technical experts from the Fleet and Headquarters, Marine Corps, were brought in to review and validate the data call prior to its issuance.

The military value data call was also developed based on a review of the BRAC-93 data call. The key subject areas for military value were mission suitability, facilities, features and capabilities, and location. A number of questions dealt with restrictions on use of beaches, airspace, and live fire areas and with the use of training areas for major exercises. The previously approved standard modules on historic and future investment, quality of life, and environment were included in this data call. Additional questions were asked to capture all features necessary in analyzing a MCB. To ensure completeness and appropriateness, this data call was also reviewed by technical experts.

Capacity Analysis

The measures used in the capacity analysis were maintenance space, covered storage space, barracks, messing and administrative space. Although there was excess capacity in each of the five areas, ranging from 6 percent to 22 percent, it was distributed such that consolidations, closures or realignments were infeasible. No base had excess capacity in all areas, and no base had sufficient capacity in each area to absorb the requirements of any potential closure/realignment scenario. This conclusion follows from the facts that each base is geographically located to support the FMF mission and that the

Marine Corps' force structure for BRAC-95 is greater than that which was considered in BRAC-93. Consequently, the BSEC determined that there was insufficient excess capacity to warrant further evaluation of the Marine Corps Bases subcategory.

ATTACHMENT C

DESCRIPTION OF ANALYSIS OF OPERATIONAL AIR STATIONS

The Operational Air Station subcategory includes those DON activities that have a principal mission to home port, support, provide training facilities, and operate a base from which operational and training missions can be flown by Navy and Marine Corps aircraft squadrons. Lessons learned from prior base closure rounds indicated that in addition to Naval Air Stations and Marine Corps Air Stations, the list of activities for review should include bases that contain an air facility and/or have squadrons assigned, such as Marine Corps Base Hawaii. The following activities were included in this subcategory:

Naval Air Facility, Adak, Alaska
Marine Corps Air Station, Yuma, Arizona
Marine Corps Air Station, Camp Pendleton, California
Naval Air Facility, El Centro, California
Naval Air Station, Lemoore, California
Naval/Marine Corps Air Station, Miramar, San Diego, California
Naval Air Station, North Island, San Diego, California
Naval Air Station, Jacksonville, Florida
Naval Air Station, Key West, Florida
Naval Station, Mayport, Florida
Marine Corps Base Hawaii, Kaneohe, Hawaii
Naval Air Station, Brunswick, Maine
Naval Air Station, Fallon, Nevada
Marine Corps Air Station, Cherry Point, North Carolina
Marine Corps Air Station, New River, Jacksonville, North Carolina
Naval Station, Roosevelt Roads, Puerto Rico
Marine Corps Air Station, Beaufort, South Carolina
Naval Air Station, Norfolk, Virginia
Naval Air Station, Oceana, Virginia Beach, Virginia
Naval Air Station, Whidbey Island, Oak Harbor, Washington

NAS Fallon, NAS Key West, NAF El Centro, NS Roosevelt Roads and MCAS Yuma were included in the Operational Air Station subcategory rather than the Training Air Station subcategory because their primary mission is fleet support training rather than undergraduate pilot training.

Data Call Development

The capacity and military value data calls were developed after a review of the BRAC-93 data calls and expansion of the questions to allow for more thorough analysis with respect to required and available infrastructure. The capacity data call measured the ability to house aviation squadrons and units while properly maintaining the aircraft, providing ample airfield operating resources and training infrastructure, and ensuring sufficient support facilities.

The principal measure of capacity for these activities was the "squadron module," defined as the hangar space, line space, administrative space, and maintenance space required to house one aircraft squadron. The amount of space required for a squadron module varies based on the number and type of aircraft in that squadron. For instance, a squadron with large shore-based aircraft (such as P-3s) or one with a larger complement of officers and enlisted personnel (e.g., a Fleet Replacement Squadron) would require more square feet of space than would an F/A-18 squadron with its smaller carrier-based aircraft and fewer personnel.

Because hangar space is dependent upon the kinds of aircraft to be housed in a particular hangar, the capacity data call also distinguished between hangar types. A Type I hangar, which is built to house the smaller carrier-based aircraft, generally has smaller dimensions and, more importantly, lower door height clearance. A Type II hanger has the physical dimensions, including door height clearance, required to house larger aircraft.

Other capacity measures (such as utilities, number of aircraft operations per hour, training and maintenance space, etc.) determined station resources supporting the primary measure of capacity. Additional questions captured what portion of operations were attributable to joint and civilian use, support provided to transient aircraft, squadron laydown requirements, current and potential apron parking and hangar use and capacity by module. Other questions came from standard modules for a particular subject area (e.g., pier capacity and capabilities, messing, quality of life, infrastructure, acreage and investment, and ordnance).

The military value data call assessed key operational assets such as training ranges, airspace, and outlying/auxiliary fields. These were augmented with the station's demonstrated support to assigned units, other DoD components, and the community. Other less obvious factors were also assessed, such as the impact of weather on training evolutions. Questions concerning community encroachment and environmental restrictions were asked to determine if these problems would reduce future mission capability of the air station. Finally, standard modules were used to assess past investment in the air station infrastructure and current quality of life.

Capacity Analysis

The combination of the number of squadron modules and the type of hangars aboard the air station defines its capacity. Using the number of squadrons projected to be assigned to the air station in FY 2001 (based on the interim force structure plan and the Ships and Aircraft Supplemental Tables (SASDT)) and projected deployment cycles, the amount of excess capacity for the station was calculated by comparing the total number of squadron modules available to the total number of squadrons to be housed at all stations. When measured as a part of Total Force capacity, both Operational Air Stations and Reserve Air Stations showed excess capacity. Because the number of available squadron modules when compared to the number of squadrons in the FY 2001 force structure resulted in an excess capacity of 22 percent, the BSEC directed a military value analysis be conducted.

Military Value Analysis

Although the military value data calls were the same for both the Operational and Reserve Air Stations subcategories, the military value analysis done for Operational Air Stations was expanded in areas of particular concern to the active community (e.g., ship berthing) and reduced in areas of more concern to the reserve force (e.g., demographics). Key areas in the military value assessment were training ranges/airspace and air station facilities/infrastructure. Other areas included expansion, encroachment and environment; quality of life; airfield maintenance and unique facilities; military/general and support missions; training capabilities; and baseloading. The BSEC considered near term readiness to be more important for Operational Air Stations than mobilization (the reverse being true for Reserve Air Stations) and weighted the criteria accordingly.

The scores for the twenty Operational Air Stations ranged from a low of 30.82 to a high of 82.90 (out of a possible 95.92 points). The scores of all of the Operational Air Stations were evenly distributed throughout this range, except for NAF Adak which scored very low due largely to the lack of training areas and facilities. This ranking is consistent with the fact that NAF Adak no longer supports operational aviation units.

Configuration Analysis

Configuration analysis used a linear programming model to develop solutions that minimized excess capacity while maintaining at least an average military value. The model's parameters consisted of the Atlantic and Pacific force levels and mix for Navy squadrons, Marine squadrons, and all Reserve squadrons currently at active air stations, based on the interim force structure plan and the SASDT. Aircraft and air station characteristics such as hangar modules and homeport load factors which were used in the capacity analysis were also included as parameters. The model minimizes excess capacity by fitting the Atlantic and Pacific fleet squadrons efficiently into the squadron modules available at their respective fleet air stations. Reserve squadrons were allowed to be

assigned to air stations in either fleet. The two rules built into the configuration model are that average military value of air stations left open must be at least equal to the average military value of all air stations considered and that the introduction of aircraft types not currently aboard a station is not allowed.

The first solution left thirteen air stations open and closed seven. Those closed are Brunswick, Beaufort, Mayport, Key West, Roosevelt Roads, Adak, and El Centro. The second best solution differs from the first only in that El Centro, with only one module, is not closed. The third best solution differs only in that El Centro is again closed and Key West, with only three modules, is left open. Thus, there was no substantial difference between these solutions.

Scenario Development and Analysis

The BSEC used the results of the configuration analysis as a starting point for scenario development and directed the release of COBRA scenario data calls that closed four active air stations (NAF Adak, NAS Brunswick, NAS Key West, and MCAS Beaufort). Based on the COBRA analyses, the NAS Key West and MCAS Beaufort scenarios were rejected because of operational considerations, high one-time costs, and a long period before return on investment is achieved, while NAF Adak was accepted for closure. Given the excess capacities indicated, the BSEC examined a differing approach to eliminating excess capacity which would forego building new capacity in lieu of eliminating existing capacity.

The next series of Operational Air Station scenarios then focused on redirects of BRAC-93 laydowns rather than additional closures. Review of the COBRA data in response to the first set of data calls led to the determination that, in lieu of closing an additional air base, it might be more productive to use available assets and to avoid investing in new capacity through the construction required to implement BRAC-93 decisions. COBRA scenario data calls were issued to change the receiving sites for the NAS Cecil Field assets and the NAS Miramar assets. Alternative receiving sites were identified by both the BSEC and the Fleet Commanders-in-Chief (CINCs), and COBRA analyses were conducted on each scenario. This iterative process assisted the BSEC in identifying and evaluating options which resulted in significant cost avoidances and in increased operational effectiveness. The East Coast alternative ultimately adopted by the BSEC sent the NAS Cecil Field F/A-18s to NAS Oceana and MCAS Beaufort vice MCAS Cherry Point. The NAS Cecil Field S-3s were sent to NAS Jacksonville vice NAS Oceana, where they can be collocated with other aviation anti-submarine warfare assets. The USN/USMC Reserve F/A-18s were directed to NAS Atlanta vice MCAS Beaufort, to take advantage of Reserve demographics. On the West Coast, the NAS Miramar F-14s were single sited at NAS Oceana, rather than moved to NAS Lemoore, and the E-2s were sent to NAS North Island vice NAS Lemoore. It was the BSEC's determination that significant cost avoidances could be achieved at MCAS Cherry Point and NAS Lemoore through cancellation of budgeted military construction and fuller

utilization of existing capacity at other receiving sites. These cost avoidances in effect are equivalent to the infrastructure cost of a major new tactical aviation base.

While the COBRA analysis on the closure of NAS Brunswick showed a reasonable return on investment, the BSEC considered the operational requirement expressed by the CINC, Atlantic Fleet (CINCLANTFLT), for a fully-capable operational air station north of Norfolk, Virginia. In order to reduce excess capacity while preserving the operational capability at NAS Brunswick, the BSEC investigated the feasibility of closing the Reserve Air Station at South Weymouth. NAS Brunswick is a significantly more capable air station than South Weymouth because of its dual 8000 foot runways; more extensive, recently built aviation support infrastructure; and flight operations unconstrained by civilian air traffic. Its geographic proximity to strategic maritime patrol areas lends itself well to supporting both active and Reserve tactical and training missions. Review of the capacity analysis for both Operational and Reserve Air Stations and Reserve demographic analysis revealed that NAS Brunswick could absorb the Reserve mission from NAS South Weymouth without an adverse effect on demographics or Reserve recruiting. Therefore, excess capacity was reduced, and greater operational capability, flexibility, and interoperability were retained, by closing NAS South Weymouth and retaining NAS Brunswick as a receiving site for the aviation assets from NAS South Weymouth.

Because of the continued requirement for a robust training capability on the East Coast, due in part to the realignment of the aviation force basing, NAS Key West was converted to a Naval Air Facility (NAF). This conversion vice closure avoids the loss of an irreplaceable training asset and capability (whose retention was strongly urged by CINCLANTFLT) and reduces operational costs through consolidation of services and excessing of under-utilized assets. Similarly, the movement of the E-2s to NAS North Island better utilizes the North Island facilities. However, additional savings were identified if military construction costs relating to the relocation of mine warfare helicopters to NAS North Island from NAS Alameda could be avoided. The realignment of NAS Corpus Christi to an NAF and the attendant movement of pilot training elsewhere opens up capacity which could be utilized to accept those helicopters in support of the Mine Warfare Center of Excellence at Naval Station, Ingleside.

Scenario development data calls were issued for the redirect of HMT-302 (the USMC H-53E RAG) from MCAS Tustin to MCAS New River; HMH-363 (the only CONUS H-53D squadron) from Tustin to MCAF Kaneohe Bay; and all Guam aviation assets to locations that provide the best support and/or collocation with the West Coast units they operate from or provide support to. The COBRA analysis for each of these scenarios showed that they were operationally sound, fiscally responsible, and removed subsequent problems that the specificity of complex aviation moves of BRAC-93 had created. Finally, the BSEC approved a redirect to retain family housing support facilities at NAS Barbers Point, Hawaii, in support of multi-service quality of life.

Conclusion

The continued decrease in active air wings and in cold war deployment tempo allowed additional closure recommendations to be considered. The BRAC-95 process focused more closely on immediate returns on investment resulting from prudent fiscal and resource management. The principal methodology for savings in the Operational Air Stations subcategory was to use the further reductions in force levels from the BRAC-93 round to redirect aviation assets to fully utilize existing infrastructure and to avoid planned new construction required to implement the prior round. Elimination of new construction equal to the plant value and infrastructure of a complete tactical air base was achieved. The maritime patrol operational tempo reduction and overall force reduction allowed the closure of NAF Adak which is no longer used for any mission and the realignment of NAS Key West to an air facility.

ATTACHMENT C-1

RECOMMENDATION FOR CLOSURE

NAVAL AIR FACILITY, ADAK, ALASKA

Recommendation: Close Naval Air Facility, Adak, Alaska.

Justification: Despite the large reduction in operational infrastructure accomplished during the 1993 round of base closure and realignment, since DON force structure experiences a reduction of over 10 percent by the year 2001, there continues to be additional excess capacity that must be eliminated. In evaluating operational bases, the goal was to retain only that infrastructure necessary to support the future force structure without impeding operational flexibility for deployment of that force. In the case of Naval Air Facility, Adak, Alaska, the Navy's anti-submarine warfare surveillance mission no longer requires these facilities to base or support its aircraft. Closure of this activity reduces excess capacity by eliminating unnecessary capabilities and can be accomplished with no loss in mission effectiveness.

Return on Investment: The total estimated one-time cost to implement this recommendation is $9.4 million. The net of all costs and savings during the implementation period is a savings of $108 million. Annual recurring savings after implementation are $26 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $354.8 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 894 jobs (678 direct jobs and 216 indirect jobs) over the 1996-to-2001 period in the Aleutians West Census Area economic area, which is 10.4 percent of economic area employment. However, the geography of the Aleutian Islands localizes economic effects, and no loss is anticipated from the closure of NAF Adak beyond the direct job loss.

Community Infrastructure Impact: There is no community infrastructure impact since there are no receiving installations for this recommendation.

Environmental Impact: The closure of Naval Air Facility, Adak will have a positive effect on the environment in that, even though NAF Adak is in an attainment area for CO, ozone, and PM-10, a source of ozone will be removed, further improving already favorable air quality. In an area with few air emission sources present, cessation of air emissions from this facility will enhance the natural state of the western Alaska region. Also, there is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

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ATTACHMENT C-2

RECOMMENDATION FOR REALIGNMENT

NAVAL AIR STATION, AGANA, GUAM REDIRECT

Recommendation: Change the receiving site specified by the 1993 Commission (1993 Commission Report, at page 1-21) for "the aircraft, personnel, and associated equipment" from the closing Naval Air Station, Agana, Guam from "Andersen AFB, Guam" to "other naval or DoD air stations in the Continental United States and Hawaii."

Justification: Other BRAC-95 actions recommended the partial closure of Naval Activities, Guam, with retention of the waterfront assets, and the relocation of all of the vessels currently homeported at Naval Activities, Guam to Hawaii. Among the aircraft at Naval Activities, Guam is a squadron of helicopters performing logistics functions in support of these vessels. This redirect would collocate these helicopters with the vessels they support. Similarly, regarding the other aircraft at the closing Naval Air Station, the Fleet Commander-in-Chief desires operational synergies for his surveillance aircraft, which results in movement away from Guam. This redirect more centrally collocates those aircraft with similar assets in Hawaii and on the West Coast, while avoiding the new construction costs required in order to house these aircraft at Andersen Air Force Base, Guam, consistent with the Department's approach of eliminating capacity by not building new capacity.

Return on Investment: The total estimated one-time cost to implement this recommendation is $43.8 million. The net of all costs and savings during the implementation period is a savings of $213.8 million. Annual recurring savings after implementation are $21.7 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $418 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 1641 jobs (1272 direct jobs and 369 indirect jobs) over the 1996-to-2001 period in the Agana, Guam economic area, which is 2.5 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 10.6 percent of employment in the economic area. However, much of this impact involves the inclusion of MSC mariners in the job loss statement, which does not reflect the temporary nature of their presence on Guam.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The Guam Air Pollution Control District is in attainment for CO, ozone, and PM-10. Relocation of these aviation assets will remove a source of air emissions thus enhancing the air quality of Guam. Both NAS Whidbey Island and MCB/MCAF Hawaii are in an attainment area for CO, ozone, and PM-10, and thus this relocation will not require a conformity determination. NAS North Island, on the other hand, is in an area which is in moderate non-attainment for CO and severe non-attainment for ozone. Thus, a conformity determination may be required to evaluate the impact on air quality. Plans to disestablish current active squadrons support the ability to obtain a conformity determination. Adequate utility support and undeveloped property for expansion exist at NAS North Island. Similarly, at NAS Whidbey Island, force downsizing over the next six years will be in excess of the additional personnel and aircraft from this action. There will be no adverse impact to threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT C-3

RECOMMENDATION FOR REALIGNMENT

NAVAL AIR STATION, ALAMEDA, CALIFORNIA REDIRECT

Recommendation: Change the receiving sites specified by the 1993 Commission for the closure of Naval Air Station, Alameda, California (1993 Commission Report, at page 1-35) for "aircraft along with the dedicated personnel, equipment and support" and "reserve aviation assets" from "NAS North Island" and "NASA Ames/Moffett Field," respectively, to "other naval air stations, primarily the Naval Air Facility, Corpus Christi, Texas, to support the Mine Warfare Center of Excellence, Naval Station, Ingleside, Texas."

Justification: The decision to collocate all mine warfare assets, including air assets, at the Mine Warfare Center of Excellence at Naval Station, Ingleside, Texas, coupled with the lack of existing facilities at Naval Air Station, North Island, support this movement of mine warfare helicopter assets to Texas. With this collocation of assets, the Navy can conduct training and operations with the full spectrum of mine warfare assets from one location, significantly enhancing its mine warfare countermeasures capability. This action is also consistent with the Department's approach for other naval air stations of eliminating capacity by not building new capacity.

Return on Investment: The return on investment data below applies to the closure of NAS Meridian, the closure of NTTC Meridian, the realignment of NAS Corpus Christi to a NAF, and the NAS Alameda redirect. The total estimated one-time cost to implement these recommendations is $83.4 million. The net of all costs and savings during the implementation period is a savings of $158.8 million. Annual recurring savings after implementation are $33.4 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $471.2 million.

Impacts:

Economic Impact on Communities: Since this action affects unexecuted relocations resulting from prior BRAC recommendations, it causes no net change in employment in the San Diego, California MSA economic area. However, the anticipated small increase in the employment base in this economic area will not occur.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: This redirection involves only the relocation of the mine warfare helicopter assets (both active and reserve aircraft) to the Naval Air Facility,

Corpus Christi, Texas, in support of the Mine Warfare Center of Excellence at Naval Station, Ingleside, Texas, instead of to Naval Air Station, North Island, California. Therefore, this relocation will have a positive impact on the environment. The Corpus Christi area is in attainment for all of the major air pollutants, while the San Diego area is in severe non-attainment for ozone. The addition of these assets to the Corpus Christi area is not expected to have an impact on the environment. However, if a conformity determination is required to assess the impact of this move on the local air quality, one will be performed. There are no adverse impacts on threatened/endangered species, sensitive habitats and wetlands, or cultural/historic resources occasioned by this recommendation.

ATTACHMENT C-4

RECOMMENDATION FOR REALIGNMENT

NAVAL AIR STATION, BARBERS POINT, HAWAII REDIRECT

Recommendation: Change the recommendation of the 1993 Commission regarding items excepted from the closure of Naval Air Station, Barbers Point, Hawaii (1993 Commission, at page 1-19) from "Retain the family housing as needed for multi-service use" to "Retain the family housing as needed for multi-service use, including the following family housing support facilities: commissary facilities, Public Works Center compound with its sanitary landfill, and beach recreational areas, known as Nimitz Beach and White Plains Beach."

Justification: While specific mention was made of retention of family housing in the BRAC-93 recommendation relating to NAS Barbers Point, certain aspects conducive to supporting personnel in family housing were not specifically mentioned, which is required for their retention. Quality of life interests require either that these facilities be retained or that new ones be built to provide these services. Another advantage of retaining these facilities to support multi-service use is the avoidance of the costs of closing the existing landfill and either developing another one on other property on the island of Oahu or incurring the costs of shipping waste to a site off-island.

Return on Investment: The total estimated one-time cost to implement this recommendation is $37 thousand. The net of all costs and savings during the implementation period is a savings of $17.6 million. Annual recurring savings after implementation are $.1 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $18.4 million.

Impacts:

Economic Impact on Communities: This recommendation will not affect any jobs in the Honolulu, Hawaii MSA economic area.

Community Infrastructure Impact: There is no community infrastructure impact since there are no receiving installations for this recommendation.

Environmental Impact: The importance of this recommendation from the perspective of environmental impact is the retention of the existing landfill. Without this recommendation, the landfill would have to be closed and capped, and, until a replacement site is established, waste water treatment sludge, for instance, would have to be exported off-island for disposal. Further, by avoiding the need for new construction of facilities for the public works center compound and the commissary, this recommendation will eliminate any air emissions occasioned by such new construction

and the need to use scarce real property resources to replace these facilities. Also, there is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT C-5

RECOMMENDATION FOR REALIGNMENT

NAVAL AIR STATION, CECIL FIELD, FLORIDA REDIRECT

Recommendation: Change the receiving sites specified by the 1993 Commission (1993 Commission Report, at page 1-20) from "Marine Corps Air Station, Cherry Point, North Carolina; Naval Air Station, Oceana, Virginia; and Marine Corps Air Station, Beaufort, South Carolina" to "other naval air stations, primarily Naval Air Station, Oceana, Virginia; Marine Corps Air Station, Beaufort, South Carolina; Naval Air Station, Jacksonville, Florida; and Naval Air Station, Atlanta, Georgia; or other Navy or Marine Corps Air Stations with the necessary capacity and support infrastructure." In addition, add the following: "To support Naval Air Station, Jacksonville, retain OLF Whitehouse, the Pinecastle target complex, and the Yellow Water family housing area."

Justification: Despite the large reduction in operational infrastructure accomplished during the 1993 round of base closure and realignment, since DON force structure experiences a reduction of over 10 percent by the year 2001, there continues to be additional excess capacity that must be eliminated. In evaluating operational bases, the goal was to retain only that infrastructure necessary to support the future force structure without impeding operational flexibility for deployment of that force. This recommended redirect achieves several important aims in furtherance of current Departmental policy and operational needs. First, it avoids the substantial new construction at MCAS Cherry Point that would be required if the F/A-18s from NAS Cecil Field were relocated there, which would add to existing excess capacity, and utilizes existing capacity at NAS Oceana. This avoidance and similar actions taken regarding other air stations are equivalent to the replacement plant value of an existing tactical aviation naval air station. Second, it permits collocation of all fixed wing carrier-based anti-submarine warfare (ASW) air assets in the Atlantic Fleet with the other aviation ASW assets at NAS Jacksonville and NAVSTA Mayport and support for those assets. Third, it permits recognition of the superior demographics for the Navy and Marine Corps reserves by relocation of reserve assets to Atlanta, Georgia.

Return on Investment: The total estimated one-time cost to implement this recommendation is $66.6 million. The net of all costs and savings during the implementation period is a savings of $335.1 million. Annual recurring savings after implementation are $11.5 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $437.8 million.

Impacts:

Economic Impact on Communities: Since this action affects unexecuted relocations resulting from prior BRAC recommendations, it causes no net change in

current employment in the Craven and Carteret Counties, North Carolina economic area. However, the anticipated 7.5 percent increase in the employment base in this economic area will not occur.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The reallocation of Navy and Marine Corps aviation assets in this recommendation will have a generally positive impact on the environment, particularly on the air quality at Cherry Point, North Carolina, and Jacksonville, Florida. The introduction of additional aircraft and personnel to the Norfolk, Virginia, area is not expected to have an adverse impact on the air quality of that area since the net effect of moving these particular assets, when compared to the force structure reductions by FY 2001, is a reduction of personnel and aircraft from FY 1990 levels at this receiving activity. However, it is expected that conformity determinations will be required for the movements to NAS Oceana and NAS Atlanta. The utility infrastructure at each of the receiving sites is sufficient to handle the additional personnel. At none of the receiving sites will there be an adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT C-6

RECOMMENDATION FOR REALIGNMENT

MARINE CORPS AIR STATION, EL TORO, CALIFORNIA, AND MARINE CORPS AIR STATION, TUSTIN, CALIFORNIA REDIRECT

Recommendation: Change the receiving sites for "squadrons and related activities at NAS Miramar" specified by the 1993 Commission (1993 Commission Report, at page 1-18) from "NAS Lemoore and NAS Fallon" to "other naval air stations, primarily NAS Oceana, Virginia, NAS North Island, California, and NAS Fallon, Nevada." Change the receiving sites for MCAS Tustin, California, specified by the 1993 Commission from "NAS North Island, NAS Miramar, or MCAS Camp Pendleton" to "other naval air stations, primarily MCAS New River, North Carolina; MCB Hawaii (MCAF Kaneohe Bay); MCAS Camp Pendleton, California; and NAS Miramar, California."

Justification: This recommendation furthers the restructuring initiatives of operational bases commenced in BRAC-93 and also recognizes that the FY 2001 Force Structure Plan further reduced force levels from those in the FY 1999 Force Structure Plan applicable to BRAC-93. These force level reductions required the Department of the Navy not only to eliminate additional excess capacity but to do so in a way that retained only the infrastructure necessary to support future force levels and did not impede operational flexibility for the deployment of that force. Full implementation of the BRAC-93 recommendations relating to operational air stations would require the construction of substantial new capacity at installations on both coasts, which only exacerbates the level of excess capacity in this subcategory of installations. Revising the receiving sites for assets from these installations in this and other air station recommendations eliminates the need for this construction of new capacity, such that the total savings are equivalent to the replacement plant value of an existing tactical aviation naval air station. Further, within the context of the FY 2001 Force Structure Plan, the mix of operational air stations and the assets they support resulting from these recommendations provides substantial operational flexibility. For instance, the single siting of F-14s at Naval Air Station, Oceana, Virginia, fully utilizes that installation's capacity and avoids the need to provide support on both coasts for this aircraft series which is scheduled to leave the active inventory. This recommendation also permits the relocation of Marine Corps helicopter squadrons in the manner best able to meet operational imperatives.

Return on Investment: The total estimated one-time cost to implement this recommendation is $90.2 million. The net of all costs and savings during the implementation period is a savings of $293 million. Annual recurring savings after implementation are $6.9 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $346.8 million.

Impacts:

Economic Impact on Communities: Since this action affects unexecuted relocations resulting from prior BRAC recommendations, it causes no net change in current employment in either the San Diego MSA or the Kings County, California economic areas. However, the anticipated 10.9% increase in the Kings County employment base and the anticipated 0.1% increase in the San Diego employment base will not occur.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The relocation of Navy and Marine Corps aviation assets in this recommendation generally will have a positive impact on the environment, particularly on the air quality in the areas in which NAS Lemoore and MCAS Miramar are located. The introduction of additional aircraft and personnel to the Norfolk, Virginia, area is not expected to have an adverse impact on the air quality of this area in that the net effect of adding these aircraft and personnel, when compared to force structure reductions by FY 2001, is a reduction from FY 1990 levels. However, a conformity determination will be required that takes into account any impact these actions may have on the air quality of these areas. Further, the utility infrastructure at each receiving site has sufficient capacity to handle these additional personnel. There is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT C-7

RECOMMENDATION FOR REALIGNMENT

NAVAL AIR STATION, KEY WEST, FLORIDA

Recommendation: Realign Naval Air Station, Key West, Florida, to a Naval Air Facility and dispose of certain portions of Truman Annex and Trumbo Point (including piers, wharfs and buildings).

Justification: Despite the large reduction in operational infrastructure accomplished during the 1993 round of base closure and realignment, since DON force structure experiences a reduction of over 10 percent by the year 2001, there continues to be additional excess capacity that must be eliminated. In evaluating operational bases, the goal was to retain only that infrastructure necessary to support the future force structure without impeding operational flexibility for deployment of that force. In the case of NAS Key West, its key importance derives from its airspace and training ranges, particularly in view of other aviation consolidations. Full access to those can be accomplished by retaining a downsized Naval Air Facility rather than a large naval air station. This realignment disposes of the waterfront assets of this facility and retains both the airspace and the ranges under its control for continued use by the Fleet for operations and training.

Return on Investment: The total estimated one-time cost to implement this recommendation is $.4 million. The net of all costs and savings during the implementation period is a savings of $8.2 million. Annual recurring savings after implementation are $1.8 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $25.5 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 26 jobs (20 direct jobs and 6 indirect jobs) over the 1996-to-2001 period in the Monroe County, Florida economic area, which is 0.1 percent of economic area employment.

Community Infrastructure Impact: There is no community infrastructure impact since there are no receiving installations for this recommendation.

Environmental Impact: The realignment of NAS Key West to a Naval Air Facility has a minimal impact on the air quality of the local area, which is in attainment for CO, ozone, and PM-10. Since no aviation assets are being moved into or out of this facility, the reduction in personnel and the resultant commuter CO emissions will have a positive impact on the environment. Also, there is no adverse impact on

threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT D

DESCRIPTION OF ANALYSIS OF RESERVE AIR STATIONS

The mission of Reserve Naval Air Stations is to maintain a state of readiness and availability that allows rapid deployment to respond to crisis and wartime mobilization requirements and to provide peacetime contributory support to the fleet. The following activities were included in this subcategory:

Naval Air Station, Atlanta, Georgia
Naval Air Station, New Orleans, Louisiana
Naval Air Station, South Weymouth, Massachusetts
Naval Air Station, Willow Grove, Pennsylvania
Naval Air Station, Fort Worth, Texas
Naval Air Facility, Washington, DC

Data Call Development

Due to a similarity of missions, the same capacity data call was used to evaluate both Operational (active) and Reserve Air Stations. This capacity data call measured the ability to house aviation squadrons and units while properly maintaining the aircraft, providing adequate airfield operating resources and training infrastructure, and ensuring sufficient support facilities.

The principal measure of capacity for these activities in BRAC-93 was hangar and line space. In BRAC-95, this measure was refined and expanded to focus on the "squadron module" as the primary measure. A "squadron module" is defined as the hangar space, line space, administrative space, and maintenance space required to house one aircraft squadron. The amount of space required for a squadron module varies based on the number and type of airplanes in that squadron. For instance, a squadron with large shore-based aircraft (such as P-3s) and more officers and enlisted personnel would require more square feet of space than would an F/A-18 squadron with its smaller carrier-based aircraft and fewer personnel.

Because hangar space is dependent upon the kinds of aircraft to be housed in a particular hangar, the capacity data call also distinguished between hangar types. A Type I hangar, which is built to house the smaller carrier-based aircraft, generally has smaller dimensions and, most importantly, lower door height clearance. A Type II hanger has the physical dimensions, including increased door height clearance, required to house larger aircraft.

Other capacity measures (such as utilities, number of aircraft operations per hour, training and maintenance space, etc.) determined station resources supporting the primary measure of capacity. Many of these questions came from standardized question modules for a particular subject area. These standardized question modules were used in all data calls unless more detailed information was required.

Like the capacity data call, the military value data call was used for both the Operational and Reserve Air Stations subcategories. Among the elements used to determine a reserve air station's military value are the following: the ability to accommodate contingency, mobilization and future total force requirements; the availability and condition of land, facilities and associated airspace; the extent of training ranges, outlying and auxiliary fields, and airspace; and the quality of life for the personnel assigned to the air station. Other less obvious factors were also assessed, such as the impact of weather on training evolutions. Questions concerning community encroachment and environmental restrictions were asked to determine if these problems would reduce future mission capability of the air station. Finally, standard modules were used to assess past investment in the air station infrastructure and current quality of life.

Capacity Analysis

The combination of the number of squadron modules and the type of hangars aboard the air station define its capacity. Using the number of squadrons projected to be assigned to the air station in FY 2001 (based on the interim force structure plan and the Ships and Aircraft Supplemental Data Tables (SASDT)) the amount of excess capacity for the station was calculated by comparing the total number of squadron modules available to the total number of squadrons to be housed at all stations. When measured as a part of Total Force capacity, both Operational Air Stations and Reserve Air Stations showed excess capacity. Because the number of available squadron modules when compared to the number of squadrons in the FY 2001 force structure resulted in an excess capacity of 22 percent, the BSEC directed a military value analysis be conducted.

Military Value Analysis

Although the military value data calls were the same for both the Operational and Reserve Air Station subcategories, the military value analysis done for Reserve Air Stations was expanded in areas of particular concern to the reserve community (e.g., demographics) and reduced in areas of more concern to the active force (e.g., ship berthing). Key areas in the military value assessment were training ranges/airspace and air station facilities/infrastructure. Other areas included expansion, encroachment and environment; quality of life; airfield maintenance and unique facilities; military/general and support missions; training capabilities; and demographics. The BSEC considered mobilization to be more important for Reserve Air Stations than near term readiness (the reverse being true for Operational Air Stations) and weighted the criteria accordingly.

The scores for the six Reserve Air Stations ranged between 51.14 and 65.16 (out of a possible 96.53 points). The scores of all of the Reserve Air Stations, but for NAS Atlanta, were grouped very closely because of similarities in capabilities and infrastructure. NAS Atlanta ranked lowest, due largely to lack of warning areas within 100 nautical miles. However, NAS Atlanta is in one of the most demographically-rich recruiting areas in the country, which is a critical consideration for the reserve community.

Configuration Analysis

Configuration analysis was conducted using a linear programming model to develop solutions that minimized excess capacity while maintaining average military value. The model's parameters consisted of the force levels and mix for reserve squadrons based on the interim force structure plan and the SASDT. Aircraft and air station characteristics such as hangar modules and homeport load factors (100 percent for reserve forces) which were used in the capacity analysis were also included as parameters. The model minimizes excess capacity by fitting the Reserve squadrons efficiently into the squadron modules available at the Reserve Air Stations. The two rules built into the configuration model are that average military value of air stations left open must be at least equal to the average military value of all air stations considered and that only one administrative support-type squadron (e.g., C-9 or C-130) can be assigned to any station. Also, the two C-20 squadrons were placed at NAS Washington where they are required to support the DON. Only DON squadrons and hangars were accommodated in the model. Thus, neither the aircraft nor the hangar space required by other DoD components, Coast Guard, or Customs Service were included in the analysis. Additionally, reserve squadrons at DON Test and Evaluation facilities or non-DON activities were placed outside the model.

The first solution closed NAS Atlanta and kept the other five stations open. The second solution kept all six stations open. These results were driven by the requirement for Type II hangars that could not be fulfilled if more than one reserve air station was closed and by the distribution of military values with only NAS Atlanta being below the average military value.

Scenario Development and Analysis

The BSEC used the results of the configuration analysis as a starting point for scenario development and directed the release of COBRA scenario data calls investigating the closure of NAS Atlanta. In reviewing the COBRA analysis of these scenarios, it became clear that many of the alternative receiving sites considered were limited because of comparatively poor Reserve demographics. NAS Atlanta is in a demographically-rich area for Reserve aviation, in part because it is an airline hub and in part because of the growing Marine Reserve presence from the 1993 Reserve Air Station closures. This evaluation led the BSEC to consider fully utilizing the capabilities at NAS Atlanta as a

tenant aboard Dobbins Air Reserve Base. Accordingly, in the series of scenarios that focused on redirects of BRAC-93 laydowns arising from scenario analysis on Operational Air Stations, NAS Atlanta was used as a receiving site for Reserve assets.

The Operational Air Stations scenario analysis also gave rise to a scenario to close NAS South Weymouth as an alternative to closing NAS Brunswick. The Commander-in-Chief, Atlantic Fleet (CINCLANTFLT), expressed the desirability of having a fully-capable operational air station north of Norfolk, Virginia. However, NAS Brunswick was marked for closure by the initial configuration model output. NAS Brunswick is a significantly more capable air station because of its dual 8000 foot all-weather runways; more extensive, recently built aviation support infrastructure; and flight operations unconstrained by civilian air traffic. In conjunction with current and projected operational requirements and consistent with CINC perspectives, NAS Brunswick's geographic proximity to strategic maritime patrol areas lends itself well to supporting both the active and Reserve tactical and training missions. Capacity requirements for both Operational and Reserve Air Stations and Reserve demographic analysis revealed that NAS Brunswick could absorb the Reserve mission from NAS South Weymouth without an adverse effect on demographics or Reserve recruiting. Therefore, greater operational capability, flexibility, and interoperability were retained by closing NAS South Weymouth in lieu of NAS Brunswick.

Additionally, the BSEC considered the relocation of the Marine Corps Reserve Center which was a tenant affected by the closure of NAF Detroit in BRAC-93, directed to relocate to the Twin Cities, Minnesota, Reserve Center. Facilities at the Selfridge Air National Guard Base near Detroit meet their needs and satisfy demographic concerns. Location of this Reserve Center at Selfridge is consistent with the DoD objective to achieve multi-service use of facilities.

Conclusion

Given the large amount of excess capacity in Reserve Air Stations that was eliminated during BRAC-93 and the criticality of responsiveness to Reserve demographics, there were limited opportunities for closure of Reserve Air Stations in BRAC-95. Evaluation of Reserve Air Stations, and the basis for the decisions, rested on the interconnectivity between Reserve and Operational Air Stations in supporting the Total Force.

ATTACHMENT D-1

RECOMMENDATION FOR REALIGNMENT

NAVAL AIR FACILITY, DETROIT, MICHIGAN REDIRECT

Recommendation: Change the receiving site specified by the 1993 Commission (1993 Commission Report, at page 1-25) for the Mt. Clemons, Michigan Marine Corps Reserve Center, including MWSG-47 and supporting units, from "Marine Corps Reserve Center, Twin Cities, Minnesota" to "Air National Guard Base, Selfridge, Michigan."

Justification: In addition to avoiding the costs of relocating the reserve unit from this reserve center to Minnesota, this redirect maintains a Marine Corps recruiting presence in the Detroit area, which is a demographically-rich recruiting area, and realizes a principal objective of the Department of Defense to effect multi-service use of facilities.

Return on Investment: There are no one-time costs to implement this recommendation. The net of all costs and savings during the implementation period is a savings of $9.4 million. There are no annual recurring savings, and an immediate return on investment is obtained. The net present value of the costs and savings over 20 years is a savings of $9.3 million.

Impacts:

Economic Impact on Communities: Since this action affects unexecuted relocations resulting from prior BRAC recommendations, it causes no net change in current employment in the Minneapolis-St. Paul, Minnesota-Wisconsin MSA economic area. However, the anticipated small increase in the employment base in this economic area will not occur.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The collocation of MWSG-47 and supporting units to National Guard facilities permits this activity to remain in its present location. Both the Air National Guard Base, Selfridge and the closing Naval Air Facility Detroit are in the same Air Quality Control District. Therefore, there will be no air quality changes on account of this recommendation. The elimination of the transfer of this Reserve Center to NARCEN Twin Cities will have a positive effect on the air quality of the Minneapolis/St. Paul Air Quality Control District.

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ATTACHMENT D-2

RECOMMENDATION FOR CLOSURE

NAVAL AIR STATION, SOUTH WEYMOUTH, MASSACHUSETTS

Recommendation: Close Naval Air Station, South Weymouth, Massachusetts. Relocate its aircraft and necessary personnel, equipment and support to Naval Air Station, Brunswick, Maine. Relocate the Marine Corps Reserve support squadrons to another facility in the local area or to NAS Brunswick. Reestablish Naval Reserve Center, Quincy, Massachusetts, and change the receiving site specified by the 1993 Commission (1993 Commission Report, at page 1-64) for consolidation of Navy and Marine Corps Reserve Center, Lawrence, Massachusetts; Naval Reserve Center, Chicopee, Massachusetts; and Naval Reserve Center, Quincy, Massachusetts, from "NAS South Weymouth, Massachusetts" to "Naval Reserve Center, Quincy, Massachusetts."

Justification: As a result of the Base Closure and Realignment Commission's actions in BRAC-93, the Department of the Navy retained several naval air stations north of the major fleet concentration in Norfolk. Despite the large reduction in operational infrastructure accomplished during BRAC-93, the current Force Structure Plan shows a continuing decline in force levels from that governing BRAC-93, and thus there is additional excess capacity that must be eliminated. The major thrust of the evaluation of operational bases was to retain only that infrastructure necessary to support future force levels while, at the same time, not impeding operational flexibility for the deployment of that force. In that latter context, the Commander-in-Chief, U.S. Atlantic Fleet, expressed an operational desire to have as fully-capable an air station as possible north of Norfolk with the closest geographic proximity to support operational deployments. Satisfaction of these needs both to further reduce excess capacity and to honor CINCLANTFLT's operational imperative can best accomplished by the retention of the most fully capable air station in this geographic area, Naval Air Station, Brunswick, Maine, in lieu of the reserve air station at South Weymouth. Unlike BRAC-93, where assets from Naval Air Station, South Weymouth were proposed to be relocated to three receiving sites, two of which were geographically quite remote, and where the perceived adverse impact on reserve demographics was considered unacceptable by the Commission, this BRAC-95 recommendation moves all of the assets and supporting personnel and equipment less than 150 miles away, thus providing most acceptable reserve demographics. Further, the consolidation of several reserve centers at the Naval Reserve Center, Quincy, Massachusetts, provides demographics consideration for surface reserve assets. In addition, this recommendation furthers the Departmental preference to collocate active and reserve assets and personnel wherever possible to enhance the readiness of both.

Return on Investment: The total estimated one-time cost to implement this recommendation is $17.3 million. The net of all costs and savings during the implementation period is a savings of $50.8 million. Annual recurring savings after

implementation are $27.4 million with a return on investment expected in one year. The net present value of the costs and savings over 20 years is a savings of $315.2 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 1443 jobs (936 direct jobs and 507 indirect jobs) over the 1996-to-2001 period in the Essex-Middlesex-Suffolk-Plymouth-Norfolk Counties, Massachusetts economic area, which is 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 0.1 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NAS South Weymouth will have a positive effect on local air quality in that a source of VOC and NOX emissions will be removed from an area that is in severe non-attainment for ozone. NAS Brunswick is in an area that is in attainment for CO and PM-10 but is in moderate non-attainment for ozone, which may require a conformity determination to evaluate air quality impacts. However, it is expected that the additional functions, personnel, and equipment from this closure recommendation will have no significant impact on air quality and airfield operations at NAS Brunswick. Water supply and wastewater treatment services are provided to NAS Brunswick from off-base and are not limited by capacity. Also, there is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT E

DESCRIPTION OF ANALYSIS OF RESERVE ACTIVITIES

For the purposes of evaluation under BRAC-95, 286 Naval and Marine Corps Reserve Centers/Commands were reviewed. These centers or commands were broken down into five categories, based on commonality of mission, as follows:

Naval Reserve Centers. One hundred eighty-one installations were analyzed in the general category of Naval Reserve Centers. Included in this group were Navy and Marine Corps Reserve Centers, Naval Reserve Centers, Naval Reserve Facilities, and Naval Reserve Activities at Armed Forces Reserve Centers. The general mission of these installations is to provide trained units and qualified individuals for active duty in time of war or national emergency and at such times as the national security requires. The centers provide classrooms, audiovisual equipment, library resources, and qualified instructors to assist in training Reservists. Reserve Center personnel provide maintenance and updates of Reservists' service records, provide manpower and personnel computer updates, identification cards and benefit qualification resources for Reservists, as well as family member support during time of mobilization. In addition, the centers provide maintenance and updates of Reservists' medical and dental records, physicals, HIV testing, and physical readiness testing. Also, personnel provide specific training as required by each Reservist's billet and measure each Reservist's qualification to fill his assigned billet in time of national emergency or war. These training personnel schedule equipment and provide qualified instructors to meet the center's population training needs. The center support staff also provides the logistical needs of drilling reservists such as berthing, meals, and uniforms. They are not limited, however, by the resources of the Reserve Center or even the U.S. Navy. As needed, Reserve Center personnel contract and liaison with other training assets external to their individual command at other Reserve Centers, at joint military training facilities, or civilian training installations such as colleges, universities, and technical centers, in order to meet the training needs of the center's reserve units and Reserve and active duty personnel.

Marine Corps Reserve Centers. Sixty-five installations were analyzed in the general category of Marine Corps Reserve Centers. Included in this group were stand-alone Marine Corps Reserve Centers and self-supporting and administered Marine Corps Reserve operations at Armed Forces Reserve Centers where the Marine Corps Reserve was the host at the installation. The general mission of these operations is to provide trained units and qualified individuals for active duty in time of war or national emergency and at such times as the national security requires. The centers provide equipment storage, armories, limited classroom space, and large parking lots for heavy assault equipment including artillery and very heavy duty transport equipment. Similar to the Naval Reserve Center personnel, Marine Corps Reserve Full Time Support (FTS)

personnel provide maintenance and updates of Reservists' service records, provide manpower and personnel computer updates, identification cards, and benefit qualification resources for Reservists, as well as family member support during time of mobilization. The center support staff also provides the logistical needs of drilling reservists such as berthing, meals, and uniforms. Though Marine Corps Reserve Centers conduct some structured classroom instruction within the Reserve Center buildings, the major portion of Marine Corps Reserve training is conducted in outdoor, combat-like field activities and on firing ranges. While meeting their management and administration needs, Reservists also train in the safe and effective use of combat field weapons and artillery.

Naval Air Reserve Centers. Thirteen Naval Air Reserve and Naval Air Reserve Centers were analyzed in this category of Reserve Centers. The general mission responsibility of the Naval Air Reserve operations is to provide aircrew and aviation technical training ground instructors, classrooms and maintenance operations required for training equipment and devices for both tenant and Reserve aviation units and squadrons. The Air Reserve and Air Reserve Centers train all assigned units for their mobilization assignments and provide administrative coordination and logistics support to Naval Air Reserve units in the local area. Many of these operations also provide support to the assigned Marine Air Groups and Marine Corps (Wing) Reserve Units assigned to the facilities. Like Naval Reserve Center personnel, Naval Air Reserve and Reserve Center personnel provide maintenance and updates of Reservists' service records, provide manpower and personnel computer updates, identification cards, and benefit qualification resources for Reservists, as well as family member support during time of mobilization. The center support staff also provides the logistical needs of drilling reservists such as berthing, meals, and uniforms. In addition, the centers provide maintenance and updates of Reservists' medical and dental records, physicals, HIV testing, and physical readiness testing. Also, the center's personnel provide specific training as required by each individual's billet and measure each Reservist's qualification to fill his assigned billet in time of national emergency or war.

Marine Corps (Wing) Reserve Centers. Fourteen Marine Corps (Wing) Reserve Centers were reviewed. Included in this group were Marine Corps Reserve Anti-aircraft Missile Battalions, Reserve Low Altitude Air Defense Battalions, several Reserve Marine Aircraft Groups, and Reserve Marine Fighter Training Squadrons. The general mission of these groups is to provide support to Reserve and active duty Marine Corps Air activities. Included are the manning, training, and maintenance of Marine Corps Reserve (Wing) units. These units, which include tactical aircraft command and control units and aviation ground support units, provide Reserve maintenance support assets for rotary wing and fixed wing aircraft and air defense and anti-aircraft protection for both Reserve and active duty assets. Similar to the Naval Reserve Center personnel, Marine Corps Reserve FTS personnel provide maintenance and updates of Reservists' service records, provide manpower and personnel computer updates, identification cards, and benefit qualification resources for Reservists, as well as family member support during time of mobilization.

The center support staff also provides the logistical needs of drilling reservists such as berthing, meals, and uniforms.

Naval Reserve Readiness Commands. Thirteen Naval Reserve Readiness Commands were analyzed in the DON BRAC-95 evaluation process. The mission of Readiness Commands (REDCOMs) is to provide senior management support to Navy and Marine Corps, Naval Reserve, and Naval Reserve Readiness Centers, Naval Reserve Facilities and Naval Activities at Joint Military Armed Forces Reserve Centers. In this capacity, each REDCOM staff, under the command of a Reserve Flag Officer, manages the mandated Inactive Duty for Training and Travel (IDTT) budget, in millions of dollars, for 15 to 20 Naval Reserve activities supporting from 4,000 to over 8,000 Reservists. In addition, the REDCOMs act as the regional purchasing and supply acquisition centers for the Reserve activities under their management. The REDCOMs also man and facilitate a Reserve Center inspection team, under the leadership of a senior Reserve Captain and staff. This team conducts triennial inspections of Reserve Centers and Reserve Units located at the Reserve Centers. All active duty for training (ADT), which is required annually for each Reservist, must be approved by the cognizant REDCOM. All awards, ceremonies, nominations, and appointments by Reserve Centers must be approved by the REDCOMs. The REDCOMs are staffed through selection of personnel from the Reservists within the management region of the REDCOM.

Data Call Development

Review of the BRAC-93 Reserve Activities analytical process revealed a need to capture the dynamic use of the Reserve Center to supplement static, square footage information. Thus, BRAC-95 data calls were developed to capture the actual use of these facilities. A special measure was developed to capture this usage, called an "Authorized/Directed Drill Utilization Hour." An "Authorized/Directed Drill Utilization Hour" at a Reserve activity was defined as the number of facilities (i.e., a classroom, assembly hall, armory, or other facility) used multiplied by the number of weekend hours per year the facility was occupied. Navy Facilities Engineering Command criteria were used to identify facilities (rooms) within the Reserve Centers and Commands. The drill utilization measure had the flexibility of assessing both the hours that Reserve Center/Command facilities were in use, and the number of reservists that occupied those facilities. Using this measure, the capacity data call was constructed to measure current facility (room) utilization by Reserve Centers and the expected use of those facilities in FY 2001. In addition, in order to measure throughput, the number of reservists and the hours spent in training, currently and expected in FY 2001, were also included in the capacity data call. The assumptions for capacity of the Reserve Centers was based on 8 hours-a-day of use of the various facilities on a standard two-day drill weekend. Full utilization was assumed to be a 16-hour drill weekend for the actual number of weekends per month that the Reserve Center was training reservists. Questions were also developed to capture essential community and non-military uses of the centers.

The military value data call was designed to capture information about the Reserve Center with a strong emphasis on demographics. Questions were developed that gathered data on mission, special facilities, units assigned and billets filled, travel distance to the center, factors impacting recruiting, facility condition, and ability to expand. Standard modules were included for ship berthing, ordnance storage and quality of life. The drill utilization measure and the data calls were developed with assistance from technical experts from the Navy and Marine Corps Reserve Forces.

Capacity Analysis

Excess capacity of the Reserve Centers was computed by comparing the actual Drill Utilization of the center against the potential maximum Drill Utilization of the center. Actual Drill Utilization was the sum of the Drill Utilization for each facility (room) reported in certified data by each Reserve Center. The maximum Drill Utilization was computed using the number of facilities (rooms) in the center and multiplying this by the number of drill weekends the center reported in certified data that it was drilling per month. Marine Corps Reserve Centers were given credit for drilling that was conducted outside the center, since a significant portion of their training is done in the field and is not dependent on a Reserve Center for its execution. Using these methods, the capacity analysis showed 15.58 percent excess Drill Utilization Hours in the Navy Reserves and 19.3 percent excess Drill Utilization Hours in the Marine Corps Reserves. The BSEC found the excess capacity of Drill Utilization Hours in both the Marine Corps and Navy Reserve demonstrated sufficient excess capacity to warrant continued analysis of this subcategory.

Military Value Analysis

The location of Reserve Centers relative to population sources that could support both the manning and billets needed was a priority of the BSEC. The proposed military value matrix was built around the need for the Reserve infrastructure to be aligned demographically with Reserve presence in every state. Further, to the extent demographically possible, Reserve presence should be maximized at fleet concentrations to optimize participatory and logistic support and training opportunities with the active forces. The military value matrix questions were divided into four categories with most of the weight and emphasis on demographics.

<u>SELRES Support</u>. In this area, except for REDCOMs, the greatest weight was placed on those centers supporting the largest numbers of reservists. Centers also received maximum points if 90 percent or more of their billets were filled. The BSEC expressed interest in the number of Selected Reservists (SELRES) waiting for billets, as an indication of a demographically-rich environment. The BSEC used a waiting list of 10 percent of the assigned billets to reflect this healthy demographic environment. For REDCOMs, the most significant factors were the number of Reserve Centers for which a REDCOM had management responsibility and the number of reservists which a

REDCOM managed. The higher the number in each of these factors, the higher the score.

Location. Except for REDCOMs, the most significant factor was being the exclusive Reserve Center in a state, which responds to the requirement for a Reserve presence in every state to enhance active and Reserve recruiting, among other benefits. Other factors included proximity to other Reserve Centers, travel time to the Reserve Center for the majority of the drilling Reservists, and transportation nodes available for mobilization. For REDCOMs, the greatest emphasis was placed on not being within 200 miles of another REDCOM. Other factors included the availability of transportation nodes for mobilization and a location that enhanced mobilization.

Features and Capabilities. The most important element here was proximity to active military installations, a companion factor for the naval centers providing fleet support. Other factors included particular demographics that demonstrated a rich environment for recruiting and manning, unique training features, expensive equipment not readily available, and use of center facilities for non-military local assistance programs. For REDCOMs, special emphasis was placed on the independence of the REDCOM from the need to use resources from any other Naval Reserve Center or Command.

Facilities. For all Reserve Centers, discriminating factors included the use of airfields and airspace, unique facilities not available within 100 miles, the adequacy of facilities, and the size of the Reserve Center. For REDCOMs, the greatest evaluative weight was given to the adequacy of space available for the management mission and to the ability to expand operations at the REDCOM.

Configuration Analysis

The BSEC developed approaches to be used in the configuration analysis to ensure that available demographics were accurately reflected. The BSEC incorporated demographic consideration into the various model's parameters and rules to identify especially productive demographic areas. For example, Naval Reserve Centers with 100 percent or greater manning were determined to be indicative of especially productive demographic areas and, therefore, should not be closed. In addition, consideration was given to the Reserve Force leadership's perspective that a Reserve presence should be maintained in every state to ensure a broad demographic base to meet recruiting requirements. The parameters were based on SELRES manning levels, center location, center drill utilization availability, and FY 2001 drill utilization requirements. The model output designated centers which should be opened or closed. Similar parameters and rules were used for the configuration analysis of all five of the Reserve categories.

Naval Reserve Centers. For Navy and Marine Corps Reserve Centers, the model's initial solution closed 22 activities, while keeping 159 activities open. Excess drill

utilization hours were reduced to nine hours, and the average military value was maintained at 43.11. The secondary solution closed 33 activities, while keeping 148 activities open. Excess drill utilization hours were reduced to 39 hours, and the average military value was 43.55. The tertiary solution closed 14 activities, while keeping 167 activities open. Excess drill utilization hours were reduced to 51, and the average military value was 42.59.

Marine Corps Reserve Centers. For the Marine Corps Reserve Centers, the initial solution closed 27 activities, while keeping 38 activities open. Excess drill utilization hours were reduced to two hours, and the average military value was 49.88. The secondary solution for Marine Corps Reserve Centers closed 25 activities, while keeping 40 activities open. Excess drill utilization hours were reduced to two hours as in the initial solution, but the average military value dropped slightly to 49.39. The tertiary solution lowered military value only slightly from the secondary solution 49.39 to 49.38. In the third solution 26 activities were closed while keeping 39 activities open. Excess drill utilization hours were reduced to only two hours.

Naval Air Reserve Centers. For the Navy Air Reserve Centers, the model's initial solution closed five of 13 activities. Excess drill utilization hours were reduced, and the average military value was maintained. The second solution closed four activities leaving nine open while also reducing excess hours and maintaining military value. The third solution also closed four activities while leaving nine open.

Marine Corps (Wing) Reserve Centers. For the Marine Corps (Wing) Reserve, the initial model solution closed five of 14 activities. Excess drill utilization was reduced to 558 hours, and the average military value was maintained at 52.83. The second solution in this category produced the same numbers as the initial solution, but the military value was somewhat higher. The third solution closed four activities, while keeping 10 open. Excess drill utilization hours were reduced to 144, and the average military value was 53.41.

Naval Reserve Readiness Commands. Of the 13 Naval Reserve Readiness Commands, the initial model solution would have closed five of them. The final average drill utilization hours per SELRES was 11.81. Excess drill utilization hours were reduced to four, and the average military value was 52.98. The second solution closed four activities, while keeping nine open. The average drill utilization hours per SELRES was 13.53. Excess drill utilization hours were reduced to four, and the average military value was 52.00. The third solution, like the first, closed five REDCOMs. The final drill utilization hours were reduced to four, and the average military value was 51.97. The REDCOMs configuration analysis also included sensitivity analyses at +10 percent, -10 percent, and -20 percent changes in REDCOM requirements. The -20 percent change produced the same results as -10 percent.

Scenario Development and Analysis

After reviewing the configuration analysis results, the BSEC developed an approach to identify activities for COBRA analysis. The BSEC first looked at those activities which were closed in three model solutions and which were not located on an active duty base. In the case of the REDCOMs, which also had sensitivity analyses, six model solutions were the baseline for further discussion.

After reviewing the list of activities in three model solutions, the BSEC removed from consideration Reserve Centers located on active duty installations. Six Marine Corps Reserve activities were removed from consideration with this action. To maintain existing state location by the Marine Corps Reserve, the BSEC removed activities that were the sole activity in a particular state. To protect demographic areas for recruiting in the Marine Corps Reserves, the BSEC determined to remove centers that were located in large metropolitan locations. The final list of Marine Corps Reserve Centers included Albany, New York; Austin, Texas; and Nashville, Tennessee. The BSEC determined that COBRA scenario data calls should be developed for closing those three activities.

In addition, the BSEC directed the BSAT to prepare COBRA scenario data calls for 10 Navy Reserve Centers, two REDCOMs, two Marine Corps (Wing) Reserve Centers, and two Naval Air Reserve Centers. The Navy Reserve Centers included: NRC Cadillac, Michigan; NMCRC Eugene, Oregon; NRC Huntsville, Alabama; NRC Santa Ana, Irvine, California; NRF Laredo, Texas; NRC Pomona, California; NMCRC San Jose, California; NRC Sheboygan, Wisconsin; NRC Staten Island, New York; and NRC Stockton, California. The REDCOMs that appeared on three configuration solutions and for which COBRA scenarios were developed included REDCOM 7, Charleston, South Carolina, and REDCOM 11, Dallas, Texas. Responses to the REDCOM scenarios resulted in the issuance of another scenario to close REDCOM 10, New Orleans, Louisiana. The Marine Corps (Wing) Reserve Centers selected for COBRA analysis were the 4th LAAM Battalion in Fresno, California, and MAG-49 Det B, Newburgh, New York. The Naval Air Reserve Centers selected were NARCEN Olathe, Kansas, and NAR Point Mugu, CA.

In reviewing the COBRA analyses and determining their recommendations for Reserve Center closures, the BSEC considered a number of factors including the following: (a) limited number of billets available for drilling SELRES; (b) poor utilization of facilities (e.g., only one drill per month); (c) no paying tenants at the Reserve Center; (d) ready opportunities for relocation of reservists to other Reserve Centers; (e) large number of unassigned billets which is indicative of poor recruiting demographics; and (f) the condition of the drilling space at the Reserve Center is substandard. Similarly, certain factors were present in virtually every Reserve Center scenario which the BSEC determined to reject for closure, such as (a) high one-time costs; (b) a lengthy period for return on investment, if in fact any such return would occur at all; and (c) need to continue support of an active operational activity.

Based on such factors, the BSEC recommended the closure of NRC Cadillac, Michigan; NRC Huntsville, Alabama; NRC Santa Ana, Irvine, California; NRF Laredo, Texas; NRC Pomona, California; NRC Sheboygan, Wisconsin; NRC Staten Island, New York; NRC Stockton, California; NARCEN Olathe, Kansas; REDCOM 7, Charleston, South Carolina; and REDCOM 10, New Orleans, Louisiana. However, the BSEC determined not to recommend closure of NMCRC San Jose, California; NMCRC Eugene, Oregon; MCRC Albany, New York; MCRC Austin, Texas; MCRC Nashville, Tennessee; NAR Point Mugu, California; 4th LAAM Battalion Headquarters Detachment, Fresno, California; MAG-49, Detachment B, Stewart Air National Guard Base, Newburgh, New York; and REDCOM 11, Dallas, Texas.

Conclusion

While there is significant excess capacity at Navy and Marine Corps Reserve Centers, the overriding concern to maintain a demographically sound Reserve establishment and guarantee Reserve recruiting opportunities resulted in closures only in areas with obvious duplication. Technical experts from the Navy and Marine Corps Reserve Forces provided critical knowledge of recruiting demographics and Reserve population support during the analytical stages, including development of measures for capacity analysis, refinement of the configuration analysis model, and COBRA analysis. For example, the Marine Corps Reserve Force identified critical cost factors directly related to demographic support of proposed Marine Corps Reserve Centers that, along with cost-free leases, contributed substantially to their elimination from consideration by the BSEC.

In general, the BSEC recommendations retain Reserve Centers in every state for the Navy, or where they now exist for the Marine Corps, and consolidate units to active-duty or joint service Centers where they may contribute more directly to the fleet, without impacting recruiting demographics. Each Reserve Center recommended for closure is located near a more complete DON Reserve establishment, usually in the same metropolitan area. The downsizing of the Reserve establishment allows consolidation of the Navy Reserve Readiness Commands by closing two REDCOMs while maintaining a geographically appropriate structure.

ATTACHMENT E-1

RECOMMENDATION FOR CLOSURE

RESERVE CENTERS/COMMANDS

Recommendation:
Close the following Naval Reserve Centers:

Stockton, California
Pomona, California
Santa Ana, Irvine, California
Laredo, Texas
Sheboygan, Wisconsin
Cadillac, Michigan
Staten Island, New York
Huntsville, Alabama

Close the following Naval Air Reserve Center:

Olathe, Kansas

Close the following Naval Reserve Readiness Commands:

Region Seven - Charleston, South Carolina
Region Ten - New Orleans, Louisiana

Justification: Existing capacity in support of the Reserve component continues to be in excess of the force structure requirements for the year 2001. These Reserve Centers scored low in military value, among other things, because there were a fewer number of drilling reservists than the number of billets available (suggesting a lesser demographic pool from which to recruit sailors), or because there was a poor use of facilities (for instance, only one drill weekend per month). REDCOM 7 has management responsibility for the fewest number of Reserve Centers of the thirteen REDCOMs, while REDCOM 10 has management responsibility for the fewest number of Selected Reservists. In 1994, nearly three-fourths of the authorized SELRES billets at REDCOM 10 were unfilled, suggesting a demographic shortfall. In addition, both REDCOMs have high ratios of active duty personnel when compared to SELRES supported. The declining Reserve force structure necessitates more effective utilization of resources and therefore justifies closing these two REDCOMs. In arriving at the recommendation to close these Reserve Centers/Commands, specific analysis was conducted to ensure that there was either an alternate location available to accommodate the affected Reserve population or demographic support for purpose of force recruiting in the areas to which units were

being relocated. This specific analysis, verified by the COBRA analysis, supports these closures.

Return on Investment: The total estimated one-time cost to implement the closure of NRC Stockton is $45 thousand. The net of all costs and savings during the implementation period is a savings of $2 million. Annual recurring savings after implementation are $.4 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $5.4 million.

The total estimated one-time cost to implement the closure of NRC Pomona is $48 thousand. The net of all costs and savings during the implementation period is a savings of $1.9 million. Annual recurring savings after implementation are $.3 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $5.1 million.

The total estimated one-time cost to implement the closure of NRC Santa Ana is $41 thousand. The net of all costs and savings during the implementation period is a savings of $3 million. Annual recurring savings after implementation are $.5 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $8.1 million.

The total estimated one-time cost to implement the closure of NRF Laredo is $27 thousand. The net of all costs and savings during the implementation period is a savings of $1.4 million. Annual recurring savings after implementation are $.3 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $3.8 million.

The total estimated one-time cost to implement the closure of NRC Sheboygan is $31 thousand. The net of all costs and savings during the implementation period is a savings of $1.5 million. Annual recurring savings after implementation are $.3 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $4.1 million.

The total estimated one-time cost to implement the closure of NRC Cadillac is $46 thousand. The net of all costs and savings during the implementation period is a savings of $1.8 million. Annual recurring savings after implementation are $.3 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $5 million.

The total estimated one-time cost to implement the closure of NRC Staten Island is $43 thousand. The net of all costs and savings during the implementation period is a savings of $4.5 million. Annual recurring savings after implementation are $.6 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $9.8 million.

The total estimated one-time cost to implement the closure of NRC Huntsville is $51 thousand. The net of all costs and savings during the implementation period is a savings of $2.6 million. Annual recurring savings after implementation are $.5 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $7.2 million.

The total estimated one-time cost to implement the closure of NARCEN Olathe is $.2 million. The net of all costs and savings during the implementation period is a savings of $3.9 million. Annual recurring savings after implementation are $.7 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $10.9 million.

The total estimated one-time cost to implement the closure of NRRC Charleston is $.5 million. The net of all costs and savings during the implementation period is a savings of $14.4 million. Annual recurring savings after implementation are $2.7 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $39.9 million.

The total estimated one-time cost to implement the closure of NRRC New Orleans is $.6 million. The net of all costs and savings during the implementation period is a savings of $6 million. Annual recurring savings after implementation are $1.9 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $23.8 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, the closure of NRC Stockton could result in a maximum potential reduction of 10 jobs (7 direct jobs and 3 indirect jobs) over the 1996-to-2001 period in the Stockton-Lodi, California MSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential increase equal to 0.6 percent of employment in the economic area.

Assuming no economic recovery, the closure of NRC Pomona could result in a maximum potential reduction of 15 jobs (10 direct jobs and 5 indirect jobs) over the 1996-to-2001 period in the Los Angeles-Long Beach, California PMSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 0.4 percent of employment in the economic area.

Assuming no economic recovery, the closure of NRC Santa Ana could result in a maximum potential reduction of 21 jobs (14 direct jobs and 7 indirect jobs) over the 1996-to-2001 period in the Orange County, California PMSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 1.1 percent of employment in the economic area.

Assuming no economic recovery, the closure of NRF Laredo could result in a maximum potential reduction of 8 jobs (6 direct jobs and 2 indirect jobs) over the 1996-to-2001 period in the Laredo, Texas MSA economic area, which is less than 0.1 percent of economic area employment.

Assuming no economic recovery, the closure of NRC Sheboygan could result in a maximum potential reduction of 8 jobs (6 direct jobs and 2 indirect jobs) over the 1996-to-2001 period in the Sheboygan, Wisconsin MSA economic area, which is less than 0.1 percent of economic area employment.

Assuming no economic recovery, the closure of NRC Cadillac could result in a maximum potential reduction of 10 jobs (8 direct jobs and 2 indirect jobs) over the 1996-to-2001 period in the Wexford County, Michigan economic area, which is 0.1 percent of economic area employment.

Assuming no economic recovery, the closure of NRC Staten Island could result in a maximum potential reduction of 21 jobs (14 direct jobs and 7 indirect jobs) over the 1996-to-2001 period in the New York, New York PMSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 0.1 percent of employment in the economic area.

Assuming no economic recovery, the closure of NRC Huntsville could result in a maximum potential reduction of 26 jobs (19 direct jobs and 7 indirect jobs) over the 1996-to-2001 period in the Madison County, Alabama economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential increase equal to 2.7 percent of employment in the economic area.

Assuming no economic recovery, the closure of NARCEN Olathe could result in a maximum potential reduction of 22 jobs (14 direct jobs and 8 indirect jobs) over the 1996-to-2001 period in the Kansas City, Missouri-Kansas MSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area

over the 1994-to-2001 period could result in a maximum potential decrease equal to 0.1 percent of employment in the economic area.

Assuming no economic recovery, the closure of NRRC Charleston could result in a maximum potential reduction of 42 jobs (30 direct jobs and 12 indirect jobs) over the 1996-to-2001 period in the Charleston-North Charleston, South Carolina MSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 8.4 percent of employment in the economic area.

Assuming no economic recovery, the closure of NRRC New Orleans could result in a maximum potential reduction of 73 jobs (47 direct jobs and 26 indirect jobs) over the 1996-to-2001 period in the New Orleans, Louisiana MSA economic area, which is less than 0.1 percent of economic area employment.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of these Reserve Centers and Readiness Commands generally will have a positive impact on the environment since, with the exception of REDCOM 10, they concern closures with no attendant realignments of personnel or functions. In the case of REDCOM 10, the movement of less than 10 military personnel to REDCOM 11, Dallas, Texas, is not of such a size as to impact the environment. Further, there is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

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ATTACHMENT F

DESCRIPTION OF ANALYSIS OF TRAINING AIR STATIONS

The Training Air Stations subcategory includes those DON activities which have Undergraduate Pilot Training (UPT) as their primary mission. UPT refers to the flight training student pilots and naval flight officers undergo to earn their wings before being assigned to fleet replacement squadrons. The Training Air Stations subcategory includes five installations, as follows:

Naval Air Station, Whiting Field, Milton, Florida
Naval Air Station, Pensacola, Florida
Naval Air Station, Meridian, Mississippi
Naval Air Station, Corpus Christi, Texas
Naval Air Station, Kingsville, Texas

During BRAC-93, analysis revealed that the mission of UPT air stations differs substantially from fleet air stations, including those that exist primarily as training sites. Because of this, UPT air stations were evaluated separately from fleet (or operational) air stations. This approach was also adopted in BRAC-95.

Data Call Development

The capacity and military value data calls were developed using the BRAC-93 data calls as starting points. Sets of questions were then expanded or compressed based on lessons learned from BRAC-93 and consultations with technical experts. The capacity data call was designed to capture all pertinent data required to evaluate the capacity of each air station to train student pilots. Consequently, most questions focused on the training syllabi (what assets and facilities are required for each type of UPT training), airfield capacities, and the amount and availability of special-use airspace.

The military value data call was designed to capture those facilities, features, and issues that would be used to evaluate the military value of training air stations. Emphasis was placed on those facilities and assets required for flight training, such as availability and access to various types of special-use airspace, configuration and condition of runways, and number and availability of outlying airfields. The data call also focused on encroachment concerns, both ground and airspace, and the ability of each air station to expand and/or change its missions. An underlying theme throughout the data call was an attempt to capture the ability of each air station to support strike training, the highest level of UPT training, which requires jet capable airfields and large volumes of special-use airspace. The military value data call also contained standard questions on ship

berthing capacity, ordnance storing and handling, quality of life, infrastructure, acreage, and investment.

Capacity Analysis

The capacity measure used to analyze Training Air Stations was the annual number of pilots and naval flight officers that can be trained each year. The approach used in the capacity analysis to determine if excess capacity existed within the subcategory was to compare annual throughputs from prior years against projected requirements through FY 2001. FY 1988 and FY 1989 throughput levels were used as historic capacity measures. These years represent the peak of the defense build up during the Reagan years and are recent enough that no major changes in training syllabus have occurred.

UPT comprises eleven training pipelines, each with its own training requirements. These training paths differ sufficiently that an aggregate calculation of capacity for Training Air Stations would not be meaningful. As a result, capacity was analyzed within each training path. The results of the analysis showed that future requirements are anywhere from 19 percent to 42 percent below historic throughput levels. Accordingly, the BSEC concluded that excess capacity existed at Training Air Stations and directed an analysis of military value.

Military Value Analysis

The military value matrix was developed after review of the BRAC-93 matrix, with modifications based on lessons learned, technical expert perspectives, and matrix sections already approved by the BSEC for other areas. The military value questions were grouped into nine subject areas, covering flight training areas and airspace, airfield and maintenance facilities, expansion potential, training and training facilities, military and general support missions, weather, location, and base loading. Standardized questions relating to facilities, real estate, environmental issues, and quality of life were adjusted to reflect the unique missions of training air stations (e.g., quality of life questions were adjusted due to the predominantly transient nature of the customer population).

The areas of flight training/airspace and airfield facilities contained the most questions and received the most weight. This weighting reflects the high value placed on airspace and the infrastructure most directly related to an air station's ability to train student pilots. Additionally, questions were constructed so that air stations which can support more types of UPT training (in particular jet training) received more points. The military value scores ranged from 68.97 to 75.65 (out of a possible 97.69 points), with the scores of the five Training Air Stations distributed evenly through that range. The airfield facilities section proved the greatest discriminator between the air stations.

Configuration Analysis

The approach used to conduct configuration analysis for training air stations centered on minimizing excess student throughput capacity while maintaining average military value. Student throughput capacity was related to two variables: annual daylight runway operations and square nautical miles of special use airspace. In arriving at a solution that minimized excess throughput capacity, the optimization model compared FY 2001 requirements in both these areas against the capacity at each station. Two rules were imposed on the model that constrained the assignment of training. The first restricted certain types of training from assignment to certain bases because of physical limitations at those bases (e.g., runways unable to accommodate specific trainer aircraft). The second rule forced certain types of training to be assigned to only one base or at most two bases. This rule was necessary to prevent training currently done at a single base or at two bases from being distributed to multiple sites and thereby having to invest in supporting infrastructure at multiple sites.

The configuration analysis identified the best, second best, and third best solution sets and then conducted sensitivity analyses to show what happens if FY 2001 requirements are increased by 10 and 20 percent and decreased by 10 percent. The initial (best) solution output from the configuration model closed two air stations, NAS Corpus Christi and NAS Meridian. The second solution set closed only NAS Meridian, while the third solution did not close any training air station. The sensitivity analyses solution sets were similar to the initial outputs. With either a 10 percent or a 20 percent increase in requirements, NAS Meridian was recommended for closure. The secondary solutions left all sites open, and the third found no additional feasible solution. When the requirements were reduced by 10 percent, NAS Whiting Field was suggested for closure. However, the secondary and tertiary solutions were identical to the original best and second best, recommending the closure of NAS Meridian and NAS Corpus Christi.

Scenario Development and Analysis

The configuration model's results provided the BSEC with a starting point for deliberations leading to scenario development. Although the configuration model results left significant excess capacity under all solutions, the BSEC determined that the results provided the basis for conducting COBRA analyses on the closures of NAS Meridian and NAS Corpus Christi and therefore issued three COBRA scenario data calls. The first scenario directed the complete closure of NAS Meridian, with strike training consolidated at NAS Kingsville. The second scenario directed the complete closure of both NAS Meridian and NAS Corpus Christi, with NAS Meridian functions relocated to NAS Kingsville and NTC Great Lakes and the undergraduate pilot training at NAS Corpus Christi relocated to NAS Pensacola and NAS Whiting Field. The third scenario directed the complete closure of NAS Meridian and the realignment of NAS Corpus Christi as a Naval Air Facility (NAF) under the control of NAS Kingsville. This scenario realigned the UPT functions as in the second scenario and moved mine warfare helicopter (HM)

assets from NAS North Island and NAS Norfolk into NAF Corpus Christi. A fourth scenario, received from the UPT Joint Cross-Service Group (JCSG) was also issued. This scenario built on the DON's third scenario but added the closure of NAS Whiting with helicopter training transferring to Fort Rucker and primary fixed-wing training to NAS Pensacola.

The BSEC reviewed the scenario data call responses in the context of anticipated military construction costs, manning requirements, and future Joint Primary Aviation Training System (JPATS) support. Particular concern was directed to the operational merits of each option. Alternatives received from the major claimant, the Chief of Naval Education and Training (CNET), to relocate NTTC to the Navy Supply Corps School, Athens, Georgia; NAS Pensacola; and NETC Newport were also explored.

Based on all the available data, including the COBRA results, the BSEC concluded that the complete closure of NAS Meridian, relocation of NTTC Meridian functions to Navy Supply Corps School, Athens and NETC Newport, and the realignment of NAS Corpus Christi as an NAF were most supportive of DON requirements and most cost-effective. To eliminate the substantial excess capacity in the Training Air Stations, the BSEC sought the most effective utilization of airspace and facilities. NAS Kingsville (using NAF Corpus Christi as an OLF) can support all strike training. The NAS Pensacola-NAS Whiting Field complex can support all primary pilot, all helicopter, all multi-engine pilot, and all NFO training. NAS Meridian alone, without substantial construction (or cost), cannot support all strike or primary pilot training, in part because, unlike the other Training Air Stations, NAS Meridian is not located near other naval air bases so it can obtain synergistic benefits. Although NAS Meridian is not needed for Navy UPT, there is potential for regional synergism with Columbus AFB which could make it valuable as a joint UPT training base.

The closure of Meridian and relocation of NTTC Meridian supports on-going efforts by the major claimant for training synergies across many communities, consistent with DON policy in both these areas. The realignment of NAS Corpus Christi also allows consolidation of mine warfare training. Operationally, retention of Corpus Christi as an NAF allows its use as an OLF and provides surge capability for mobilization of aviation assets and insurance against future unforeseen increases in aviation training requirements. While the station at Corpus Christi clearly provides capacity excess to DON requirements for aviation training, that air base also provides substantial support as a host to numerous non-DON tenants across a broad range of non-training missions, including a major Army industrial activity (the Corpus Christi Army Depot (CCAD)) and aviation assets of the Drug Enforcement Agency. The missions of these activities necessitate continued use of the airstrip. The retention of this facility as an NAF is far more cost efficient for DoD and other elements of the federal government than either relocating or recreating this infrastructure.

The BSEC recommendations incorporated two of the three joint alternatives for consideration forwarded by the joint cross service UPT group. The BSEC rejected the alternative that closed NAS Whiting Field because of high one-time costs and a poor return on investment.

Conclusion

The evaluation of Training Air Stations showed that all required training can be done at the DON West Florida and South Texas complexes. The primary flight training synergism available in the NAS Pensacola-NAS Whiting Field complex allows for significant savings from consolidating initial training in this region. Likewise, the NAS Kingsville-NAS Corpus Christi complex provides for significant savings when strike training is consolidated at a single base, with the other facility's capacity retained as an outlying field. This retention also minimizes the cost burden associated with a complete closure of Corpus Christi, which would require relocation of significant tenant assets.

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ATTACHMENT F-1

RECOMMENDATION FOR REALIGNMENT

NAVAL AIR STATION, CORPUS CHRISTI, TEXAS

Recommendation: Realign Naval Air Station, Corpus Christi, Texas as a Naval Air Facility, and relocate the undergraduate pilot training function and associated personnel, equipment and support to Naval Air Station, Pensacola, Florida and Naval Air Station, Whiting Field, Florida.

Justification: Reductions in force structure have led to decreases in pilot training rates. This reduction has allowed the Navy to consolidate maritime and primary fixed wing training in the Pensacola-Whiting complex while retaining the airfield and airspace at Corpus Christi to support the consolidation of strike training at the Kingsville-Corpus Christi complex. The Corpus Christi Naval Air Facility is also being retained to accept mine warfare helicopter assets in support of the Mine Warfare Center of Excellence at Naval Station, Ingleside, and to provide the opportunity for the movement of additional aviation assets to the NAF as operational considerations dictate. This NAF will continue to support its current group of DoD and Federal agency tenants and their aviation-intensive needs, as well as other regional Navy air operations as needed.

Return on Investment: The return on investment data below applies to the closure of NAS Meridian, the closure of NTTC Meridian, the realignment of NAS Corpus Christi to an NAF, and the NAS Alameda redirect. The total estimated one-time cost to implement these recommendations is $83.4 million. The net of all costs and savings during the implementation period is a savings of $158.8 million. Annual recurring savings after implementation are $33.4 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $471.2 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 152 jobs (142 direct jobs and 10 indirect jobs) over the 1996-to-2001 period in the Corpus Christi, Texas MSA economic area, which is 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential increase equal to 0.2 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The realignment of NAS Corpus Christi will have a generally positive effect on the environment. Undergraduate Pilot Training will be relocated to NAS Pensacola and NAS Whiting Field, which are in air quality control districts that are in attainment for CO, ozone, and PM-10. A conformity determination for certain air quality areas may be required to assess the impact this realignment (in combination with the closure of NAS Meridian) will have on the air quality status of these areas. Each receiving base was reviewed for the realignment impact on threatened/endangered species, sensitive habitats and wetlands, cultural/historical resources, land/air space use, pollution control, and hazardous material waste requirements, and no such impact was found. Adequate capacity exists for all utilities at each gaining base. The gaining sites have sufficient space for rehabilitation or unrestricted acres available for expansion.

ATTACHMENT F-2

RECOMMENDATION FOR CLOSURE

NAVAL AIR STATION, MERIDIAN, MISSISSIPPI

Recommendation: Close Naval Air Station, Meridian, Mississippi, except retain the Regional Counterdrug Training Academy facilities which are transferred to the Academy. Relocate the undergraduate strike pilot training function and associated personnel, equipment and support to Naval Air Station, Kingsville, Texas. Its major tenant, the Naval Technical Training Center, will close, and its training functions will be relocated to other training activities, primarily the Navy Supply Corps School, Athens, Georgia and Naval Education and Training Center, Newport, Rhode Island.

Justification: The 1993 Commission recommended that Naval Air Station, Meridian remain open because it found that the then-current and future pilot training rate (PTR) required that there be two full-strike training bases, Naval Air Station, Kingsville, Texas and Naval Air Station, Meridian. In the period between 1993 and the present, two factors emerged that required the Department of the Navy again to review the requirement for two such installations. First, the current Force Structure Plan shows a continuing decline in the PTR (particularly in the decline from 11 to 10 carrier air wings) so that Navy strike training could be handled by a single full-strike training base. Second, the consolidation of strike training that follows the closure of NAS Meridian is in the spirit of the policy of the Secretary of Defense that functional pilot training be consolidated. The training conducted at Naval Air Station, Meridian is similar to that conducted at Naval Air Station, Kingsville, which has a higher military value, presently houses T-45 assets (the Department of the Navy's new primary strike training aircraft) and its supporting infrastructure, and has ready access to larger amounts of air space, including over-water air space if such is required. Also, the Undergraduate Pilot Training Joint Cross-Service Group included the closure of Naval Air Station, Meridian in each of its closure/realignment alternatives. The separate recommendation for the consolidation of the Naval Technical Training Center functions at two other major training activities provides improved and more efficient management of these training functions and aligns certain enlisted personnel training to sites where similar training is being provided to officers.

Return on Investment: The return on investment data below applies to the closure of NAS Meridian, the closure of NTTC Meridian, the realignment of NAS Corpus Christi to an NAF, and the NAS Alameda redirect. The total estimated one-time cost to implement these recommendations is $83.4 million. The net of all costs and savings during the implementation period is a savings of $158.8 million. Annual recurring savings after implementation are $33.4 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $471.2 million.

Impacts:

Economic Impact on Communities: The economic data below applies to the closure of NAS Meridian and the closure of NTTC Meridian. Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 3324 jobs (2581 direct jobs and 743 indirect jobs) over the 1996-to-2001 period in the Lauderdale County, Mississippi economic area, which is 8.0 percent of economic area employment.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NAS Meridian will have a generally positive effect on the environment. Undergraduate Pilot Training will be relocated to NAS Kingsville, which is in an air quality control district that is in attainment for CO, ozone, and PM-10. Cleanup of the six IR sites at NAS Meridian will continue. No impact was identified for threatened/endangered species, sensitive habitats and wetlands, cultural/historical resources, land/air space use, pollution control, and hazardous material waste requirements. Adequate capacity exists for all utilities at the gaining base, and there is sufficient space for rehabilitation or unrestricted acres available for expansion.

ATTACHMENT G

DESCRIPTION OF ANALYSIS OF TRAINING/EDUCATIONAL CENTERS

The DON training commands provide all phases of professional training from recruit training to postgraduate degree programs for all levels of enlisted and officer personnel. The Training and Educational Centers subcategory evaluated during BRAC-95 includes 29 activities, divided into four groups, as follows:

Recruit Training Activities
Marine Corps Recruit Depot (MCRD), San Diego, California
Naval Training Center (NTC), Great Lakes, Illinois
Marine Corps Recruit Depot (MCRD), Parris Island, South Carolina

Fleet Training Activities
Naval Amphibious School (PHIBSCOL) Pacific, Coronado, California (name changed to Expeditionary Warfare Training Group (EWTG) 1 Oct 94)
Fleet Anti-Submarine Warfare Training Center (FLEASWTRACEN) Pacific, San Diego, California
Fleet Combat Training Center Pacific (FCTCP), San Diego, California
Fleet Training Center (FTC), San Diego, California
Fleet Training Center (FTC), Mayport, Florida
Trident Training Facility (TRITRAFAC), Kings Bay, Georgia
Fleet Mine Warfare Training Center (FMWTC), Charleston, South Carolina
Naval Amphibious School (PHIBSCOL) Atlantic, Little Creek, Virginia (name changed to Expeditionary Warfare Training Group (EWTG) 1 June 94)
Fleet Anti-Submarine Warfare Training Center (FLEASWTRACEN) Atlantic, Norfolk, Virginia
Fleet Training Center (FTC), Norfolk, Virginia
Fleet Combat Training Center Atlantic (FCTCL), Virginia Beach, Virginia
Trident Training Facility (TRITRAFAC), Bangor, Washington

Pipeline Training Activities
Naval Amphibious Base (NAB), Coronado, California
Marine Corps Air Ground Combat Center (MCAGCC), Twentynine Palms, California
Naval Submarine School (SUBSCOL), New London, Connecticut
Naval Technical Training Center, Corry Station (NTTCC), Florida
Naval Supply Corps School (SUPSCOL), Athens, Georgia
Naval Technical Training Center, Meridian (NTTCM), Mississippi
Naval Education and Training Center (NETC), Newport, Rhode Island
Surface Warfare Officers School Command (SWOSCOL), Newport, Rhode Island

Naval Air Technical Training Center (NATTC), Millington, Tennessee
AEGIS Training Center (ATC), Dahlgren, Virginia
Marine Corps Combat Development Command (MCCDC), Quantico, Virginia

Degree-Granting Activities
Naval Postgraduate School (NPGS), Monterey, California
United States Naval Academy (USNA), Annapolis, Maryland
Naval War College (NWC), Newport, Rhode Island

The various training commands are characterized by the types of training they support. The three recruit depots provide the basic indoctrination into their respective military service for enlisted inductees. The twelve fleet activities are located at fleet concentrations and provide primarily short duration courses to enlisted personnel. The eleven pipeline activities are not collocated with the fleet and do not rely on other military activities to complete their mission. Their course offerings are frequently of longer duration requiring temporary additional duty orders. The three degree-granting institutions offer bachelor and advanced degree programs.

Data Call Development

The data calls used in the BRAC-93 process, supplemented by lessons learned, formed the starting point for BRAC-95 capacity and military value data call development. The capacity data call was designed to capture specific features and capabilities of each training activity, including manpower factors, physical space available for expansion and support, facility and equipment characteristics, and contingency and mobilization features. Data generally was requested for the current period through 2001. Maximum capacity was determined by throughput, using slightly differently units within each group, tied to objective facility capabilities. The annual course throughput requirements for FY 2001 were obtained to define requirements. In contrast to the BRAC-93 analysis, which looked at the square footage required to accomplish various training missions, the BRAC-95 capacity data call sought "facilities usage" in order to measure training capacity.

The military value data call placed emphasis on the types of training actually performed at the activities; student throughput; impacts of specific location on mission accomplishment; unique capabilities, facilities and/or equipments that added value to each mission area; and alternatives that existed to obtain training or support elsewhere. Questions on historic and planned capital improvements were included to capture information about base infrastructure and investment. Other military value questions captured availability and condition of land, environmental issues, contingency and mobilization features, and weather impact on operations. A standard set of quality of life questions was developed and used for all subcategories of activities.

Capacity Analysis

In general, capacity was determined by the amount of classroom space available at each activity (how many rooms, how many hours per day, how many days per week). The capacity analysis compared the maximum availability with the FY 2001 projected throughput, based on the FY 2001 force structure, for each course of instruction. This capacity measure was tailored to best capture the type of training conducted by the activities within the four groupings.

For recruit training activities, the capacity measures were classroom capacity, capacity of firing ranges, and billeting and messing capabilities. Though accession programs strive for level loading throughout the fiscal year, recruit training at all the activities experiences a marked annual peak. Therefore, the capacity analysis compared maximum capacity against both the FY 2001 annual requirement and the peak loading requirement. Comparing the number of recruits to be trained on an annual basis with the capacity measures identified, sufficient excess was demonstrated that the BSEC directed military value analysis be conducted.

For the twelve fleet training activities and the eleven pipeline training activities, throughput was determined by maximum class size and number of annual convenings for each course, which yielded the maximum potential number of students who could be put through training annually. This maximum potential was compared to the FY 2001 throughput requirements. A secondary measure was also applied which compared the average-on-board student load reported during FY 1992 and FY 1994 against the FY 2001 requirement. This capacity analysis demonstrated sufficient excess to warrant military value analysis of the fleet and pipeline training activities.

For the three degree-granting activities, throughput was determined by calculating the number of hours that classrooms were available for training, and comparing that quantity to the hours required to execute assigned programs. Both gross and net available hours were calculated, the latter determined to be 75 percent of the gross hours capacity. Net capacity allows for classroom nonavailability due to scheduling conflicts, cleaning time, rehabilitation of spaces, and other requirements common to the college environment and is a percentage consistent with that experienced by civilian institutions of higher learning. The capacity analysis based on available classroom hours identified a 54 percent excess in net capacity of degree-granting institutions, leading the BSEC to direct a military value analysis be conducted of these activities.

Military Value Analysis

The military value matrix was developed after review of the BRAC-93 matrix, with modifications based on lessons learned, technical expert input, and matrices previously approved by the BSEC. The military value questions were grouped into eight subject areas, covering formal training mission; quality of life; training facilities,

equipment, and areas; encroachment, environmental issues, and ability for expansion; location; other support missions; ground training facilities; and maintenance, repair, and equipment expenditures. Primary emphasis was placed on individual activity capabilities, differentiating between special and unique capabilities. Quality of life was valued higher than in other subcategories, because training activities either provide the first introduction of the member to the military service or provide a brief respite from arduous sea-shore rotations.

The highest value accrued to those activities which accomplished a number of varied missions and could accommodate surge. The military value scores ranged from 28.01 to 58.17 (out of a possible 93.28 points), with 42.34 the overall average military value for all 29 activities. Within each group of training activities, the scores were fairly evenly distributed. Attributes which discriminated between activities were the range of training performed, special facilities and equipment, location, and quality of life.

Configuration Analysis

Configuration analysis was conducted using a linear programming model to develop solutions that minimized excess student throughput capacity in the training activities while meeting FY 2001 requirements and maintained an average military value no less than the current average. The capacity parameters, though consistent with those applied in the capacity analysis, were more specific (e.g., classroom and applied instruction space hours were specified in 10 seat equivalents, billeting in numbers of beds). Three rules were imposed on the configuration model. The first rule imposed training-site limitations that excluded collocation of specific functions if a critical facility was not present at an optional site. Critical facilities were defined as ranges that allowed surface projectile firings, libraries accommodating research at the undergraduate and graduate level, advanced specialization laboratories, facilities for team training, and competitive intercollegiate athletic facilities. The second rule required assignment of an entire school to a single location, which prevented redistribution that would split related and sequential courses of instruction. Finally, the model could place Trident-specific training only at the two Trident bases.

The configuration analysis identified the best, second best, and third best solution sets and then conducted sensitivity analyses to show what happens when FY 2001 requirements are increased by 10 and 20 percent and decreased by 10 percent. Configuration analysis was conducted on each of the four training activities groups separately, with the following results:

Recruit Training Activities. The initial solution output from the configuration model closed no recruit training activities, despite the presence of excess capacity. There were no feasible second or third options. The sensitivity analyses demonstrated that increasing the requirement necessitated all sites to remain open. Only when requirements were decreased 10 percent did the model suggest MCRD Parris Island could be closed.

Fleet Training Activities. The model's best solution recommended closing six activities (FCTCP, FTC Norfolk, FTC Mayport, FLEASWTRACENLANT, PHIBSCOLLANT, and PHIBSCOLPAC). The second solution also closed six activities, substituting FMWTC for FTC Mayport. The third solution mirrored the first solution, but left open FLEASWTRACENLANT. The sensitivity analyses showed that increasing the requirement presented no feasible solutions, while decreasing the requirement 10 percent closed combinations of the same seven activities.

Pipeline Training Activities. The initial solution output from the configuration model closed three schools (SUPSCOL, SWOSCOL, and ATC). The second solution proposed closure of SWOSCOL and SUPSCOL only, and the third recommended closure of SWOSCOL and ATC only. However, as with the other activity groups, when requirements were increased 10 percent, no feasible solution was available.

Degree-Granting Activities. While the best solution recommended closing NWC, in all other runs all three institutions remained open. No feasible solutions were generated with any increase in requirement.

Scenario Development and Analysis

The results of the configuration analysis provided the BSEC with a starting point for deliberations leading to scenario development. Although significant excess capacity remained under all solutions, the BSEC determined that the results did not provide a basis for conducting COBRA analyses on recruit training activities or degree-granting institutions. With regard to fleet training activities, the BSEC concluded that excess capacity would be best eliminated by shrinking the infrastructure in place so as to retain fleet training at fleet concentrations. Accordingly, COBRA scenario data calls were issued to consolidate the two Amphibious Schools and the FLEASWTRACENLANT with other fleet training activities. For pipeline training activities, the BSEC noted that the closure of NTTC, a tenant of NAS Meridian, was being costed under the NAS Meridian scenario. Examination of the excess capacity which would be eliminated as the result of NTTC revealed that this offered a viable solution to reduction of excess in pipeline training activities, particularly because NTTC has one of the lowest military values of those activities. Additional scenario data calls were issued to identify alternate receiving sites for several training activities affected by BRAC-93 actions. Finally, in light of the potential efficiencies achieved for Navy recruit training by the BRAC-93 consolidations, scenario data calls were issued to the MCRDs to determine whether similar efficiencies and cost savings could occur if all Marine recruit training consolidated at a single depot.

The BSEC reviewed the scenario data call responses in the context of anticipated military construction costs and manning requirements. Responses to the COBRA data calls indicated that FLEASWTRACENLANT had recently been consolidated into FTC Norfolk, independent of BRAC, and that the two Amphibious Schools had recently been absorbed into the newly created Expeditionary Warfare Training Groups (EWTGs).

Relocating those expanded functions incurred substantial one-time costs without apparent further training benefits, so these scenarios were dropped from further consideration. Similarly, analysis of the consolidation of the two MCRDs to a single site revealed limited training and fiscal efficiencies. Both scenarios would require substantial new construction and creation of additional support infrastructure. Further, the costs savings are misleading since they are derived largely from the elimination of military billets which would not in fact be removed from the force structure. Accordingly, the BSEC determined it would not recommend either MCRD for closure.

Several alternate receiving sites were evaluated for the closure of NTTC Meridian. The original scenario called for its relocation to NTC Great Lakes. However, that move would require substantial new construction, in the form of both additional bachelor quarters and training facilities, and could further burden the NTC, which is already undergoing substantial changes as the result of BRAC-93 decisions. The Chief of Naval Education and Training (CNET) suggested relocation of NTTC to the Navy Supply Corps School, Athens, Georgia and NETC Newport, to take advantage of consolidations with like training syllabi. Supply ratings training would be consolidated at the Navy Supply Corps School, while administrative training would relocate to NETC Newport. This closure not only offers a substantial return on investment, but it also reduces excess capacity in pipeline training and furthers training consolidations and efficiencies across several training communities.

The BSEC also evaluated the costs attendant to relocation of Nuclear Power Propulsion Training Center (NPPTC) from NTC Orlando. As part of the BRAC-93 decision to close NTC Orlando, NPPTC, a tenant, was directed to relocate to Submarine Base (SUBASE), New London, Connecticut, in anticipation of facilities becoming available as the result of the closure of the New London piers. The decision by the 1993 Commission to retain the piers at SUBASE New London created additional facility costs which made that relocation less cost-effective. The relocation of the NPPTC to the Weapons Station, Charleston, South Carolina is more fiscally attractive, and it generates additional training efficiencies since the Nuclear Propulsion Training Unit (moored training ships) is already located at WPNSTA Charleston.

Finally, the BSEC evaluated relocations of several schools which are part of the Service Schools Commands affected by the BRAC-93 closures of NTC San Diego and NTC Orlando. The language of the BRAC-93 recommendations required the Service School Commands to relocate to NTC Great Lakes. However, it was apparent that there was potential for greater training efficiencies elsewhere. In particular, the Messman "A" school could collocate with similar training at Lackland Air Force Base, rather than move to NAS Pensacola. Within the Navy, other schools were identified that could achieve greater synergy of training effort somewhere other than NTC Great Lakes. The COBRA analyses on these scenarios consistently demonstrated cost savings due to avoidance of military construction, and the BSEC determined to forward a recommendation that would

allow relocation of Service School Command schools in a manner more consistent with training requirements.

Conclusion

The requirement to eliminate excess capacity within the Training and Educational Centers subcategory was mitigated by requirements for operational and educational flexibility. The BRAC-93 assessment of the DON training establishment concentrated on the consolidation of Navy recruit training. The BRAC-95 effort sought to extend that consolidation effort across the remainder of the DON training community. Although training activities generally showed excess capacity, either mission requirements or excessive infrastructure costs did not permit consolidations within certain groups. In other cases, the evaluation revealed that initiatives outside of the base closure process were already underway that anticipated the kinds of consolidations possible. The focus of effort became consolidating where possible, as in the case of NTTC Meridian, and maintaining the flexibility to respond to changing training needs, as in the case of the Service Schools Commands redirect.

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ATTACHMENT G-1

RECOMMENDATION FOR CLOSURE

NAVAL TECHNICAL TRAINING CENTER, MERIDIAN, MISSISSIPPI

Recommendation: Close the Naval Technical Training Center, Meridian, Mississippi, and relocate the training functions to other training activities, primarily the Navy Supply Corps School, Athens, Georgia and Naval Education and Training Center, Newport, Rhode Island.

Justification: Projected manpower reductions contained in the DoD Force Structure Plan require a substantial decrease in training-related infrastructure consistent with the policy of collocating training functions at fleet concentration centers when feasible. Consolidation of the Naval Technical Training Center functions at two other major training activities provides improved and more efficient management of the these training functions and aligns certain enlisted personnel training to sites where similar training is being provided to officers.

Return on Investment: The return on investment data below applies to the closure of NAS Meridian, the closure of NTTC Meridian, the realignment of NAS Corpus Christi to an NAF, and the NAS Alameda redirect. The total estimated one-time cost to implement these recommendations is $83.4 million. The net of all costs and savings during the implementation period is a savings of $158.8 million. Annual recurring savings after implementation are $33.4 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $471.2 million.

Impacts:

Economic Impact on Communities: The economic data below applies to the closure of NAS Meridian and the closure of NTTC Meridian. Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 3324 jobs (2581 direct jobs and 743 indirect jobs) over the 1996-to-2001 period in the Lauderdale County, Mississippi economic area, which is 8.0 percent of economic area employment.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NAS Meridian, the host of this activity, will have a generally positive effect on the environment. Undergraduate Pilot Training will be relocated to NAS Kingsville, which is in an air quality control district that is in attainment for CO, ozone, and PM-10. Cleanup of the six IR sites at NAS Meridian will

continue. No impact was identified for threatened/endangered species, sensitive habitats and wetlands, cultural/historical resources, land/air space use, pollution control, and hazardous material waste requirements. Adequate capacity exists for all utilities at the gaining base, and there is sufficient space for rehabilitation or unrestricted acres available for expansion.

ATTACHMENT G-2

RECOMMENDATION FOR REALIGNMENT

NAVY NUCLEAR POWER PROPULSION TRAINING CENTER, NAVAL TRAINING CENTER, ORLANDO, FLORIDA REDIRECT

Recommendation: Change the receiving site specified by the 1993 Commission (1993 Commission Report, at page 1-38) for the "Nuclear Power School" (or the Navy Nuclear Power Propulsion Training Center) from "the Submarine School at the Naval Submarine Base (NSB), New London" to "Naval Weapons Station, Charleston, South Carolina."

Justification: The decision of the 1993 Commission to retain the submarine piers at Naval Submarine Base New London, Connecticut, meant that some of the facilities designated for occupancy by the Navy Nuclear Power Propulsion Training Center were no longer available. Locating this school with the Nuclear Propulsion Training Unit of the Naval Weapons Station, Charleston achieves an enhanced training capability, provides ready access to the moored training ships now at the Weapons Station, and avoids the significant costs of building and/or renovating facilities at New London.

Return on Investment: The total estimated one-time cost to implement this recommendation is $147.9 million. The net of all costs and savings during the implementation period is a savings of $19.5 million. Annual recurring savings after implementation are $5.3 million with a return on investment expected in one year. The net present value of the costs and savings over 20 years is a savings of $71.1 million.

Impacts:

Economic Impact on Communities: Since this action affects unexecuted relocations resulting from prior BRAC recommendations, it causes no net change in employment in the New London-Norwich, Connecticut NECMA economic area. However, the anticipated 2.3 percent increase in the employment base in this economic area will not occur.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The relocation of the Navy Nuclear Power Propulsion Training Center generally will have a positive impact on the environment. The receiving site is in an air quality district that is in attainment for CO, ozone and PM-10, and this relocation is not expected to have an adverse impact on that air quality status. Also, the utility infrastructure of the receiving site is sufficient to handle the additional personnel. There is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historic resources occasioned by this recommendation.

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ATTACHMENT G-3

RECOMMENDATION FOR REALIGNMENT

NAVAL TRAINING CENTERS REDIRECT

Recommendation: Change the recommendation of the 1993 Commission (1993 Commission Report, at page 1-38) concerning the closure of Naval Training Center, Orlando, Florida, by deleting all references to Service School Command from the list of major tenants. Change the recommendation of the 1993 Commission (1993 Commission Report, at page 1-39) concerning the closure of Naval Training Center, San Diego, California, by deleting all references to Service School Command, including Service School Command (Electronic Warfare) and Service School Command (Surface), from the list of major tenants.

Justification: Service School Command is a major component command reporting directly to the Commanding Officer, Naval Training Center, and, as such, is not a tenant of the Naval Training Center. Its relocation and that of its component courses can and should be accomplished in a manner "consistent with training requirements," as specified by the 1993 Commission recommendation language for the major elements of the Naval Training Centers. For instance, while the command structure of the Service School Command at Naval Training Center, Orlando Florida, is relocating to the Naval Training Center, Great Lakes, Illinois, the Torpedoman "C" School can be relocated to available facilities at the Naval Underwater Weapons Center, Keyport, Washington, and thus be adjacent to the facility that supports the type of weapon that is the subject of the training. Similarly, since the Integrated Voice Communication School at the Naval Training Center, San Diego, California, uses contract instructors, placing it at Fleet Training Center, San Diego, necessitates only the local movement of equipment at a savings in the cost otherwise to be incurred to move such equipment to the Naval Training Center, Great Lakes, Illinois. Likewise, the relocation of the Messman "A" School at Naval Training Center, San Diego, to Lackland Air Force Base results in consolidation of the same type of training for all services at one location, consistent with Department goals, and avoids military construction costs at Naval Air Station, Pensacola.

Return on Investment: The total estimated one-time cost to implement this recommendation is $5.9 million. The net of all costs and savings during the implementation period is a savings of $24.8 million. Annual recurring savings after implementation are $.2 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $25.8 million.

Impacts:

Economic Impact on Communities: Since this action affects unexecuted relocations resulting from prior BRAC recommendations, it causes no net change in

employment in either the Lake County, Illinois or the Pensacola, Florida MSA economic areas. However, the anticipated 0.1 percent increase in the Lake County employment base and the anticipated 0.1 percent increase in Pensacola, Florida the employment base will not occur.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The relocation of individual schools will have a minimal impact on the environment. Each is a tenant command and not a property owner. Each of the receiving sites was reviewed for impact on threatened/endangered species, sensitive habitats and wetlands, and cultural/historic resources, and no adverse impact was found. None of these schools are expected to have an adverse impact on the air quality of the areas to which it is relocating. The receiving sites have adequate capacity in their utility infrastructure to handle the additional personnel relocated by this recommendation.

ATTACHMENT H

DESCRIPTION OF ANALYSIS OF NAVAL AVIATION DEPOTS

The mission of Naval Aviation Depots (NADEPs) is to perform depot maintenance and repair across all aviation component mission areas. These activities, located at major fleet and Fleet Marine Force (FMF) aviation concentrations, are:

Naval Aviation Depot, North Island, California
Naval Aviation Depot, Jacksonville, Florida
Naval Aviation Depot, Cherry Point, North Carolina

The three activities perform in each of the three principal missions (airframes, components, and engines) to varying degrees. Additionally, NADEP Cherry Point serves both Navy and Marine forces as the rotary wing/vertical short take off and landing (VSTOL) center of excellence.

Data Call Development

The capacity and military value data calls were developed using the BRAC-93 data calls as starting points. Sets of questions were then expanded or compressed based on lessons learned for BRAC-93 and consultations with technical experts. The capacity data call was designed to capture throughput, measured in units and in direct labor man hours (DLMHs), required for performance in seven mission areas, including aircraft service support, airframes, components, engines, manufacturing, modifications, and training. As in the BRAC-93 round, to be consistent with standard DoD depot maintenance reporting, a notional 1-8-5 work schedule was used, which is a normal work schedule of eight hours per day, five days per week. Additionally, the data call requested information on core workload, facility measurements, and the potential for involvement in the Regional Maintenance Concept. A headquarters section was added to the data call to facilitate aggregating the individual NADEP data and to portray workload by funding and major customer.

The military value data call placed primary emphasis on identifying DON and DoD unique facilities, equipment, and skills. Questions sought information about individual NADEP capabilities, production workload, and strategic importance. Standardized modules assessing facilities and quality of life concerns were used. New questions were added querying roles in the emerging Regional Maintenance Concept. The costs and investments section was revised and expanded, as were the questions on environmental concerns.

Capacity Analysis

Capacity analysis was conducted by comparing the maximum potential capacity of the NADEPs to the workload programmed to support the FY 2001 force structure. Maximum potential capacity was derived from the certified responses to the capacity data call and calculated for airframes, components, aircraft support services, modifications, manufacturing, training, and engines workload. Each activity provided a determination of its total maximum potential capability in each of these areas, as well as an aggregate of all work performed, assuming ability to optimize hiring, training, facilitization, and procurement. This aggregated optimum was the calculation utilized as the primary measure of subcategory maximum capacity. This maximum capacity was compared to required capacity, determined from the reported programmed workload through FY 2001.

While throughput was measured in both units (e.g., numbers of airframes) and direct labor expended, capacity was analyzed in DLMHs only. Though the unit data provided a realistic portrait of operations, useful in understanding production flow and interrelationships, numbers of engines completed could not be compared to numbers of airframes. Accordingly DLMHs were used as a common measure across all mission areas. Additionally, the same measure (converted to direct labor hours (DLHs)) is the DoD standard for depot capacity measurement and was used by the Joint Cross-Service Group on Depot Maintenance (JCSG-DM) for its analyses.

The capacity analysis showed maximum potential capacity exceeded future requirements by approximately 38 percent across all mission areas, with the majority of the excess concentrated in the components and engines mission areas. The airframe mission area showed an excess of between 14-25 percent. The BSEC concluded that sufficient excess capacity existed to warrant analysis of military value.

Military Value Analysis

The military value matrix was developed after review of the BRAC-93 matrix, with modifications based on lessons learned, technical expert perspectives, and matrices already approved by the BSEC. The military value questions were grouped into seven subject areas, covering production, equipment and facilities, costs and investments, environment, strategic concerns, customers, and quality of life. Standardized modules assessing facilities, costs and investments, environmental, and quality of life concerns were adjusted to reflect the predominantly civilian workforce and distinctly industrial production mission at the activities. Questions were also included which addressed capabilities in missions primary to other subcategories (e.g., the measurement of life cycle support in conjunction with the Technical Center and Laboratory group analyses).

The military value scores ranged from 61.1 to 67.5 (out of 87.5 possible points), a very tight grouping as expected from a small group of similar sized activities. The

primary discriminators between activities were the variety of workload programmed into the activity, reflected in the equipment and facilities supporting that workload.

Configuration Analysis

Configuration analysis was conducted using a linear programming model to develop solutions that minimized excess capacity in the NADEPs while meeting FY 2001 requirements and maintained an average military value. The capacity parameter provided that the requirement within each major mission area (airframes, components, and engines) had to be met. Secondary mission area requirements and capabilities (manufacturing, modifications and service support) were proportionally allocated across the primary mission areas and were not applied as a separate configuration parameter. Standard sensitivity analyses were conducted, adjusting the requirement up 10 percent, down 10 percent and down 20 percent. In all cases, the model was unable to identify a combination of activities which provided an acceptable closure solution within the critical mission areas.

Additional sensitivity analyses were conducted to determine what reduction in requirements was necessary before the model identified an activity closure. This analysis showed that if the requirement was reduced by 34 percent, a solution which closed NADEP North Island was possible. That reduced requirement scenario result, however, contradicts DON policy that requires robust industrial depot capacity and capability proximate to major fleet concentrations.

Scenario Development and Analysis

The results of the configuration analysis provided the BSEC with a starting point for deliberations leading to scenario development. The BSEC determined that insufficient excess capacity existed within this subcategory for the closure of a complete naval aviation depot activity. However, the BRAC-93 decision to close three NADEPs included the movement of the whirl tower and dynamic component facility of the former NADEP Pensacola to either NADEP Cherry Point, the Corpus Christi Army Depot (CCAD), or the private sector. Insufficient requirement exists within DON for retention of these facilities. Review by the JCSG-DM determined that the DoD requirement can be wholly met with the assets at CCAD and NADEP Cherry Point, and the private sector has shown no interest in acquiring the facility. Accordingly, the BSEC directed issuance of a COBRA scenario data call to determine if this excess capacity could be eliminated. Review of the data call response revealed that not only is such a closure cost-effective, but the buildings which currently house the dynamic component facility could then be rehabilitated for use by the Naval Air Technical Training Center which is moving to NAS Pensacola as the result of a BRAC-93 decision. That rehabilitation will eliminate the need for some new military construction at NAS Pensacola.

The BSEC also determined that the NADEPs were ideal receiving sites under other recommendations proposed, which will absorb some of the excess capacity at the NADEPs. Under the closure of Naval Air Warfare Center, Lakehurst, considerable component and manufacturing workload is moved to NADEP Jacksonville, to include the overhaul of launch valves, optical landing systems, and other aircraft and support equipment components. Additionally, NADEP Jacksonville will perform Lakehurst's prototype manufacturing requirements and the manufacture and major overhaul of jet blast deflectors (JBDs), barricades, and crossdeck pennants (arresting cables). NADEP North Island will absorb the Naval Aviation Engineering Support Unit (NAESU) and the Naval Air Technical Services Facility (NATSF), capitalizing on the commonality between their life cycle support functions and the NADEP aircraft service support missions.

NADEPs were also examined by the JCSG-DM, which assessed their workload along functional lines. The majority of work was categorized by the JCSG-DM within the Aircraft and Air Systems commodity groups and was unique to these activities. Alternatives issued by the JCSG-DM suggested realignment of segments of functional workload by commodities from each of the three Naval Aviation Depots to other DoD depot maintenance activities. The BSEC issued COBRA scenario data calls on four scenarios arising from the JCSG-DM, to include one which examined application of the developing Regional Maintenance Concept to the closure of NADEP Jacksonville. The results of the COBRA analysis demonstrated that none of the scenarios resulted in a consolidation or interservicing distribution of workload which was more cost effective than the current DON configuration, although the results of the scenario which contemplated creation of a Regional Maintenance Activity Southeast suggest that some operational and economic efficiencies could be achieved. The BSEC concluded that prudent military judgement dictated that the application of the Regional Maintenance Concept to NADEP Jacksonville, with its radical restructuring of the principal industrial activity in this area's fleet concentration, is premature at this time and so declined to recommend it.

Conclusion

Previous base closure decisions had closed half of the Navy's aviation depot sites. While overall excess capacity might indicate potential for further closure, an analysis of the distribution of the excess across mission areas shows no useful configuration among the remaining NADEPs that would allow the closure of a complete NADEP. However, this evaluation lead to a recognition that it would be to the benefit of DON to eliminate excess capacity where possible. As a result, recommendations are included which dispose of the remaining excess industrial capacity at NADEP Pensacola and which absorb excess NADEP capacity by removing depot workload from technical centers and placing it at two of the NADEPs. These actions also enable DON to close a number of technical centers, which eliminates significant excess infrastructure in that subcategory.

ATTACHMENT H-1

RECOMMENDATION FOR CLOSURE

NAVAL AVIATION DEPOT, PENSACOLA, FLORIDA REDIRECT

Preliminary Candidate: Change the recommendation of the 1993 Commission (1993 Commission Report, at pages 1-42/43) by striking the following: "In addition, the Commission recommends that the whirl tower and dynamic components facility be moved to Cherry Point Navy or Corpus Christi Army Depots or the private sector, in lieu of the Navy's plan to retain these operations in a stand-alone facility at NADEP Pensacola."

Justification: Despite substantial reductions in depot maintenance capability accomplished in prior base closure evolutions, as force levels continue to decline, there is additional excess capacity that needs to be eliminated. Naval Aviation Depot, Pensacola was closed in BRAC-93, except for the whirl tower and dynamic components facility. Subsequent to that decision, no requirement for the facility has been identified within either the Army or the Navy, and insufficient private sector interest in that facility has been expressed. Additionally, the Depot Maintenance Joint Cross-Service Group (JCSG-DM) examined these functions in response to Congressional interest in reexamining the BRAC-93 action. The JCSG-DM determined that the Pensacola facilities could not independently fulfill the entire future DoD requirement, but that the Army facilities at Corpus Christi Army Depot, combined with the Navy facilities at NADEP Cherry Point, could. This recommendation will allow the disposal of the whirl tower and the rehabilitation of the dynamic components facility buildings for use by the Naval Air Technical Training Center.

Return on Investment: The total estimated one-time cost to implement this recommendation is $1.5 million. The net of all costs and savings during the implementation period is a savings of $2.4 million. Annual recurring savings after implementation are $.2 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $3.8 million.

Impacts:

Economic Impact on Communities: This recommendation will not affect any jobs in the Pensacola, Florida MSA economic area.

Community Infrastructure Impact: There is no community infrastructure impact since there are no receiving installations for this recommendation.

Environmental Impact: There are no known environmental impacts attendant to the disposal of these assets in place required by this recommendation, including impacts on air quality, threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources.

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ATTACHMENT I

DESCRIPTION OF ANALYSIS OF NAVAL SHIPYARDS

This subcategory is composed of five naval shipyard (NSYDs) and one ship repair facility (SRF), who function to satisfy the major maintenance and overhaul requirements of the operating fleet and to provide depot-level emergent and voyage repair to those ships. These activities, distributed on both the Atlantic and Pacific coasts of the continental United States and in the Pacific, are:

Naval Shipyard, Long Beach, California
Ship Repair Facility, Guam
Naval Shipyard, Pearl Harbor, Hawaii
Naval Shipyard, Portsmouth, New Hampshire
Naval Shipyard, Norfolk, Virginia
Naval Shipyard, Puget Sound, Bremerton, Washington

The normal distinction between a shipyard and a ship repair facility is that shipyards are generally found near fleet homeport concentrations, while ship repair facilities are responsive to deployment and operating areas.

Data Call Development

The capacity and military value data calls were developed using the BRAC-93 data calls as starting points. Sets of questions were then expanded or compressed based on lessons learned for BRAC-93 and consultations with technical experts. The capacity data call was designed to capture throughput, measured in events and in direct labor man years (DLMYs), required for performance in major mission areas, represented by thirty major maintenance work packages on nuclear and nonnuclear ship classes. As in the BRAC-93 round, to be consistent with standard DoD depot maintenance reporting, a notional 1-8-5 work schedule was used, which is a normal work schedule of eight hours per day, five days per week. A headquarters section was added to the data call to ensure a complete and comprehensive portrayal of the community of activities was obtained. In addition to providing the aggregated data for the various measurements reported within the activity sections of the data calls, the headquarters section asked the major claimant to specify the drydock capabilities of the facilities under their purview and core workload performance.

The military value data call placed primary emphasis on identifying DON and DoD unique facilities, equipment, and skills. Questions sought information about specific features and capabilities, including manpower factors, physical space available for industrial support, facility and equipment characteristics, and contingency and mobilization features. Standardized modules on ship berthing capability, quarters and

messing, and quality of life were used. New questions were added querying roles in the emerging Regional Maintenance Concept. The costs and investments section was revised and expanded, as were the questions on environmental concerns. The headquarters section of the military value data call asked the major claimant to define the role NSYDs played in the work accomplished within the Department of the Navy, the rest of DoD, and the private sector.

Capacity Analysis

Capacity analysis was conducted by comparing the maximum potential capacity of the NSYDs to the workload programmed to support the FY 2001 force structure. Maximum potential capacity was derived from the certified responses to the capacity data call and calculated for thirty different specified work packages which addressed the major platforms expected in the FY 2001 force structure. Each activity provided a determination of its total maximum potential capability for each of these work packages, as well as an aggregate of all work performed, assuming ability to optimize hiring, training, facilitization, and procurement. This aggregated optimum was the calculation utilized as the primary measure of activity maximum capacity. This maximum capacity was compared to required capacity, determined from the reported programmed workload through FY 2001.

While throughput was measured in both work packages and direct labor expended, capacity was assessed in DLMYs only. Though the event data provided a realistic portrait of operations, useful in understanding production flow and interrelationships, numbers of carrier availabilities are not directly comparable to numbers of submarine overhauls. Accordingly DLMYs were used as a common measure across all workload types. Additionally, the same measure (converted to direct labor hours (DLHs)) is the DoD standard for depot capacity measurement and was used by the Joint Cross-Service Group on Depot Maintenance (JCSG-DM) for its analyses.

The capacity analysis showed maximum potential capacity exceeded future requirements by approximately 29 percent, totalled across all mission areas. Capacity was also calculated by nuclear and nonnuclear workload capability. That analysis exhibited a 37.5 percent excess for nuclear workload capability and a 15.6 percent excess in nonnuclear workload. The BSEC concluded that sufficient excess capacity existed to warrant analysis of military value.

Military Value Analysis

The military value matrix was developed after review of the BRAC-93 matrix, with modifications based on lessons learned, technical expert perspectives, and matrices already approved by the BSEC. The military value questions were grouped into nine subject areas, covering drydocks, production workload, costs and manpower, environment, strategic factors, quality of life, crews of customer ships, operating factors and

contingency concerns. Standardized modules assessing facilities, costs, environmental, and quality of life concerns were adjusted to reflect the predominantly civilian workforce and distinctly industrial production mission at the activities.

As in BRAC-93, high value was given to the number and size of drydocks and the variety of shipwork programmed into a shipyard. In assessing military value, the BSEC acknowledged the fact that nonnuclear workload can be accomplished in nuclear capable shipyards, although the reverse is not true. Additionally, it was concerned that the physical assets of industrial maintenance complexes are increasingly difficult to replicate, and whatever was given up should be something that the Department was comfortable in never having again.

The military value scores ranged from 24 to 57.6 (out of 79.09 possible points), with the differences in score explained largely by gross activity size and the resultant capability that reflects. The primary discriminators between activities were the variety of workload programmed into the activity, reflected in the equipment and facilities supporting that workload.

Configuration Analysis

Configuration analysis was conducted using a linear programming model to develop solutions that minimized excess capacity in the NSYDs while meeting FY 2001 requirements and maintained an average military value. The parameters were based on capacity measured in DLMYs and the future workload requirements for both nuclear and nonnuclear work. The rules applied to the model provided that average military value must be maintained and that, in meeting workload requirements, nuclear workload must be accomplished at nuclear-capable shipyards. Nonnuclear work could be accomplished at any shipyard.

The configuration analysis identified the best, second best, and third best solution sets and then conducted sensitivity analyses to show FY 2001 requirements increased by 10 percent and decreased by 10 and 20 percent. Additional sensitivity analyses were conducted that showed the effect of retaining all nuclear shipyards, both with and without SRF Guam. The initial solution output from the configuration model closed three shipyards (Portsmouth, Long Beach, and Guam). The second solution output also closed three shipyards, substituting Pearl Harbor for Portsmouth. The third solution closed Portsmouth and Long Beach. Sensitivity analyses based on changes in requirements mirrored the initial outputs, while the analyses retaining all nuclear shipyards both closed Long Beach. Guam was also closed in the second of those analyses.

Scenario Development and Analysis

The results of the configuration analysis provided the BSEC with a starting point for deliberations leading to scenario development. Scenarios were investigated which

reflected a composite of the configuration model results, primarily the reduction of nonnuclear capability, and the Department determination in the 1991 era to return depot maintenance to the industrial depots from the technical centers and laboratories. The BSEC discussed the fact that prior BRAC shipyard closures and external international events have dramatically reduced this subcategory of activities since 1991. BRAC-91 closed NSYD Philadelphia and the docking assets at Hunter's Point, while the nuclear-capable shipyards at Charleston and Mare Island were closed in BRAC-93. SRF Subic was closed when American forces left the Philippines in 1992. As a result of these actions, the decisions concerning which of the remaining facilities can be regarded as truly excess is a most difficult one. The BSEC issued COBRA scenario data calls which closed, in various combinations, NSYD Long Beach, NSYD Portsmouth, SRF Guam, and the surge assets at NSYD Philadelphia which were retained after the closure of that shipyard in BRAC-91. Additionally, a data call was issued to remove ship/sea system workload from NUWC Keyport, NSWC Crane, and NSWC Louisville.

In reviewing the results of the COBRA analysis, the BSEC discussed the fact that the nature of ship work has changed dramatically over the recent past. The DON is now characterized by far fewer ship types, with more commonality between ship types and more complexity within ships' systems. Roles for the naval shipyards and ship repair facility have changed accordingly, as have maintenance cycles, the sequencing of repair work, and relationships with the private sector industrial base. Current shipyard capabilities reflect the increased responsiveness and flexibility required by these changes, with more sophisticated equipments, facilitization and cross-training the norm.

The major driver in the determination of future shipyard requirements is that the size and nature of the future fleet is particularly indefinite. Future decisions to refuel, defuel and inactivate individual and entire classes of ships will have significant impacts on nuclear workload, which dominates the total requirement for shipyards. This is particularly true of the attack submarine fleet, comprised principally of SSN 688 class submarines. National and political pressures are increasingly impacting the introduction of a replacement submarine, so the decision whether to defuel or to refuel the SSN 688 fleet, particularly in view of the relative youth of this class, is commensurately imprecise. Further, only one yard, Portsmouth, currently supports all SSN 688 requirements. While the private sector has met all nonnuclear and some nuclear requirements, it does not perform all requirements (in particular, SSN refuelings or defuelings), so that avenue is not available for contingency consideration. Accordingly, the BSEC determined that NSYD Portsmouth should be removed from consideration for closure because of its unique role as the center of excellence for the SSN 688 class submarines.

The Naval Shipyard at Long Beach is the only NSYD which performs nonnuclear shipwork exclusively, and its capacity is in excess of predicted future DON requirements. The continuing decreases in force structure eliminate the need to retain the capacity to drydock large deck naval vessels for emergent requirements, beyond what is available in

the private sector. The workload at NSYD Long Beach can be absorbed by the other nuclear-capable naval shipyards and private sector facilities.

Both SRF Guam and NSYD Pearl Harbor represent assets with significant strategic value. National policy requires operational presence of the fleets, which imposes geographic constraints on providing necessary support. These geographic constraints and deployment requirements drive retention of a maintenance capability in the Pacific. Retention of Pearl Harbor NSYD not only keeps its capability for nuclear work, but it also eases the impact of the closure of SRF Guam. Strategic support to deployed forces can be retained in Guam without maintaining the excess capacity to perform shipwork represented by the SRF.

BRAC-91 closed NSYD Philadelphia, a nonnuclear capable dockyard, retaining the propeller shop and deep draft drydocks with associated facilities as surge assets. Additionally, facilities were retained to accommodate two tenants, NAVSSES and NAVSEA INACTSHIPS DET Philadelphia. In view of the private sector's capability to meet surge workload and the existing excess within the remaining active naval shipyards complex, the drydocks retained in BRAC-91 are no longer necessary nor is their retention consistent with the BRAC objective to minimize excess capacity. Therefore, the BSEC decided to recommend the retained drydocks and associated surge docking facilities for closure.

Finally, during the BRAC-95 process, three of the Navy's technical centers identified regular programmed performance of significant depot maintenance workload on shipboard systems, particularly in ships' weapons systems. To achieve greater productivity efficiencies within the shipyards and to reduce excess capacity, this workload was moved into naval shipyards from two of these activities, NSWC Louisville and NUWC Keyport. The realignment of the ship workload from NSWC Crane proved to be impractical because of facilitization requirements. However, the workload relocated to NSWC Crane by the closure of NSWC Louisville should result in increased efficiencies.

These activities were also examined, in part, by the JCSG-DM, which assessed activities' workload along functional lines. The majority of work performed by naval shipyards was categorized by the JCSG-DM within the Sea Systems commodity group and was unique to these activities. Alternatives issued by the JCSG-DM suggested closure or realignment of segments of functional workload by commodities from each of the five naval shipyards to other DoD depot maintenance activities. The BSEC issued COBRA scenario data calls on ten scenarios arising from the JCSG-DM alternatives. The results of the COBRA analysis demonstrated that none of the scenarios resulted in a consolidation or interservicing distribution of workload which was more cost effective than the DON scenarios which were evaluated for this subcategory.

Conclusion

The excess capacity in the Naval Shipyards subcategory allows the closure of some activities. Long Beach NSYD, as the only nonnuclear shipyard, was the shipyard which was the least implicated in the BSEC's concerns over maintenance decision changes. Fleet commanders indicated a requirement for access to the infrastructure in Guam, but not necessarily a continuing presence. The closure of SRF Guam, with the retention of selected maintenance infrastructure, retains this access. Transfer of depot work from outside these six activities, notably the NAVSEA technical centers, reduces excess capacity without closure of additional depot activities. The uncertainty in the overall force structure, including the uncertain size of the SSN 688 submarine force, moderated the excess capacity sufficiently to require the retention of the remaining nuclear capable shipyards.

ATTACHMENT I-1

RECOMMENDATION FOR CLOSURE

SHIP REPAIR FACILITY, GUAM

Recommendation: Close the Naval Ship Repair Facility, Guam, except transfer appropriate assets, including the piers, the floating drydock, its typhoon basin anchorage, the recompression chamber, and the floating crane, to Naval Activities, Guam.

Justification: Despite substantial reductions in depot maintenance capability accomplished in prior base closure evolutions, as force levels continue to decline, there is additional excess capacity that needs to be eliminated. While operational and forward basing considerations require access to Guam, a fully functional ship repair facility is not required. The workload of SRF Guam can be entirely met by other Department of the Navy facilities. However, retention of the waterfront assets provides the DON with the ability to meet voyage repair and emergent requirements that may arise in the Western Pacific.

Return on Investment: The total estimated one-time cost to implement this recommendation is $8.4 million. The net of all costs and savings during the implementation period is a savings of $171.9 million. Annual recurring savings after implementation are $37.8 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $529 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 1321 jobs (663 direct jobs and 658 indirect jobs) over the 1996-to-2001 period in the Agana, Guam economic area, which is 2.0 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 10.6 percent of employment in the economic area. However, much of this impact involves the inclusion of MSC mariners in the job loss statement, which does not reflect the temporary nature of their presence on Guam.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of the Ship Repair Facility Guam will have a generally positive impact on the environment because a significant industrial operation will be closed, including the removal of stationary emission sources associated with this operation. This will be a benefit to an already positive air quality situation on Guam.

Further, this closure will not have an adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources.

ATTACHMENT I-2

RECOMMENDATION FOR CLOSURE

NAVAL SHIPYARD, LONG BEACH, CALIFORNIA

Recommendation: Close the Naval Shipyard Long Beach, California, except retain the sonar dome government-owned, contractor-operated facility and those family housing units needed to fulfill Department of the Navy requirements, particularly those at Naval Weapons Station, Seal Beach, California. Relocate necessary personnel to other naval activities as appropriate, primarily Naval Weapons Station, Seal Beach and naval activities in the San Diego, California area.

Justification: Despite substantial reductions in depot maintenance capability accomplished in prior base closure evolutions, as force levels continue to decline, there is additional excess capacity that needs to be eliminated. Force structure reductions by the year 2001 eliminate the requirement for the Department of the Navy to retain this facility, including its large-deck drydocking capability. As a result of BRAC-91, the adjoining Naval Station Long Beach was closed, and some of its assets were transferred to the naval shipyard for "ship support functions." Of those transferred assets, only those housing units required to fulfill Department of the Navy requirements in the local commuting area will be retained after closure of the naval shipyard.

Return on Investment: The total estimated one-time cost to implement this recommendation is $74.5 million. The net of all costs and savings during the implementation period is a savings of $725.6 million. Annual recurring savings after implementation are $130.6 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $1,948.6 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 13,261 jobs (4029 direct jobs and 9232 indirect jobs) over the 1996-to-2001 period in the Los Angeles-Long Beach, California PMSA economic area, which is 0.3 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 0.4 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of Long Beach Naval Shipyard will have a positive impact on the local environment. The removal of a major industrial activity from an area that is in non-attainment for CO, ozone, and PM-10 will be of substantial benefit to the air quality of this area. Similarly, the workload and small numbers of personnel being relocated to other activities are not expected to adversely impact the environment of geographic areas in which those activities are located. There are no adverse impacts to threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT I-3

RECOMMENDATION FOR CLOSURE

NAVAL SHIPYARD, NORFOLK DETACHMENT, PHILADELPHIA, PENNSYLVANIA REDIRECT

Recommendations: Change the recommendation of the 1991 Commission relating to the closure of the Philadelphia Naval Shipyard (1991 Commission Report, at page 5-28) to delete "and preservation" (line 5) and "for emergent requirements"(lines 6-7).

Justification: Despite substantial reductions in depot maintenance capability accomplished in prior base closure evolutions, as force levels continue to decline, there is additional excess capacity that needs to be eliminated. The contingency seen in 1991 for which the facilities at this closed shipyard were being retained no longer exists, and their continued retention is neither necessary nor consistent with the DON objective to divest itself of unnecessary infrastructure.

Return on Investment: The total estimated one-time cost to implement this recommendation is $32 thousand. The net of all costs and savings during the implementation period is a savings of $51.9 million. Annual recurring savings after implementation are $8.8 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $134.7 million.

Impacts:

Economic Impact on Communities: This recommendation will not affect any jobs in the Philadelphia, Pennsylvania-New Jersey PMSA economic area.

Community Infrastructure Impact: There is no community infrastructure impact since there are no receiving installations for this recommendation.

Environmental Impact: This recommendation completes the closure of the Philadelphia Naval Shipyard which began with BRAC-91. Since this is a closure with no realignment of functions, personnel or workload, there is no impact to threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

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ATTACHMENT J

DESCRIPTION OF ANALYSIS OF ORDNANCE ACTIVITIES

Naval Ordnance Activities provide secure storage for the full range of naval ordnance, support the safe receipt of that ordnance from other activities and the delivery of that ordnance to fleet units, and perform maintenance and inspection functions on the ordnance. This subcategory is composed of five Naval Weapons Stations (WPNSTAs), two Naval Ordnance Center Detachments (NOCDETs), two Naval Magazines (NAVMAGs), and the Strategic Weapons Facilities (SWFs), as follows:

Weapons Station, Concord, California
Naval Ordnance Center Detachment, Fallbrook, California
Weapons Station, Seal Beach, California
Strategic Weapons Facility, Kings Bay, Georgia
Naval Magazine, Guam
Naval Magazine, Lualualei, Hawaii
Weapons Station, Earle, New Jersey
Weapons Station, Charleston, South Carolina
Weapons Station, Yorktown, Virginia
Strategic Weapons Facility, Bangor, Washington
Naval Ordnance Center Detachment, Port Hadlock, Washington

All activities in this subcategory are characterized by qualifying Explosive Safety Quantity Distance (ESQD) arcs, which are uniquely required to store and outload explosive ordnance.

POMFLANT, a facility adjacent to WPNSTA Charleston which originally supported Polaris missiles, is being disestablished as an independent activity; its storage assets were included with WPNSTA Charleston for BRAC-95 evaluations. During the course of the BRAC-95 process, in a separate action, the Naval Magazine, Guam and the Naval Station, Guam were disestablished, and a new command, Naval Activities (NAVACTS), Guam was established. NAVACTS Guam retained the missions, functions, personnel, and facilities of the former NAVMAG.

Data Call Development

The capacity and military value data calls were developed using the BRAC-93 data calls as starting points. Sets of questions were then expanded or compressed based on lessons learned for BRAC-93 and consultations with technical experts. The capacity data call was designed to capture throughput, measured by the type and volume of weapons outloaded and stored. Additionally, the data call sought information on specific features

and capabilities of these activities, including manpower factors, physical space available for industrial support, facility and equipment characteristics, and contingency and mobilization features. Standardized modules on ships' berthing capability, training facilities, and quarters and messing were included.

The military value data call placed primary emphasis on storage capability and outload capabilities, production and maintenance facilities, equipment and facilities capabilities and characteristics, strategic concerns, and environment and encroachment concerns. Standardized modules assessing facilities and quality of life concerns were used.

Capacity Analysis

Capacity analysis was conducted by comparing the maximum storage capability of the Ordnance Activities, measured in tons and in square feet, to the FY 2001 storage requirement. The certified data call responses contained sufficient data from which to calculate both the maximum potential capacity at these installations and the anticipated requirement. The capacity analysis did not include assets identified as "pipeline" or "afloat," although this data was collected. For consistency of measurement and comparison, the square footage storage requirement was calculated in accordance with NAVSEAINST 8024.2, the applicable instruction for determination of storage requirements for types and volumes of weapons.

The capacity analysis also compared outload capability, measured in tons over the pier, by truck, and by rail, to requirements under both peacetime and wartime scenarios. This analysis is an expansion of the BRAC-93 approach to outload capacity and was conducted due to the recognition that a critical mission requirement is the ability to deliver ordnance safely in a mobilization and sustainment scenario. Mobilization and sustainment outload requirements were developed from wargame analyses conducted to support fleet ordnance requirements in a two MRC scenario, and are much higher than the peacetime operations requirement.

The capacity analyses showed that storage capacity exceeded requirements by 9 percent. For peacetime outload (over the pier), current capacity was determined to exceed future requirements by 75 percent. Under the wartime delivery and sustainment operations, current maximum potential capability was 61 percent short of the over the pier requirement. In assessing these results, the BSEC determined that the two SWFs should be removed from further consideration due to their unique role in support of strategic nuclear weapons and their integration into the operational activities with which they are collocated. The BSEC concluded that sufficient excess capacity existed to warrant analysis of military value.

Military Value Analysis

The military value matrix was developed after review of the BRAC-93 matrix, with modifications based on lessons learned, technical expert perspectives, and matrices already approved by the BSEC. The military value questions were grouped into seven subject areas, covering storage, outload capability, production maintenance, equipments and facilities, strategic concerns, environment and encroachment, and quality of life. The storage questions covered throughput capability, storage growth, utilization, and freedom of waivers to store. Outload capability was rated in terms of over the pier/vertical replenishment capability and history on a daily and on an annual basis. The ability to outload certain ship classes, to outload a number of ships simultaneously, and annual throughput were also valued. Production maintenance and effort were identified to maintain and repair mines, torpedoes, threat weapons, and level of effort (LOE) weapons, as were levels of effort expended for such workload as depot maintenance, design and repair of packaging and handling equipments, tactical and strategic weapons, combat systems and subsystems, and ordnance publications. Questions on equipments and facilities evaluated pier explosive weight capabilities, facility expenditures and conditions, berthing capabilities, and training to affiliated reserve units. Strategic concerns included other support requirements, access to open sea and to modes of land transport, ability to homeport naval vessels, explosive anchorage assets, and inhibitors to mission accomplishment. Standardized modules assessing facilities, costs and investments, environmental, and quality of life concerns were adjusted to suit this type of activity (e.g., these activities have a fairly significant military population but do not necessarily support homeported military units so do not require the full range of quality of life support facilities).

The military value scores ranged from 33.8 to 53.7 (out of a possible 84.2 points). The only clear discriminator was outload and production capabilities. The scores of each type of activities (weapons stations, naval magazines, and ordnance center detachments) tended to cluster together, which is consistent with the physical capacity of the activities.

Configuration Analysis

Configuration analysis was conducted using a linear programming model to develop solutions that minimized excess capacity in the Ordnance Activities while meeting FY 2001 requirements and maintained an average military value. The capacity parameter provided that the FY 2001 storage requirement in square feet had to be met. Standard sensitivity analyses were conducted, adjusting the requirement up 10 percent, down 10 percent and down 20 percent. Additionally, solutions were evaluated for their feasibility to ensure outload and maintenance requirements could be met with each proposed configuration under both peacetime and hostility scenarios. An additional model was run to show the effect of the removal of the two NAVMAGs from the equation. Outputs from the configuration model, including the sensitivity and feasibility solutions, produced various combinations of closures of WPNSTA Charleston, NOCDET Hadlock,

WPNSTA Seal Beach, WPNSTA Yorktown, NAVMAG Lualualei, NAVMAG Guam, and WPNSTA Earle.

Scenario Development and Analysis

The results of the configuration analysis provided the BSEC with a starting point for deliberations leading to scenario development. While the primary solution suggested by the model would reduce infrastructure within the activity group and still provide for the storage and peacetime outload requirements identified, the BSEC was concerned about the uncertainty of the actual future storage requirement and the outload requirements for surge (in support of mobilization and sustainment) which significantly exceed the normal peacetime effort. Storage uncertainty exists because of DoD's current difficulties in demilitarizing obsolete ordnance and in accommodating the rollback of ordnance from overseas storage, from storage assets closed in previous BRAC actions, and from retiring fleet assets, all of which are quickly filling up DoD assets. Further, the capacity analysis indicated that DON has a shortfall in outload capacity to meet the predicted requirement to support the threat assessment in the current Defense Planning Guidance. The BSEC therefore determined that no further analysis of this group of activities would be conducted.

Conclusion

Given the uncertainty of increasing requirements to store weapons, due to DoD-wide requirements for demilitarization of old ordnance and the rollback of munitions from overseas locations and retiring fleet assets, the DON cannot afford to give up any of its current storage capacity, particularly when replacing or recreating any current facility (and its accompanying ESQD arcs) at a later date would, in all likelihood, be impossible. Additionally, the DON capacity as it presently exists may well be insufficient to support future outload requirements. Accordingly, no realignments or closures of these Ordnance Activities are recommended.

ATTACHMENT K

DESCRIPTION OF ANALYSIS OF MARINE CORPS LOGISTICS BASES

This subcategory is composed of the two Marine Corps Logistics Bases (MCLBs) at Albany, Georgia and at Barstow, California. These activities provide the full range of depot and intermediate maintenance support for Marine Corps amphibious and ground equipment to the Atlantic and Pacific Fleet Marine Forces (FMFs), respectively. Additionally, the MCLBs provide comprehensive weapons systems management and logistics support to the operating forces. They are sited within one day's transport of every major Marine Corps CONUS operational base and Maritime Prepositioning Force (MPF) facility. The industrial portion of the Logistic Bases are alternatively referred to as the Repair Divisions at those locations or as the Marine Corps Multi-Commodity Maintenance Centers (MC^3).

Data Call Development

The capacity and military value data calls were developed using the BRAC-93 data calls as starting points. Sets of questions were then expanded or compressed based on lessons learned for BRAC-93 and consultations with technical experts. The capacity data call was designed to capture throughput, measured in both units and direct labor man hours (DLMHs) performed in ten major mission areas, including amphibious vehicles, combat vehicles, construction equipment, electronics and communications equipment, tactical vehicles, automotive equipment, general purpose equipment, missiles, ordnance, and other end items. As in the BRAC-93 round, to be consistent with standard DoD depot maintenance reporting, a notional 1-8-5 work schedule was used, which is a normal work schedule of eight hours per day, five days per week.

Reflecting the additional non-maintenance missions of the MCLBs, information was also obtained across the areas of major support provided, including inventory control functions of storage, distribution and contract support; weapons systems, readiness, maintenance, acquisition, material and configuration management; cataloging and data repository management; technical publications, engineering drawing support and printing management; technical assistance; reprocurement support; and clothing specification and design management. A headquarters section was added to the data call to ensure a complete and comprehensive portrayal of the MCLBs was obtained. In addition to providing the aggregated data for the various measurements reported by the MCLBs, the headquarters section asked the major claimant to specify customers and alternative sources of support.

Capacity Analysis

Capacity analysis was conducted by comparing the maximum potential capacity of the MCLBs to the workload programmed to support the FY 2001 force structure. Maximum potential capacity was derived from the certified responses to the capacity data call and calculated for ten major mission areas. The first five of these mission areas (amphibious vehicles, combat vehicles, construction equipment, electronics and communications equipment, tactical vehicles) were treated as primary capacity measures, the remaining five as secondary measures. Manufacturing and formal schools training were also measured. Maximum potential was calculated first for all ten primary and secondary measures anticipated through FY 2001. Each activity then provided a determination of its total maximum potential capability, aggregating its responses to the individual workload area and optimizing across all types of work. This maximum capacity was compared to required capacity, determined from the reported programmed workload through FY 2001.

While throughput was measured in both units and direct labor expended, capacity was assessed by DLMHs only. Though the unit data offered a realistic portrait of operations, useful in understanding production flow and interrelationships, numbers of engines completed are not directly comparable to numbers of tanks. Accordingly, DLMHs were used as a common measure across all mission areas. Additionally, the same measure (converted to direct labor hours (DLHs)) is the DoD standard for depot capacity measurement and was used by the Joint Cross-Service Group on Depot Maintenance (JCSG-DM) for its analyses.

Current capacity was determined to exceed future requirements by approximately 18 percent, aggregated across all mission areas. Since MCLB workload performance is characterized by the reconfiguration of production lines in accordance with the demand, isolated assessment of capacity measures individual to the ten major mission areas was not useful in this context. The BSEC concluded that sufficient excess capacity existed to warrant analysis of military value, particularly because these activities were included in the analysis being conducted by the JCSG-DM.

Military Value Analysis

The military value matrix was developed after review of the BRAC-93 matrix, with modifications based on lessons learned, technical expert perspectives, and matrices already approved by the BSEC. The military value questions were grouped into nine subject areas, covering production, equipment and facilities, quality of life, costs and investments, environment, customers, support services, strategic factors, storage, and training. The military value analysis placed primary emphasis on individual executed production workload and capabilities. Standardized modules assessing facilities, costs and investments, and strategic, environmental, and quality of life concerns were adjusted for this subcategory (e.g., the volume and nature of the quality of life questions used reflect

the military-civilian workforce mix and the mixed industrial production and logistic support missions at the MCLBs). The highest value was given to production and equipment and facilities.

While both locations provide the complete range of services, the two sites can be differentiated by the degree to which they perform various functions. For example, all Weapon Systems Management functions are consolidated at Albany, while Barstow has the lead for night vision devices and M198 howitzers. Though Albany, by virtue of its proximity to the Blount Island MPF facility, is more focused on the MPF program, Barstow also actively assists the MPF squadrons in operations and exercises in Okinawa, Hawaii, Guam and Diego Garcia. Barstow is the DoD-identified sole source of repair for PPN-19 radar beacons and AN/TPS-59 radars. Albany is the similar source for SB-3614 and AN/TPS-63 radars. As would be expected in a group of only two activities which so closely parallel each other in mission, requirements, and customers, the military value analysis did not provide a clear differentiation. MCLB Albany received a score of 68.2 while MCLB Barstow was scored at 63.1 (out of 93 possible points). The only area in which a discrimination was evidenced was that of support services management, which is concentrated at Albany.

Configuration Analysis

Configuration analysis was conducted using a linear programming model to develop solutions that minimized excess capacity in the MCLBs while meeting FY 2001 requirements and maintained an average military value. As with other categories where the capacity had been aggregated across disparate capabilities, the requirement within each major mission area (amphibious vehicles, combat vehicles, construction equipment, electronics and communications equipment, and tactical vehicles) had to be met. The secondary mission area requirements and capabilities (automotive equipment, general purpose equipment, missiles, ordnance, and other end items) were proportionally allocated across the primary mission areas and were not applied as a configuration parameter. Standard sensitivity analyses were conducted, adjusting the requirement up 10 percent, down 10 percent and down 20 percent. In all cases, the model was unable to identify any combination which provided an acceptable closure solution within the critical mission areas.

Sensitivity analyses were then run to determine what reduction of requirement was necessary before a closure was workable. This analysis showed that if requirements were reduced by 34 percent, the configuration analysis proposed the closure of MCLB Barstow. Given the requirement to maintain average military value from a universe of two activities, this was the only solution possible.

Scenario Development and Analysis

The results of the configuration analysis provided the BSEC with a starting point for deliberations leading to scenario development. Noting that the only configuration solution which closed a logistics base assumed an unrealistic reduction in requirements, the BSEC determined that insufficient excess capacity exists to recommend the closure of a complete MCLB.

These activities were also examined, in part, by the JCSG-DM, which assessed the workload of the MC^3 facilities within the MCLBs along functional lines. Alternatives issued by the JCSG-DM suggested realignment of workload along specific commodity lines from both of the two MCLBs to other DoD depot maintenance activities. The BSEC issued COBRA scenario data calls on two scenarios which included the MCLBs arising from the JCSG-DM alternatives. The results of the COBRA analysis demonstrated that neither resulted in a consolidation or interservicing distribution of workload which was more cost effective than the current DON configuration.

Conclusion

Capacity and configuration analyses revealed that neither of the two MCLBs had sufficient excess capacity to allow closure of the other base. As full service depots which handle not only all logistic functions but also have sizeable training, basing and storage missions, the MCLBs are unique among DoD ground industrial maintenance facilities. Specifically tied to the operating forces, each reflects the high degree of daily deployment necessitated by the short lead nature of DON operational commitments. Joint alternatives studied demonstrated that it was more cost effective to retain workload in house than to shift select functional areas to other DoD depots, even with some excess capacity remaining as overhead. Therefore, neither Marine Corps Logistics Base is recommended for closure.

ATTACHMENT L

DESCRIPTION OF ANALYSIS OF INVENTORY CONTROL POINTS

This Inventory Control Points (ICPs) subcategory was composed of the Aviation Supply Office (ASO), located in Philadelphia, Pennsylvania and the Ships Parts Control Center (SPCC), located in Mechanicsburg, Pennsylvania. These activities provide worldwide wholesale inventory control for all naval fleet units and program logistics support for naval weapons systems.

Data Call Development

The capacity and military value data calls were developed using the BRAC-93 data calls as starting points. Sets of questions were then expanded or compressed based on lessons learned for BRAC-93 and consultations with technical experts. The capacity data call was designed to capture throughput, measured in total government workyears performed. Information was also requested on subsidiary workload categories of Weapons Systems Program Support, Security Assistance workyears, and Requisition Volume, as subsets of the total work performed. The data call obtained both actual performed workload at each command, from FY 1986 to the present, and programmed workload through FY 2001. The data calls also requested information on specific features and capabilities of each activity, including manpower factors, physical space available for industrial support, facility and equipment characteristics, and contingency and mobilization features. Standard modules on quality of life, costs and investments, and environmental issues were included.

Capacity Analysis

Capacity analysis was conducted by comparing the maximum potential capacity of the ICPs to the workload programmed to support the FY 2001 force structure. The maximum potential capacity was determined for both individual and aggregated throughput measures based on the maximum historic performance levels for the period FY 1986-1993. The average of those levels for each ICP was summed to determine a maximum potential for the subcategory. This maximum capacity was compared to required capacity, determined from the reported programmed workload through FY 2001. Maximum capacity for the Inventory Control Points was determined to exceed future requirements by approximately 48 percent.

Maximum potential capacity was also calculated for the secondary measures, the subordinate collections of workload anticipated through the outyears. While the weapons systems program support paralleled the aggregate capacity analysis in identifying significant excess capacity, the other secondary measures remained relatively constant.

The BSEC concluded that sufficient excess capacity existed to warrant analysis of military value.

Military Value Analysis

The military value matrix was developed after review of the BRAC-93 matrix, with modifications based on lessons learned, technical expert perspectives, and matrices already approved by the BSEC. The military value questions were grouped into six subject areas, covering customer service support, features and facilities, costs and investments, environment, quality of life, and strategic factors. Standardized modules assessing facilities, costs and investments, environmental, and quality of life concerns were adjusted for this subcategory to reflect the predominantly civilian workforce and distinct mission at the activities. Primary emphasis in the evaluation was placed on individual executed workload as reflected in questions pertaining to customer service support.

As would be expected in a group of only two activities which so closely parallel each other in mission and requirements, the military value analysis did not provide a clear differentiation. SPCC received a score of 58.1, while ASO was scored at 55.8 (out of 94.2 possible points). The two commands are differentiated primarily by those functions in which each specializes (i.e., support to aviation units or to ships).

Configuration Analysis

Configuration analysis was conducted using a linear programming model to develop solutions that minimized excess capacity in the ICPs while meeting FY 2001 requirements and maintained an average military value. Standard sensitivity analyses were conducted, adjusting the FY 2001 requirement up 10 percent, down 10 percent, and down 20 percent.

The initial solution output from the configuration model closed ASO. The sensitivity analyses which increased the requirement closed no ICP, while the two which reduced the requirement both showed ASO closed. Given the requirement to maintain average military value from a universe of two activities, this was the only solution possible since SPCC has both a higher military value and a larger capacity.

Scenario Development and Analysis

The results of the configuration analysis provided the BSEC with a starting point for deliberations leading to scenario development. The capacity reduction shown by the configuration runs appeared very efficient, suggesting that consolidation of those functions into SPCC would eliminate all but 7.6% of the total excess. Accordingly, the BSEC issued two scenarios which closed ASO. In one, ASO closed and consolidated at SPCC;

in the other, ASO closed and consolidated at SPCC but transferred ASO's compound host responsibilities to its largest tenant, DLA.

After a rigorous review, the COBRA analyses suggested that such a closure would eventually payoff, though one-time costs were quite large. The responses to the data calls indicated that, over the last year, the Naval Supply Systems Command (NAVSUP) has restructured the ICPs by "consolidating in place," to eliminate the large amount of excess capacity identified during BRAC-93. As a result, savings resulting from elimination of personnel were not possible, since significant reductions in the workforce have already occurred. Given these results, the BSEC determined that it would not forward a recommendation to close ASO.

Conclusion

Despite the capacity analysis which demonstrated significant excess capacity, the recommendation to close ASO and consolidate those functions at SPCC was not endorsed for two reasons. First, the gap between attributed costs and savings was most likely to narrow under the realities of implementation, resulting in an even narrower benefit between costs and savings and extending the payoff unacceptably. Secondly, the BSEC acknowledged that NAVSUP has been particularly vigorous in its efforts to restructure the ICPs independent of and external to the BRAC process, and so no further consolidation is required. The consolidation suggested by the BRAC-95 process might well disrupt those efforts, as well as the synergy which currently exists between ASO and DLA within the Philadelphia compound.

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ATTACHMENT M

DESCRIPTION OF ANALYSIS OF SHORE INTERMEDIATE MAINTENANCE ACTIVITIES

The activities evaluated in this subcategory provide intermediate level maintenance support to local fleet units. This subcategory is composed of twelve Shore Intermediate Maintenance Activities (SIMAs) and two TRIDENT Refit Facilities (TRFs) , as follows:

Shore Intermediate Maintenance Activity, San Diego, California
Shore Intermediate Maintenance Activity, New London, Connecticut
Shore Intermediate Maintenance Activity, Mayport, Florida
TRIDENT Refit Facility, Kings Bay, Georgia
Shore Intermediate Maintenance Activity, Pearl Harbor, Hawaii
Repair Department, Naval Submarine Base, Pearl Harbor, Hawaii
Shore Intermediate Maintenance Activity, Pascagoula, Mississippi
Shore Intermediate Maintenance Activity, Earle, New Jersey
Shore Intermediate Maintenance Activity, Ingleside, Texas
Shore Intermediate Maintenance Activity, Little Creek, Virginia
Shore Intermediate Maintenance Activity, Norfolk, Virginia
Shore Intermediate Maintenance Activity, Portsmouth, Virginia
TRIDENT Refit Facility, Bangor, Washington
Shore Intermediate Maintenance Activity, Everett, Washington

Individual SIMAs often specialize in either surface or subsurface vessels, reflecting the composition of the contiguous fleet concentration. The TRFs provide both intermediate and depot level maintenance, particularly for the SSBN 726 class submarines. The SIMAs at Ingleside and Everett are jointly designated Naval Reserve Maintenance Facilities (NRMFs).

Data Call Development

This subcategory was not individually assessed in prior BRAC rounds, so no capacity and military value data calls existed to use as a baseline. However, they had been included in the data calls of their host commands in previous BRACs. Those sections were extracted and expanded using the approach applied to other groups of industrial activities, including use of the standardized modules. Team members met with representative technical experts prior to constructing these data calls, and both were submitted to the affected commands for comments and clarifications prior to issuance of the final data calls.

Extracts from the SIMA portions of the Naval Station data calls used in the BRAC-93 process formed the starting point for BRAC-95 data call development. The

capacity data call was designed to capture throughput, measured in direct labor man hours (DLMHs) performed, both by ship packages and by a functional breakout. Though these activities perform predominantly intermediate maintenance, the level of effort for depot workload was also sought. The data calls sought to identify specific features and capabilities of each activity, including manpower factors, physical space available for industrial support, facility and equipment characteristics, and contingency and mobilization features. Standardized modules on ships' berthing capability and quarters and messing were included. The activities were also queried on their roles in the emerging Regional Maintenance Concept.

Capacity Analysis

Capacity analysis was conducted by comparing the maximum potential capacity of the SIMAs and TRFs to the workload programmed to support the FY 2001 force structure. Maximum potential capacity was derived from the certified responses to the capacity data call and calculated for both nuclear and nonnuclear workload. Each activity provided a determination of its total maximum potential capability for each work package, as well as an aggregate of all work performed, assuming ability to optimize hiring, training, facilitization, and procurement. This aggregated optimum was the calculation utilized as the primary measure of activity maximum capacity. This maximum capacity was compared to required capacity, determined from the reported programmed workload through FY 2001.

The capacity analysis showed that maximum potential exceeded future requirements by approximately 27.7 percent, totalled across all mission areas. Capacity was also calculated by nuclear and nonnuclear workload capability. The secondary analysis reflected the predominance of nonnuclear capability (90 percent) and requirement (93 percent), with nonnuclear excess at 24.6 percent and nuclear excess at 54.6 percent. No deficiencies emerged when the capability was reviewed against the fleet distribution along the Atlantic, Pacific and Gulf coasts. The BSEC concluded that sufficient excess capacity existed to warrant analysis of military value.

Military Value Analysis

The military value was developed consistently with those used in other subcategories for the BRAC-95 process. The majority of questions concentrated on executed production workload. Only ship classes which are anticipated to be in the inventory as of FY 2001 were included in the matrix. Standardized modules assessing facilities, costs and investments, the emerging regional maintenance concept, environmental and quality of life concerns were included. The QOL section was adjusted to reflect the predominantly military staff and tenant nature of this group; the questions paralleled those asked the parent installation and were scored using the host answers.

The military value questions were grouped into four subject areas, covering production workload, facilities and environment, operations, and quality of life. Highest value was given to production workload. The military value scores ranged from 23.4 to 75 (out of 99.1 possible points), with the activities spread fairly evenly through that range. The primary discriminator between the activities was the variety of shipwork performed, which was a direct result of the homeported ships to which the activity provided services. The greater the variety of ship types serviced, the higher the score.

Upon review of the results of the military value analysis, the BSEC recognized that these activities are so closely defined by the fleet composition homeported at its host that independent evaluation was of little benefit. Since their workload depends on what they are assigned from the fleet, the operative question was what fleet assets would be assigned at any given naval station. The BSEC determined that it would defer evaluation of SIMAs until decisions were made on recommendations regarding the dispositions of the hosts. Upon review of the recommendations regarding naval stations, the BSEC determined to recommend no action for this subcategory.

Conclusion

None of the final Department recommendations involved these tenant activities. Force structure reductions are expected to reduce commensurately the requirement for these intermediate maintenance activities. As the fleet downsizes, the requirement for intermediate maintenance at fleet concentrations will diminish. Unlike most depot activities, the commands within this subcategory are staffed primarily with military personnel. This structure enables adjustment of their end strength through regular internal procedures as force structure and operational requirements dictate. The refinement of the Regional Maintenance Concept can also be expected to generate realignments of capabilities within some of these activities, along with the Aircraft Intermediate Maintenance Departments (AIMDs) and other depot activities within major fleet concentrations.

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ATTACHMENT N

DESCRIPTION OF ANALYSIS OF FLEET AND INDUSTRIAL SUPPLY CENTERS

The Fleet and Industrial Supply Centers (FISCs), formerly Naval Supply Centers, are the activities providing consolidated supply services and logistics support to afloat and ashore operating forces and industrial activities. This subcategory includes nine FISCs, as follows:

Fleet and Industrial Supply Center, Oakland, California
Fleet and Industrial Supply Center, San Diego, California
Fleet and Industrial Supply Center, Jacksonville, Florida
Fleet and Industrial Supply Center, Guam
Fleet and Industrial Supply Center, Pearl Harbor, Hawaii
Fleet and Industrial Supply Center, Charleston, South Carolina
Fleet and Industrial Supply Center, Norfolk, Virginia
Fleet and Industrial Supply Center, Cheatham Annex, Norfolk, Virginia
Fleet and Industrial Supply Center, Puget Sound, Washington

A key contributor to the readiness of fleet units and organic industrial activities, a FISC can also provide consolidated management of Navy-owned inventory and stock funds for shore based customers within a defined region. Functions performed include customer service (husbanding and chandler services, technical support, expediting of requisitions, and Foreign Military Sales logistics support), inventory management, SERVMART, contracting, quality of life (personal property, bachelor quarters management, galley, and habitability), and fuel.

Data Call Development

The capacity data call was developed after a review and validation of the BRAC-93 capacity measures of throughput (requisitions processed, contracts awarded, fuel issues, and workyears) and physical facility (administrative, warehouse, and fuel storage) capacity. Questions were written to capture capability and capacity to provide the full range of supply services and inventory management functions that are the mission areas of the traditional FISC. Technical experts from the Naval Supply Systems Command assisted in providing the specific measures used in the capacity data call. The standard approved modules for infrastructure, bachelor quarters/housing/messing, real estate holdings, and pier berthing capacity were also added to the data call.

The military value data call asked who the FISCs' customers were and what alternatives existed for obtaining the support or service elsewhere for each major mission area. It also sought to capture unique capabilities, facilities, and/or equipment present at

the FISCs that added value to each mission area. Questions on historic and planned capital improvements were included to capture information about base infrastructure and investment. Other military value questions captured availability and condition of land, environmental issues, contingency and mobilization features, stand alone factors, and weather impact on operations. The standard set of quality of life questions was included also.

Capacity Analysis

The principal capacity measure for the FISC subcategory was workyears, since FISC products and services, such as contracts awarded, fuel issued, and requisitions processed, all can be measured in workyears. The capacity analysis compared maximum work performed in prior years in each of these areas to projected work requirements through FY 2001. Maximum capacity was defined as the high water mark during the period of time from 1989 to 1993. This convention yielded a historical capacity estimate which sought to identify the maximum number of personnel that could be sustained within the current FISC infrastructure. The requirement for FY 2001 was obtained from the certified data from the activities. The capacity analysis showed excess capacity ranging from 8 percent to 57 percent in these product and service areas. Accordingly, the BSEC concluded that sufficient excess capacity existed at FISCs to warrant a military value analysis.

Military Value Analysis

The matrix developed for military value analysis was modeled on the BRAC-93 Naval Supply Center matrix, with modifications based on lessons learned, technical expert perspectives, and matrices previously approved by the BSEC. The focus of the FISC matrix was to capture the logistics and supply support services to be provided to the customer base that will exist in 2001. Operations/customer support services questions captured the throughput capability for providing traditional logistics and supply support services to the FISC customer base, as well as additional services being provided by the FISC. Operational infrastructure questions captured the relationship to fleet concentration areas, strategic or geographic considerations, access to transportation modes, ship berthing capabilities, and availability of unique facilities or equipment. Fiscal aspects of the FISC were covered in questions relating to base infrastructure and investment. The environment, encroachment and expansion section used the standard module with only minor modifications to capture FISC-unique environmental issues. The quality of life questions were modelled on the previously approved Inventory Control Point matrix due to the similarly high ratio of civilians to military personnel in the composition of the workforce.

The BSEC placed high value weights on operations/customer support services and operational infrastructure as being in direct support of readiness. The most valuable characteristics focused on being part of a major fleet concentration, large requisition

processing capability, contracting and fuel issue throughput capacity, unique facilities or equipment, and capability to support overseas replenishment of ships or overseas activities. Quality of life considerations had relatively lower importance than other subcategories of activities due to the small active duty population in FISCs. FISC military value scores ranged from a low of 25.83 to a high of 73.36 out of 88.98 possible points. FISC Norfolk and FISC Puget Sound received the highest military value scores, due to the larger customer base, their trend of growth, their longer list of services provided, and their proximity to areas of significant fleet and industrial concentration. FISC Charleston and FISC Oakland had the lowest military value scores, primarily because of lack of fleet and industrial customers due to prior base closures and the resulting downsizing and reduction in services provided.

Configuration Analysis

Configuration analysis was conducted using a linear programming model that sought to minimize excess capacity in FISCs, while maintaining an average military value at least as great as the current average for all FISCs. The model's results provided the BSEC with a starting point for deliberations leading to scenario development. The model's parameters for FISCs were maximum capacity in terms of workyears and workyear requirements in FY 2001. The model's rules were that the average military value of the FISCs left open must be at least equal to the average military value of all FISCs considered and that any FISC that supported, at any fleet concentration, at least three out of five major Department of the Navy functional mission areas (aviation, surface, sub-surface, depot, and USMC ground) must be retained. This rule was based on the fleet input that dedicated supply and acquisition support be provided to areas of major fleet and organic industrial concentrations.

The configuration analysis identified the best, second best and third best solution sets and then conducted sensitivity analyses which changed the workyear requirement in FY 2001 up 10 percent, down 10 percent, and down 20 percent. The initial solution output from the configuration model closed three FISCs (Charleston, Guam, and Oakland) and eliminated 3,530 workyears. The second solution output closed only Charleston and Oakland and eliminated 3,117 workyears. The third solution output closed Charleston and Guam and eliminated 1,513 workyears. The sensitivity analyses solution sets were identical to the initial outputs.

Scenario Development and Analysis

The results of the configuration analysis provided the BSEC with a starting point for deliberations leading to scenario development. Although the model results left significant excess under all solutions, the BSEC determined that the results were reasonable given the requirement to provide dedicated support to areas of fleet and industrial concentration. Since the model's initial solution reduced the most excess

capacity, the BSEC released a COBRA scenario data call to collect further cost information on the closure of the FISCs at Charleston, Guam and Oakland.

The COBRA analysis demonstrated that the mission for FISC Charleston would cease by 1997. Many of the functions which FISC Charleston performed, and the personnel associated with those functions, have been absorbed by the Navy In-Service Engineering organization which is consolidating in Charleston as the result of BRAC-93 decisions. Some minor local movement costs and minimal overhead costs resulted in a two year return on investment. Two COBRA alternatives were considered for FISC Guam, with different receiving sites for the AFS Loadout/Resupply and Diego Garcia Support missions. In view of the possibility of a future rollback from Japan, the BSEC decided not to consider the movement of assets to FISC Yokosuka. Rather, the BSEC determined that FISC Pearl Harbor was underutilized and could readily absorb the AFS and Diego Garcia support missions. The FISC Oakland COBRA analysis obtained an immediate return on investment with reasonable costs and savings. However, it was eliminated by the SECNAV based on his concern over eliminating additional civilian jobs in the area.

Conclusion

The Fleet and Industrial Supply Centers mission is based on the presence of other DON industrial or fleet activities. FISC Charleston has seen all missions removed with the relocation of fleet and Navy industrial concentrations from the Charleston area. The BRAC-95 recommendations to close SRF Guam and the realignment of the MSC presence from Guam removes the two principal customers for FISC Guam. It becomes cost-effective and prudent to consolidate supply functions in Norfolk, Jacksonville, and Pearl Harbor and to close both FISC Charleston and FISC Guam.

ATTACHMENT N-1

RECOMMENDATION FOR CLOSURE

FLEET AND INDUSTRIAL SUPPLY CENTER, CHARLESTON, SOUTH CAROLINA

Recommendation: Close the Fleet and Industrial Supply Center, Charleston, South Carolina.

Justification: Fleet and Industrial Supply Centers are follower activities whose existence depends upon active fleet units in their homeport area. Prior BRAC actions closed or realigned most of this activity's customer base, and most of its personnel have already transferred to the Naval Command, Control, and Ocean Surveillance Center, In-Service Engineering, East Coast Division, Charleston, South Carolina. Further, in accordance with the FY 2001 Force Structure Plan, force structure reductions through the year 2001 erode the requirement for support of active forces even further. This remaining workload can efficiently be handled by other FISCs or other naval activities.

Return on Investment: The total estimated one-time cost to implement this recommendation is $2.3 million. The net of all costs and savings during the implementation period is a savings of $2.3 million. Annual recurring savings after implementation are $.9 million with a return on investment expected in two years. The net present value of the costs and savings over 20 years is a savings of $10.8 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 12 jobs (8 direct jobs and 4 indirect jobs) over the 1996-to-2001 period in the Charleston-North Charleston, South Carolina MSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 8.4 percent of employment in the economic area.

Community Infrastructure Impact: There is no community infrastructure impact since there are no receiving installations for this recommendation.

Environmental Impact: This activity is located in an area that is in attainment for CO, ozone and PM-10. This closure will support the maintenance of this air quality status and will have a further positive impact on the environment in that it eliminates barge movements in and out of the pier area as part of the fueling operations in the FISC complex. An additional positive impact is the elimination of military activities in an area

occupied by the Least Tern, an endangered species, and its designated habitat aboard the present FISC Charleston complex. There will be no adverse impact on cultural/historical resources occasioned by this recommendation.

ATTACHMENT N-2

RECOMMENDATION FOR CLOSURE

FLEET AND INDUSTRIAL SUPPLY CENTER, GUAM

Recommendation: Disestablish the Fleet and Industrial Supply Center, Guam.

Justification: Fleet and Industrial Supply Centers are follower activities whose existence depends upon active fleet units in their homeport area. Prior and current BRAC actions closing both Naval Air Station, Guam and a portion of Naval Activities, Guam have significantly reduced this activity's customer base. The remaining workload can efficiently be handled by other activities on Guam or by other FISCs.

Return on Investment: The total estimated one-time cost to implement this recommendation is $18.4 million. The net of all costs and savings during the implementation period is a savings of $143 million. Annual recurring savings after implementation are $31.1 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $437.3 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 580 jobs (413 direct jobs and 167 indirect jobs) over the 1996-to-2001 period in the Agana, Guam economic area, which is 0.9 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 10.6 percent of employment in the economic area. However, much of this impact involves the inclusion of MSC mariners in the job loss statement, which does not reflect the temporary nature of their presence on Guam.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The Guam Air Pollution Control District is in attainment for CO, ozone, and PM-10. Closure of this activity will remove POV sources of air emissions, thus enhancing the air quality of Guam. A significant factor further contributing to an overall positive impact on the environment in Guam is the shutdown of fueling facilities at Guam, specifically at Sasa Valley and Tenjo. Not only does this action eliminate the need for continuous monitoring of fuel tanks but it also removes the potential for a fuel spill in an area that has been designated as part of the Guam National Wildlife Refuge. The elimination of military actions in areas occupied by the indigenous endangered species, the Common Moorhen, and in and near wetlands also will contribute positively to the environment in Guam.

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ATTACHMENT O

DESCRIPTION OF ANALYSIS OF PUBLIC WORKS CENTERS

Public Works Centers (PWCs) provide shore station support in all aspects of public works management, maintenance and repair of facilities, planning and design services, and contracts functions, primarily on a reimbursable basis, to naval activities within their area of responsibility. This subcategory is composed of eight activities, as follows:

Public Works Center, San Diego, California
Public Works Center, Jacksonville, Florida
Public Works Center, Pensacola, Florida
Public Works Center, Guam
Public Works Center, Pearl Harbor, Hawaii
Public Works Center, Great Lakes, Illinois
Public Works Center, Norfolk, Virginia
Public Works Center, Washington, D.C.

By virtue of their mission, PWCs are located in major naval concentrations.

Data Call Development

The capacity and military value data calls were developed using the BRAC-93 data calls as starting points. Sets of questions were then expanded or compressed based on lessons learned for BRAC-93 and consultations with technical experts. The capacity data call was designed to capture throughput, measured in budgeted government workyears and, secondarily, by measuring revenues across a range of service and product lines, including utilities, sanitation services, transportation services, maintenance and repair, design and contracting. The data calls sought information about specific features and capabilities of each activity, including manpower factors, physical space available for industrial support, facility and equipment characteristics, and contingency and mobilization features.

The military value data call placed primary emphasis on individual executed production workload. Additional information was collected for capital investment, as an indicator of facility condition, labor rates and expenses, indicators of efficiency and utilization. Standardized modules assessing facilities, costs and investments, environmental and quality of life concerns were adjusted to reflect the distinctly contractual mission and varying military and civilian workforce at these activities.

Capacity Analysis

Capacity analysis was conducted by comparing maximum capacity of the PWCs in budget workyears to the FY 2001 programmed requirement. The maximum capacity for the PWC community was determined by summing each individual PWC's maximum workyears between FY 1986 and FY 2001. This extension into the future was necessary to accommodate the two new PWCs at Jacksonville, Florida, and Washington, DC, which had no historic basis, and Norfolk, which is being restructured to assimilate realigned Tidewater workload and whose capabilities thereby increase considerably in the outyears. Total revenues for products and services were used as a secondary capacity measure. The categories of revenue corresponded to those used by the Headquarters command (e.g., utilities, sanitation services, transportation services, maintenance/repair, design, contracting). Revenue maximum was the high mark for the period FY 1986-1997. For all activities, the required capacity was determined from the reported programmed workload through FY 2001.

The capacity analyses showed that current capacity exceeded requirements by approximately 3 percent for the primary measure of total government workyears. The secondary measure of revenues indicated an excess capacity between 5-10 percent over the years FY 1994-1997. This low level of excess capacity is to be expected, since PWC workload and size is primarily customer-driven. The BSEC determined that PWCs should be evaluated individually as follower activities in conjunction with closure or realignment recommendations developed for major bases. This approach is consistent with that employed in BRAC-93.

Conclusion

The low level of excess capacity in this subcategory reflects the relationship between PWCs and their customer base. Because Public Works Centers are defined by the requirements of their customers, further independent evaluation of this subcategory was terminated.

Upon review of the BRAC-95 recommendations for other naval installations, only one gave rise to evaluation to determine if action should be taken on a related PWC. The recommendations to realign Naval Activities Guam, closing much of the former Naval Station, Guam, and to disestablish the Ship Repair Facility, Guam and FISC Guam were reviewed to determine the impact of those decisions on the operations of PWC Guam. Of particular concern were the job losses resulting from the recommendations affecting other DON activities on Guam. The BSEC determined that the job loss impact which would occur if PWC Guam was closed militated against closing this PWC, particularly since its retention could be rationalized as the PWC will continue to support various customers Therefore, no recommendations were issued for closure or realignment of any Public Works Center.

ATTACHMENT P

DESCRIPTION OF ANALYSIS OF CONSTRUCTION BATTALION CENTERS

There were two Construction Battalion Centers (CBCs) evaluated in this installation subcategory: CBC Gulfport, Mississippi and CBC Port Hueneme, California. The CBC principal mission is to homeport, support, and deploy the Naval Construction Force (NCF) and Reserve Construction Force. In support of this mission they also preserve, store, and maintain Prepositioned War Reserve Material (PWRM). The NCF provides direct support to other services and agencies of the government (e.g., advanced base construction), including operational, logistics, underwater, shore, and deep ocean facilities construction, maintenance, and operation. The NCF provides construction support to Marine Air Ground Task Force (MAGTF) operations and is capable of defending projects, camps, and convoys. PWRM consists of the war reserve material requirement which is pre-staged in storage areas to reduce reaction time and to assure timely support until replenishment can be effected. CBC requirements are determined by the Fleet Commanders-in-Chief who employ the Naval Construction Force.

Data Call Development

The capacity data call was developed after a review and validation of the BRAC-93 principal measures of capacity: total workyears, Construction Equipment Division (CED) workyears, number of deployable units homeported, number of deployable units supported, and storage capability. Requirements and maximum potential unit support capacity within each of these areas was requested for the period 1994-2001. The capacity data call captured information on type, size, and mission of units supported; availability and requirements of the CED workforce; expansion limitations; encroachment concerns; impacts from prior BRAC actions; warehousing/storage facilities; port throughput; and reserve presence. Facility features, capabilities, and specific questions on piers/wharfs, allocation, and infrastructure/utilities were included. Standard data call modules also were used to capture base infrastructure, acreage and investment; shore based training assets of the base, including tenant commands; pier/wharf characteristics; ordnance storage; historical reserve manning summary; historical maintenance, repair, and equipment expenditure data; and family housing, BEQ, BOQ, and messing facilities.

The military value data call sought information on resources and facilities that support the homeporting of the Naval Construction Force, including the CBC's reliance on civilian or other service support; additional future missions; access to training, unique climate or location benefits; access to transportation; waterfront availability; CED reliance on commercial support; and detailed specifics of warehousing capabilities. Standard modules on historic and planned capital improvements and quality of life were included, as were questions on the impact of infrastructure, encroachment, and zoning. Other

military value questions captured inter-service support agreements, special missions/equipment, mobilization capabilities, tenant support, and the potential for basing other units.

Capacity Analysis

The capacity analysis compared the current capability to support units to the requirement to support units from FY 1994 through FY 2001 for several measurement indicators including: units supported, CED workyears, active duty units homeported, inside storage capability, personnel supported, and active duty personnel homeported. Maximum capacities within each of these areas were examined, and the high water mark for the period FY 1994-2001 was used as the maximum capacity. The difference between the maximum possible number of units that could be supported and the projected requirement for FY 2001 showed some excess capacity for Construction Equipment Division workyears, no excess capacity for units and personnel supported, and a deficiency of inside storage space. This result can be explained by the closure of CBC Davisville, Rhode Island under BRAC-91 and the associated transfer of storage requirements and personnel support to Gulfport and Port Hueneme, which markedly decreased the available capacity at both remaining CBCs. Given the mission and size of projected force structure to be supported in FY 2001, the BSEC concluded that there was not sufficient excess capacity to warrant further evaluation of the Construction Battalion Centers subcategory.

ATTACHMENT Q

DESCRIPTION OF ANALYSIS OF NAVAL SECURITY GROUP ACTIVITIES

The mission of Naval Security Group Activities is to provide fleet support through electronic signal receipt/interpretation and intelligence reports. This subcategory included the following Naval Security Group Activity (NSGA) regional sites:

NSGA Winter Harbor, Maine
NSGA Sabana Seca, Puerto Rico
NSGA Northwest, Virginia
NSGA Sugar Grove, West Virginia

NSGA Adak, Alaska, was originally included within this subcategory. However, that activity is being disestablished outside of the base closure process, and so it was dropped from the subcategory.

Data Call Development

Since data calls for these activities had not been issued in previous BRAC rounds, the capacity and military value data calls were developed with the help of technical experts from Naval Security Group Command. The capacity data call included questions on types of equipment and antennas in service, unique equipments, alternative facilities that could substitute for data gathering or data processing, alternate activities that could manage their assets on a remote basis, and any site modifications and facility improvements budgeted in the FY 1995 President's Budget Submission through FY 1997. The military value data call sought information on base infrastructure and investment, logistic support, personnel support facilities, operational suitability, and the standard quality of life questions issued to all activities.

Capacity Analysis

The capacity measure for these activities was the ability to retain the current data gathering capability as demonstrated by system coverage. Since site capabilities are driven by mission requirements, this measure ensured continued adequate fleet support. Because of each site's unique reception characteristics, no capability to substitute one receiving site for another was demonstrated. Accordingly, the BSEC found there was insufficient excess capacity to warrant further evaluation of the Naval Security Group Activity subcategory.

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ATTACHMENT R

DESCRIPTION OF ANALYSIS OF INTEGRATED UNDERSEA SURVEILLANCE SYSTEM FACILITIES

The mission of the Integrated Undersea Surveillance System (IUSS) is to provide fleet and civilian support in the areas of fixed and SURTASS array sonar contacts and ocean environmental conditions. This subcategory was composed of Naval Ocean Processing Facility (NOPF), Dam Neck, Virginia and Naval Facility (NAVFAC), Whidbey Island, Washington. NOPF Ford Island, Hawaii, was originally included within this subcategory. However, that activity is being disestablished outside of the base closure process, so it was dropped from the subcategory.

Data Call Development

Since data calls for these activities had not been issued in previous BRAC rounds, the capacity and military value data calls were developed with the help of technical experts from fleet and OPNAV staffs. The capacity data call included questions on types of sonar equipment and arrays in service, unique equipments, alternative facilities that could substitute for data gathering or data processing, alternate activities that could manage their assets on a remote basis, and any site modifications and facility improvements budgeted in the FY 1995 President's Budget Submission through FY 1997. The military value data call sought information on base infrastructure and investment, logistic and support missions, personnel support, and operational suitability including mobilization, and climate. The military value data call also included the standard module for quality of life.

Capacity Analysis

The capacity measure used was the ability of one of the two remaining sites to accept all IUSS equipment, signal processing, and personnel workload through consolidation using satellite communication links. The certified data responses indicated it was technically feasible to remote all array information and perform all necessary array processing and analysis in one facility. Based on this analysis, the BSEC decided to proceed with military value analysis of this subcategory.

Military Value Analysis

The military value matrix contained sections relating to mission, infrastructure and investment, encroachment and environment, training, and quality of life. Mission-related items included support provided by the activity to other DoD activities or civilian groups, the quantity of sonar arrays monitored and whether the activity had any unique equipment. Infrastructure and investment factors included prior and planned investments,

infrastructure capabilities, and cost factors. The environmental factors captured items similar to those used in other subcategory analysis. Training measured the types of training support offered by the activity. Since each of the activities is a tenant of another activity, quality of life used the host activity information.

The BSEC placed highest value on mission-related factors, with training, infrastructure and investment, encroachment and environment, and quality of life following in order of importance. Although scored the lowest, quality of life was viewed by the BSEC as very important; it received its low ranking only because quality of life was a host activity element and not evaluated as a tenant activity controlled factor. The final military value total scores were 78.2 for NOPF Dam Neck and 66.6 for NAVFAC Whidbey Island, out of a total possible 100 points. The differences in scoring were related to NOPF Dam Neck's scoring on environmental questions due to being located in a non-attainment area and NAVFAC Whidbey Island's scoring on training because they are a more remote site, away from fleet headquarters and training locations.

Scenario Development and Analysis

With only two sites in this subcategory, no computer-modelled configuration analysis was necessary. The BSEC directed the release of COBRA scenario data call for closure of NAVFAC Whidbey Island, which had the lower military value of the two activities being evaluated. Costs associated with this alternative included movement of personnel and process equipment to NOPF Dam Neck and establishment of satellite communication links to provide the raw sonar array data. There were limited savings since the facilities were only being partially vacated with some of the facilities still required to house IUSS processing equipments.

Conclusion

The two IUSS sites remaining are operationally tied to and focused toward their respective fleet commanders. Significant consolidation of these activities has already taken place outside the base closure process. Any small fiscal gain from consolidating into a single site is offset by both the relatively high one-time consolidation costs and the loss in operational flexibility. Therefore, neither site is recommended for closure.

ATTACHMENT S

DESCRIPTION OF ANALYSIS OF NAVAL COMPUTER AND TELECOMMUNICATIONS STATIONS

The Naval Computer and Telecommunications Stations subcategory includes activities that have a primary mission of maintaining communications equipment and radio frequency antenna arrays or performing significant base level computing services. This subcategory included the following activities:

Naval Computer and Telecommunications Station, San Diego, California
Naval Communication Station, Stockton, California
Naval Computer and Telecommunications Station, Jacksonville, Florida
Naval Computer and Telecommunications Area Master Station Detachment, Key West, Florida
Naval Computer and Telecommunications Station, Pensacola, Florida
Naval Computer and Telecommunications Area Master Station, Western Pacific, Guam
Naval Computer and Telecommunications Area Master Station, Eastern Pacific, Wahaiwa, Hawaii
Naval Computer and Telecommunications Station, New Orleans, Louisiana
Naval Computer and Telecommunications Station, Cutler, Maine
Naval Communication Detachment, Cheltenham, Maryland
Naval Computer and Telecommunications Station, Puerto Rico, Roosevelt Roads, Puerto Rico
Naval Computer and Telecommunications Station, Newport, Rhode Island
Naval Computer and Telecommunications Area Master Station, Atlantic, Norfolk, Virginia
Naval Computer and Telecommunications Station, Washington, DC
Naval Radio Station-Transmitter, Jim Creek, Arlington, Washington
Naval Computer and Telecommunications Station, Puget Sound, Silverdale, Washington
Naval Computer and Telecommunications Area Master Station, ELF Detachment, Clam Lake, Wisconsin

These activities support airplanes, surface ships, and submarines by providing continuous radio message broadcasts and communication connectivity. The base level computing services are provided to a number of large activities throughout the United States and its territories.

Data Call Development

Since these types of data calls had not been issued in previous BRAC rounds, capacity and military value data calls were developed with the help of technical experts from Naval Computer and Telecommunications Command (COMNAVTELCOM). The capacity data call included questions on communication equipment and antenna array lists, unique equipments, alternative facilities that could substitute for communications transmit and receive missions with existing equipment, alternative activities that could manage facilities or receive assets on a remote basis, and any site modifications and facility improvements budgeted in the FY 1995 President's Budget Submission through FY 1997. The military value data call sought information on base infrastructure and support, logistic support, personnel support, operational suitability, and the standard quality of life questions. An additional data call, similar to that issued in BRAC-93, was sent to the major claimant, COMNAVTELCOM, to obtain a complete and comprehensive portrait of the community of activities, including site specific transmitter and antenna lists, maximum transmitter power capability, and geographic coverage areas by radio frequency bands.

Capacity Analysis

There were two measures of capacity used in the capacity analysis. For stations which had radio transmitters and antennas, geographic coverage by frequency band was the primary measure of capacity. This measure ensured no loss of fleet communication capability. The base level computing workyears were used for the remaining stations whose primary purpose was computing services. The capacity analysis showed that base level computing services had minimal excess in computing capacity, and other services offered by all telecommunication activities were viewed as follower actions and not remoteable or transferrable. Since the radio transmitter sites were specifically located to achieve the minimum broadcast coverage requirements by frequency band, no excess capacity existed for transmitter sites. The BSEC determined that there was insufficient excess capacity to warrant further evaluation of the Naval Computer and Telecommunication Stations subcategory.

ATTACHMENT T

DESCRIPTION OF ANALYSIS OF NAVAL METEOROLOGY AND OCEANOGRAPHY CENTERS

The activities in the Naval Meteorology and Oceanography Centers subcategory provide meteorological and oceanographic information in direct support of fleet operations. The following activities were included in this subcategory:

Fleet Numerical Weather Center, Monterey, California
Western Pacific Meteorology and Oceanography Center, Guam
Pacific Meteorology and Oceanography Center, Pearl Harbor, Hawaii
Naval Oceanography Center, Stennis Space Center, Mississippi
Atlantic Meteorology and Oceanography Center, Norfolk, Virginia.
Naval Observatory, Washington, DC

Data Call Development

Since previous BRAC rounds had not included data calls in this subcategory, capacity and military value data calls were developed with the help of technical experts from the Naval Meteorology and Oceanography Command and the OPNAV staff. The capacity data call included questions on types of computer systems and equipment in service, unique equipments, alternative facilities that could substitute for their computer processing or data gathering or data distribution, alternate activities that could manage their assets on a remote basis, and any site modifications and facility improvements budgeted in the FY 1995 President's Budget Submission through FY 1997. The military value data call sought information on base infrastructure and investment, logistic support, personnel support, operational suitability, and the standard quality of life questions.

Capacity Analysis

There were two measures of capacity used in the capacity analysis. For activities with large computer processing responsibilities, the amount of available main frame computer time was used as the measure of capacity. This measure would ensure all requirements for future computer processing could be met. The second measure was the ability of the regional centers to accept the work load of another center and operate their data gathering and distribution system remotely. This measure would allow continued fleet support without degradation from the current level. Since these activities are geographically located for region-specific fleet support, the BSEC found the results of the capacity analysis did not demonstrate sufficient excess capacity to warrant further evaluation of the Naval Meteorology and Oceanography Centers subcategory.

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ATTACHMENT U

DESCRIPTION OF ANALYSIS OF MEDICAL ACTIVITIES

The mission of Naval Medical Activities is to provide comprehensive outpatient and inpatient medical care to all active duty personnel and their family members, and, on a space available basis, to military retirees and their family members. The medical activities reviewed consisted of 22 hospitals, nine Naval medical clinics, and 111 branch medical clinics.

Data Call Development

The capacity data call focused on expanded beds for hospitals and outpatient visits for Naval medical clinics and branch medical clinics. Expanded beds were used as the capacity measure for hospitals because that measure provides a real measurement of the size of the facility and the available capacity. Other possible measures of capacity, such as operating beds, are more a function of the size of the staff, rather than the true capacity of the facility. Expanded beds are the number of beds that a facility can set up in a hospital and still provide the standard of care that is expected by accreditation agencies. Outpatient visits were used as the capacity measure for outpatient clinics because the number of visits per year that can be processed through a facility adequately measures the size of the infrastructure and its capabilities. The data call also included a number of data elements to accommodate the efforts of the Joint Cross-Service Group for Military Treatment Facilities and Graduate Medical Education (JCSG-MTF/GME).

The military value data call reflected emphasis on mission, customers supported, and the unique capabilities of the medical treatment facility. The data call captured unit size of customers supported, actual time spent on non-patient care support, mobilization requirements, air evacuation capability, and facility condition. Questions regarding the number of graduate medical education programs and the board certification rate of these programs were included in support of the Departmental policy to maintain a well trained and responsive medical department. Capabilities of the local civilian health care system were requested to determine whether or not the active duty personnel remaining if a military treatment facility closed would have adequate access to both inpatient and outpatient care. The standard quality of life module was included.

A CHAMPUS data call was developed to capture data that related to the number of outpatient CHAMPUS visits, the number of CHAMPUS inpatient admissions, and the average CHAMPUS allowable costs as it related to Navy catchment areas. This data was used to support the JCSG-MTF/GME effort to compare the military treatment facility's costs with those in the civilian community for like facilities. The CHAMPUS outpatient visit information also was used in the DON capacity analysis for outpatient facilities.

Capacity Analysis

For outpatient facilities, capacity analysis compared the outpatient visit demand, comprised of the actual direct care visits plus the CHAMPUS outpatient visits, to the maximum outpatient visit capacity in the direct care system. The outpatient visit demand in all of the Navy's catchment areas exceeded the maximum capacity of the direct care system by 2,407,855 visits which equates to a negative capacity of 20.1 percent. It was determined that no excess capacity existed in outpatient facilities and that outpatient facilities be further evaluated only as a result of host closure.

The capacity measure used for hospitals (inpatient facilities) was expanded beds, which is a bed that is fully set up and in place within 72 hours in a space designed for a bed. The number of expanded beds available in the DON was then compared to the number required to support the FY 2001 force structure by the Defense Planning Guidance. The Department of the Navy is required to have 2600 expanded beds available and currently has 3967 expanded beds in their inpatient inventory. Since this analysis revealed 52.5 percent excess capacity existing in inpatient facilities, the BSEC directed a military value analysis be conducted.

Military Value Analysis

The military value matrix was constructed to address mission, facility condition, location, costs, and quality of life. The mission questions emphasize the active duty population supported by the hospital, the active duty and active duty family members in the hospital's catchment area, the hospital's occupancy rate and number of operating beds, as well as any unique military medical mission of the hospital. Value was placed on the greater numbers of active duty supported as well as a military medical mission that cannot be supported by the civilian health care resources in the area. Mobilization requirements of the hospital were given consideration to ensure that cohesiveness and responsiveness of mobilization units were not disrupted. Value was also placed on the number of Graduate Medical Education Programs in support of the Departmental policy of maintaining the training and skill level of medical staff. Recognizing the Department's need to provide care at locations where adequate civilian or other federal sources of health care are not available, availability of adequate civilian health care was given specific value. The standard quality of life military value questions were used, with adjustments reflecting that the hospitals are mostly tenants and rely on their host activity to provide the quality of life for the area.

Final military value scoring placed heavy emphasis on mission, mobilization, and training with the highest weighted questions being the number of graduate medical education programs and unique medical military mission. The highest military value score any facility could achieve was a 77.37 because a number of the military value questions were cascading, and facilities only received value for the highest valued question that could be answered positively for that particular facility. The highest scoring

facilities were the medical centers, followed by facilities supporting large military populations. The lowest scoring facilities were the small hospitals. National Naval Medical Center, Bethesda, Maryland and Naval Medical Center, Portsmouth, Virginia were the highest scoring facilities because of their graduate medical education programs, the number of active duty and active duty family members supported and their large number of operating beds and expanded beds. Naval Hospital, Newport, Rhode Island and Naval Hospital, Millington, Tennessee were the two lowest scoring facilities because they have no graduate medical education programs, support few active duty and active duty family members, have limited mobilization capability, and a limited expanded bed capacity.

Configuration Analysis

The approach used in configuration analysis of hospitals minimizes excess capacity while maintaining an average military value at least as great as the current average for all Naval Hospitals. The parameters are based on expanded bed capacity for the Department of the Navy as defined by the most current Defense Planning Guidance, active duty population in the 40 mile catchment area, and the ratio of civilian primary care physicians to civilian population in the catchment area. The model rules were: (1) hospitals servicing more than 10,000 active duty remain open and (2) no hospital in a catchment area where the civilian primary care physician to civilian population ratio is below the national standard (1:3000) can close.

The results of the configuration analysis reduced excess expanded beds while maintaining the average military value of DON hospitals. The first solution closed four hospitals (Beaufort, Oak Harbor, Corpus Christi, and Lemoore), the second solution closed three hospitals (Beaufort, Corpus Christi, and Lemoore), and the third solution closed three hospitals (Beaufort, Corpus Christi, and Oak Harbor).

Scenario Development and Analysis

The BSEC evaluated the configuration analysis results, but decided to defer further consideration of Naval Hospital scenarios pending receipt of alternatives from the JCSG-MTF/GME, particularly in view of the interrelationships among the Military Departments' capabilities. Additionally, it determined that hospitals were follower activities to be considered for closure if there was sufficient decline in active duty population due to closure of other DON activities.

The alternatives forwarded to the DON by the JCSG-MTF/GME were to realign Naval Hospital, Corpus Christi and Naval Hospital, Beaufort to medical clinics and eliminate inpatient capability at these two facilities. The JCSG's approach minimized excess inpatient bed capacity and maintained average military value. The capacity measure used was peacetime plus wartime (expanded) bed requirements. The optimization model rules accepted by the JCSG were to close no hospital in an under-

served area and to close no hospital serving greater than 25,000 active duty personnel. An under-served area was defined as one in which the civilian primary care physician to civilian population ration is less than 1:3000 or there are fewer than two accredited civilian hospitals in the catchment area. After consideration of the JCSG alternatives, the BSEC directed scenario data calls to be issued for the realignments of Naval Hospital, Beaufort and Naval Hospital, Corpus Christi to medical outpatient clinics.

The COBRA analysis for the realignment of Naval Hospital, Beaufort to an outpatient clinic did not result in a return on investment because of the increase in CHAMPUS costs due to the loss of inpatient care at Beaufort. No billets were eliminated since the active duty inpatient workload, and its associated medical staff, would have to be transferred to Naval Hospital, Jacksonville. In view of the poor access to local civilian inpatient care at Beaufort, the increased CHAMPUS costs that would be incurred, and the absence of any personnel savings, there was no further consideration of the proposed alternative realigning Naval Hospital, Beaufort to an outpatient clinic.

The realignment of Naval Hospital, Corpus Christi to an outpatient clinic was cost-effective. However, as a result of the operational realignment of active duty personnel into Naval Air Facility, Corpus Christi, with the addition of their family members, the BSEC concluded that realignment of Naval Hospital, Corpus Christi was not a viable option. Review of Naval Hospitals and medical clinics after the BSEC had determined which other naval activities would be recommended for closure or realignment did not suggest any further alternatives in this subcategory.

Conclusion

Naval Hospitals are true followers in that their presence is closely tied to the presence of other Navy and Marine Corps units in their area. The JCSG-MTF/GME recommended no closures of Naval Hospitals and the realignment of only two into clinics. Both hospitals suggested by the JCSG were in areas with a large active duty presence, so it was infeasible to lower the military medical presence. As no operational or training bases with tenant hospitals were closed, no hospitals are recommended for closure.

ATTACHMENT V

DESCRIPTION OF ANALYSIS OF DENTAL ACTIVITIES

The mission of Dental Activities is to provide comprehensive dental care to all active duty personnel, including routine dental screening, intermediate dental care, provision of full mouth dental radiographs (panorex) for remains identification purposes, and oral surgery. The dental activities reviewed consisted of 104 dental activities comprising both the Naval Dental Centers and the Branch Dental Clinics located on Navy and Marine Corps facilities that support the active duty population.

Data Call Development

The capacity data call focused on the Composite Time Value (CTV) measure which reflects the dental needs of the population served and compares it against the capability which the system can provide. The CTV measure is a standard DoD dental workload measurement unit.

The military value data call reflected emphasis on mission, customers supported, training performed at the dental activity (both for the dental technicians and the dentists), and the unique capabilities of the facility in terms of staff, equipment, and/or facility. Mobilization requirements of the activity were included to determine the impact on readiness if the facility were to close and the staff relocated to other activities. Information on the ability of the local civilian community to support the active duty population was collected to ensure that civilian dental care was available if the dental activity were to close and active duty personnel were to remain. The standard quality of life module also was included.

Capacity Analysis

Using Composite Time Value (CTV) as the measure of dental workload, capacity analysis was performed by taking the historical CTV per capita for the population served and computing the CTVs required for the population that will be served in FY 2001. Available CTVs were computed based on the size of the dental facility and the capabilities of the dental facility's staff. Comparison of required CTVs and available CTVs showed a 21 percent deficiency. The BSEC concluded that further evaluation of the Dental Activities subcategory was not warranted.

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ATTACHMENT W

DESCRIPTION OF ANALYSIS OF MILITARY SEALIFT COMMAND ACTIVITIES

Military Sealift Command Atlantic (MSCLANT), located in Bayonne, New Jersey, and Military Sealift Command Pacific (MSCPAC), located in Oakland, California, are responsible for managing the Navy Fleet Auxiliary Force (NFAF), scientific support, and cargo fleet, as well as contract shipping requirements for the Department of the Navy.

Data Call Development

The capacity data call was modeled on the approved Supervisor of Shipbuilding (SUPSHIP) capacity data call, since those activities have contract management functions similar to those of the MSCs. The principal capacity measure was workyears, which is a measure of the contract dollar management effort. Additionally, the data call requested the number of ships managed and amount of contract funds supervised in order to validate the historic and future predicted workyears requirement. The standard modules for pier assets and infrastructure investment were also contained in the capacity data call.

The military value data call was developed from the SUPSHIP, Naval Station, Naval Computer and Telecommunications Facility, and Integrated Undersea Surveillance Activity data calls. In addition to standard modules on historic and future investment and quality of life, the data call sought information on other activities that could perform the MSC mission, facility size and limitations on expansion, proximity to transportation nodes, historic and future travel expenditures for mission support, and maximum potential workload. Additional questions were asked to capture unique personnel qualifications as well as expansion capabilities to determine military value.

Capacity Analysis

Capacity analysis compared the historic maximum workyears performed to the future anticipated workload, resulting in a one percent shortfall in capacity. This result is consistent with the planned reduction and restructuring in the total Navy logistic forces, to include the transfer to the NFAF of Navy combat logistic force (CLF) ships and the decommissioning of older NFAF ships. Reorganization within the Military Sealift Command structure to accommodate the changing workload of the FY 2001 logistic force is in progress, resulting in little excess capacity to eliminate. Accordingly, the BSEC concluded that further evaluation of Military Sealift Command Activities was not warranted.

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ATTACHMENT X

DESCRIPTION OF ANALYSIS OF TECHNICAL CENTERS & LABORATORIES

The DON Technical Centers and Laboratories are responsible for maintaining a technological advantage against the threat, for rapid crises response, and for maintaining unique facilities, capabilities, and corporate knowledge required for national security. The products of this community vary as widely as their missions - from navigation systems such as NAVSTAR to warfighting systems such as Sidewinder and HARM. The following list displays the 65 activities that were reviewed under the Technical Centers and Laboratories subcategory, organized by major claimant:

Commander-in-Chief, Atlantic Fleet
Atlantic Fleet Weapons Training Facility (AFWTF), Puerto Rico
Fleet Technical Support Center (FTSC), Atlantic, Norfolk, Virginia
Fleet Technical Support Center, Atlantic, Norfolk Detachment (FTSC Det), Mayport, Florida
Fleet Technical Support Center, Atlantic, Norfolk Detachment (FTSC Det), Norfolk, Virginia

Commander-in-Chief, Pacific Fleet
Pacific Missile Range Facility (PMRF), Hawaiian Area, Barking Sands, Hawaii
Fleet Technical Support Center (FTSC), San Diego, California
Fleet Technical Support Center (FTSC), Pearl Harbor, Hawaii

Chief of Naval Operations
Commander, Operational Test and Evaluation Force (OPTEVFOR), Norfolk, Virginia

Bureau of Medicine and Surgery
Naval Medical Research Institute (NMRI), Bethesda, Maryland
Naval Health Research Center (NHRC), San Diego, California
Naval Aerospace Medical Research Laboratory (NAMRL), Pensacola, Florida
Naval Biodynamics Laboratory (NBDL), New Orleans, Louisiana
Naval Submarine Medical Research Laboratory (SUBMED), Groton, Connecticut
Naval Dental Research Institute (NDRI), Great Lakes, Illinois

Bureau of Naval Personnel
Navy Personnel Research and Development Center (NPRDC), San Diego, California

Chief of Naval Research

Naval Research Laboratory (NRL), Washington, D.C.

Naval Research Laboratory Detachment, Underwater Sound Reference Laboratory (NRL USRL), Orlando, Florida

Office of Naval Research (ONR), Arlington, Virginia

Naval Air Systems Command

Naval Air Warfare Center, Headquarters (NAWC Hdqtrs), Washington, D.C.

Naval Air Warfare Center, Weapons Division (NAWC), China Lake, California

Naval Air Warfare Center, Weapons Division (NAWC), Point Mugu, California

Naval Air Warfare Center, Aircraft Division (NAWC), Indianapolis, Indiana

Naval Air Warfare Center, Aircraft Division (NAWC), Patuxent River, Maryland

Naval Air Warfare Center, Aircraft Division, Patuxent River Detachment (NAWC Det), Warminster, Pennsylvania

Naval Air Warfare Center, Aircraft Division, Patuxent River Detachment, Deep Water Test Facility (NAWC Det DWTF), Oreland, Pennsylvania

Naval Air Warfare Center, Aircraft Division (NAWC), Lakehurst, New Jersey

Naval Air Training Systems Division (NATSD), Orlando, Florida

Naval Air Technical Services Facility (NATSF), Philadelphia, Pennsylvania

Naval Aviation Engineering Service Unit (NAESU), Philadelphia, Pennsylvania

Naval Sea Systems Command

Naval Surface Warfare Center, Headquarters (NSWC Hdqtrs), Arlington, Virginia

Naval Surface Warfare Center, Crane Division (NSWC), Crane, Indiana

Naval Surface Warfare Center, Crane Division Detachment (NSWC Det), Louisville, Kentucky

Naval Surface Warfare Center, Crane Division Detachment, Hydroacoustic Test Area (NSWC Det HTA), Sullivan, Indiana

Naval Surface Warfare Center, Dahlgren Division (NSWC), Dahlgren, Virginia

Naval Surface Warfare Center, Dahlgren Division Detachment (NSWC Det), White Oak, Maryland

Naval Surface Warfare Center, Dahlgren Division, Coastal Systems Station (NSWC Det), Panama City, Florida

Naval Surface Warfare Center, Port Hueneme Division (NSWC), Port Hueneme, California

Naval Surface Warfare Center, Carderock Division (NSWC), Carderock, Maryland

Naval Surface Warfare Center, Carderock Division Detachment (NSWC), Philadelphia, Pennsylvania

Naval Surface Warfare Center, Carderock Division Detachment (NSWC), Annapolis, Maryland

Naval Surface Warfare Center, Carderock Division, Acoustic Research Detachment (NSWC Det), Bayview, Idaho
Naval Surface Warfare Center, Indian Head Division (NSWC), Indian Head, Maryland
Naval Surface Warfare Center, Indian Head Division Detachment (NSWC Det), Yorktown, Virginia
Naval Sea Logistics Center (NSLC), Mechanicsburg, Pennsylvania
Naval Sea Operations Support Detachment Technical Representative (AEGIS), Moorestown, New Jersey
Naval Undersea Warfare Center, Headquarters (NUWC Hdqtrs), Newport, Rhode Island
Naval Undersea Warfare Center, Newport Division (NUWC), Newport, Rhode Island
Naval Undersea Warfare Center, Newport Division Detachment (NUWC Det), New London, Connecticut
Naval Undersea Warfare Center, Keyport Division (NUWC), Keyport, Washington
SEASPARROW Project Support Office (SEASPARROW PO), Arlington, Virginia
Naval Warfare Assessment Division (NWAD), Corona, California
AEGIS Combat Center (AEGIS), Wallops Island, Virginia
Naval Explosive Ordnance Disposal Technology Division (EOD Tech Center), Indian Head, Maryland
Naval Ordnance Center (NOC Hdqtrs), Indian Head, Maryland

Space and Naval Warfare Systems Command
Naval Command, Control, and Ocean Surveillance Center, Headquarters (NCCOSC Hdqtrs), San Diego, California
Naval Command, Control, and Ocean Surveillance Center, RDT&E Division (NraD), San Diego, California
Naval Command, Control, and Ocean Surveillance Center, RDT&E Division, San Diego Detachment (NRaD Det), Warminster, Pennsylvania
Naval Command, Control, and Ocean Surveillance Center, In-Service Engineering, East Coast Division (NISE), Charleston, South Carolina
Naval Command, Control, and Ocean Surveillance Center, In-Service Engineering, East Coast Division, Charleston Detachment (NISE Det), Norfolk, Virginia
Naval Command, Control, and Ocean Surveillance Center, In-Service Engineering, West Coast Division (NISE West), San Diego, California
Naval Command, Control, and Ocean Surveillance Center, In-Service Engineering, West Coast Division, San Diego (NISE West Det), Pearl Harbor, Hawaii
Naval Management Systems Support Office (NAVMASSO), Chesapeake, Virginia

Naval Technical Representative Office (NTRO), Laurel, Maryland

Naval Facilities Engineering Command
Naval Facilities Engineering Service Center (NFESC), Port Hueneme, California

Naval Supply Systems Command
Navy Clothing and Textile Research Facility (NCTRF), Natick, Massachusetts

The individual missions of the Navy Technical Centers vary by technical and life-cycle areas. Some specialize in a few technical areas with expertise in a limited range of life-cycle areas, while the "full-spectrum" centers perform work in many technical areas across all life-cycle work areas.

Data Call Development

The aim of the data calls was to capture, in sufficient detail, each center's budget and workyear history, the nature of its technical work, the scope of its physical resources, and the quality of its personnel so as to permit sound analysis of each center's work capacity and military value. The Technical Centers and Laboratories team began the process of data call development by reviewing the BRAC-93 data calls in conjunction with lessons learned provided by members of the team who were involved in the previous BRACs. The format and basic content of the BRAC-95 data calls were based on the BRAC-93 versions but were expanded to capture more data in the areas of systems responsibility, ranges, "official mission" as compared to actual work being performed, full-spectrum work, intellectual productivity, ship berthing capacity, operational airfield capacity, depot level maintenance, technical functions performed by category and amount (workyears), expansion capability, and environmental/encroachment concerns. Standard modules of military value questions, such as the quality of life section, were also used.

Although the format and general content of the BRAC-95 military value data call did not change, the data call was expanded in order to make responses more quantifiable, increase the breadth and depth of the data call to provide a more accurate footprint of the facilities, cascade questions, grade the magnitude of work and the type and amount of work being done by Naval Technical Centers and Laboratories, and collect data for cross-service analysis. The added depth of the BRAC-95 data calls provided a more detailed and precise view of the Navy's Technical Centers' and Laboratories' workload and capacity. This expanded view provided a more accurate description of the military worth of the site. The expansion of the data calls was also intended to anticipate future data requirements from three different Joint Cross-Service Groups (JCSGs) which were also reviewing activities in this subcategory.

Capacity Analysis

To determine capacity, and ultimately excess capacity, budgeted workyears were used as the measuring stick for analysis. As with BRAC-93, workyears were chosen to serve as the units in place of other potential tools such as square feet. Budgeted workyears were used as a measuring tool for capacity because of its commonality within the functionally diverse Technical Centers whose products range from published scientific papers to the installation of a new piece of shipboard equipment to the live testing of a new warhead or airframe.

Capacity, based upon the historical maximum number of budgeted workyears that an activity reported for a single year (from FY 1986 to FY 1994), was derived from certified responses to the capacity data call. These figures were added for all activities to obtain a total DON workyear figure. Similarly, the budgeted workyears reported by the activities for FY 1997 were added to achieve a FY 1997 total DON workyear figure. The FY 1997 figure was subtracted from the maximum workyear figure to determine excess capacity. The historical time frame of 1986 to 1994 was used because it provides a relatively large spread of years, encompasses events like Desert Storm and the peak of the defense buildup of the 1980s, yet also is a period that is recent enough to limit the difficulty of obtaining the necessary data. Additionally, the physical plant (roads, utilities, buildings, etc.) that supported the peak workload is still present at most installations. Similarly, FY 1997 was used as the projected year because it is a point in time that will depict the conclusion of most or all of the planned military force structure reductions, and it is presently the last year for which there is an approved budget. The analysis of throughput workyears resulted in a difference of over 19,000 workyears, or an excess capacity of 27 percent. The BSEC concluded that the excess capacity warranted proceeding with military value analysis.

Military Value Analysis

The job of determining the military value of diverse activities that differ by mission, size, physical resources, environmental attributes, quality of personnel, and nature of work was a difficult task. The number of questions that comprise the military value matrix was expanded from 122 for BRAC-93 to 195 for BRAC-95. A similar rationale was used for the expansion of the number and depth of questions as was used for expanding the military value data call. Questions were written to be diverse enough to be inclusive of all activities yet detailed enough to measure not just performance but also capability to perform, as well as to anticipate JCSG requirements. The BSEC approved the list of 195 military value questions after reducing the number of proposed questions from 211 and ensuring the intent of each question was clear and relevant.

Military value (scoring) of an activity was derived from a series of questions developed from the military value data call and aligned under nine categories. The categories include mission statement; technical functions; facilities, ranges, features and

other capabilities; manpower; location/environment; quality of life; cost; and loss impact. The BSEC then assigned weights to each of the four military value criteria (readiness, facilities, mobilization capability, cost and manpower implications), placed each question into one of three bands of importance (or functional significance), and gave each question a numerical score. Of the nine categories, the four that received the highest total weights were manpower, facilities, mission statement, and technical functions. Emphasis within these categories was placed on (1) the highest number of well-educated/experienced civilian technical personnel, (2) control of the facility functions along with qualitative condition of the facilities and expansion capabilities, (3) the capability to perform the full-spectrum of work as well as total systems responsibility and systems integration, and (4) a performance history of substantial amounts of workyears in a variety of functional areas.

Military value analysis involved an arduous process of data reduction. To aid this process, a number of matrices were produced for the various categories of questions noted above. One of the most significant matrices prepared to support military value analysis was the Technical Workload Matrix. This matrix displays the amount of work performed by each activity in FY 1993 based on a standard list of functional support areas and life-cycle work areas included in the military value data call. One of the lessons learned from the BRAC-93 was the need to capture in better detail, using standard terminology, the amount and type of work being performed by the Technical Centers and Laboratories. The Technical Workload Matrix provided a tool by which work could be aggregated by functions for individual activities and compared to total Navy workload. Thresholds were applied to the scoring of military value questions that addressed technical function work so as to give activities credit for doing substantial amounts of work. A result of this data collection and analysis was a "footprint" of Technical Centers and Laboratories with a level of detail that had not been previously achieved.

After scoring each of the activities using the 195 weighted questions, a ranking of the activities showed a range in scores from a low of 5.77 to a high of 59.61, out of a possible score of 75.05. In general, the activities which received the highest scores were activities that were large in size and personnel (emphasis on highly educated/technical), performed a large amount of workyears in technical functions, associated with large ranges, and had a full spectrum mission.

Configuration Analysis

Having determined that excess capacity existed in the Technical Centers and Laboratories subcategory and having assessed the military value of each activity, a configuration model was prepared for the purpose of finding minimum capacity subsets of technical centers that could perform the estimated future technical center workload.

The technical center configuration model minimizes total capacity of retained sites while maintaining average military value and satisfying future functional workload requirements. Future requirements were based upon the requirement to perform 116

different functions. The 116 functions result from having 29 functional categories, such as undersea and surface ship platforms, and four life-cycle phases: RDT&E, acquisition, life-time support, and general. The configuration modelling considered only the 56 technical centers that actually perform technical functions. Technical headquarters were withheld from the model.

The parameters loaded into the model were as follows:

Total Capacity: The capacity of a technical center was defined to be the maximum technical workyears that could be performed at the technical center. A technical workyear is the work performed in a year by a technical person. Budgeted workyears include all technical workyears as well as all other indirect cost incurred by the activity in the course of a year. Technical workyear data was available for only the most recent year. The maximum technical workyears that could be performed at a technical center were estimated as the product of the most recent technical workyear amount multiplied by the ratio of the maximum number of budgeted workyears for FY 1986 through FY 1997, divided by the FY 1994 budgeted workyears. The years 1986 through 1994 represent a period of high expenditures for technical work.

Functional Capacity: The capacity of a technical center to perform a function was estimated to be the current technical workload in that function multiplied by a number in the range of 1.25 to 2.00. Smaller workloads were multiplied by the larger values. The BSEC reasoned that an activity currently performing 10 workyears of effort in a functional area could double the workload to 20 workyears if necessary, but was unwilling to allow the functional workload to double if it was currently at 1,000 workyears. For large functional workloads, the BSEC only allowed a 25 percent increase.

Functional Requirements: The estimate of each technical center's FY 1997 functional workload was taken to be the product of the current workload in that function times the ratio of the FY 1997 budgeted workyears and the FY 1993 budgeted workyears. For a given function, the total FY 1997 requirement was calculated as the sum of these FY 1997 estimated functional workloads across all activities. The baseline runs of the model used future functional requirements that were scaled to 80 percent of the estimated FY 1997 requirement. The BSEC considered these to be reasonable estimates of the FY 2001 requirements based upon a projected decline in the DON budget from 1997 to 2001 of 20 percent.

There were also several rules which were applied to the model as it sought a solution. The BSEC did not want the configuration model to artificially move functional workloads that were in some way tied to a geographical location. Therefore, technical centers with predominantly geographically restricted workloads were held open in the model. The Fleet Technical Support Center, Atlantic (FTSCLANT); FTSCLANT Norfolk Detachment; FTSCLANT Mayport Detachment; Fleet Technical Center, Pacific (FTSCPAC); and FTSCPAC Pearl Harbor Detachment were forced open in the model. In addition, at least

one of the two major lake facilities at Bayview, Idaho and Orlando, Florida was to be retained. At least one of the two AEGIS sites (Moorestown, New Jersey, and Wallops Island, Virginia) also was to be retained in the model. The two AEGIS sites are located in areas with high volumes of air traffic, making them ideal for AEGIS technical and training functions. The restrictions described here were added to the model to prevent the movement of geographically restricted workloads to inappropriate sites.

Additionally, the model was allowed only to redistribute functional workloads from closing sites to retained sites with substantially similar functional capacity, although functional workload could be transferred to a different life-cycle phase. For example, the undersea and surface platform life-time support function of a closing site could be transferred to a retained site with available capacity in undersea and surface platform acquisition functions. Workload from the general life-cycle phase could be transferred to any other life-cycle phase in the same functional support category. Workload from the life-time support phase could be transferred to either the acquisition or the RDT&E phase of the same functional support category. Acquisition work could be transferred to RDT&E.

The best solution using the baseline requirements retained 35 of the 56 activities included in the configuration model. This solution closed NAWC Indianapolis; NAWC Lakehurst; NSWC Crane; NSWC Annapolis; NSWC Indian Head; NSWC Crane Det HTA Sullivan Lake; NUWC New London; NWAD Corona; EOD Technical Center; AEGIS Moorestown; NCCOSC Warminster; NISE Norfolk; NISE San Diego; NISE Pearl Harbor; NAVMASSO, NRL USRL Orlando; NPRDC; OPTEVFOR; NMRI; NAMRL; and NBDL. This solution reduced total capacity by 27.1 percent while retaining 17.1 percent excess capacity compared to the baseline requirements. The retained average military value was 26.8 compared to the overall average military value of 23.40. The second-best solution retained NSWC Crane Det HTA Sullivan. The addition of NSWC Crane Det HTA Sullivan to the baseline solution resulted in a capacity reduction of 27.1 percent, excess capacity of 17.2 percent, and a retained average military value of 26.2. The third-best solution closed NSWC Crane Det HTA Sullivan and AEGIS Wallops, while retaining AEGIS Moorestown. This solution reduced total capacity by 27.0 percent. Excess capacity was 17.2 percent and the retained average military value 26.7.

Sensitivity analyses were also conducted. Increasing the functional requirements by ten percent resulted in closing NAWC Warminster; NSWC Carderock Det Bayview; AEGIS Wallops; NCTRF; NHRC; SUBMED; and NDRI. AEGIS Moorestown; NCCOSC Warminster; NRL USRL; NMRI; NAMRL; and NBDL were retained. Compared to the baseline requirements, this solution had 18.4 percent excess capacity and a retained average military value of 27.0. Total capacity was reduced by 26.3 percent. Decreasing the future functional requirements by ten percent resulted in closing NAWC Warminster; NSWC Philadelphia; NSLC Mechanicsburg; NCTRF; and SUBMED. The solution retained NBDL. Compared to the baseline requirements, this solution retained only 11.5 percent excess capacity and had a retained average military value of 27.7. Total capacity

was reduced by 30.6 percent. Decreasing the future functional requirements by 20 percent resulted in closing NAWC Warminster; NSWC Philadelphia; NSLC Mechanicsburg; NHRC; and SUBMED. The solution retained NBDL. Compared to the baseline future functional requirement, this solution results in excess capacity of 11.3 percent and a retained average military value of 28.1. The total retained capacity was reduced by 30.7 percent.

Utilizing the results of the baseline model, a "footprint" was prepared to depict the functional areas performed by Naval Technical Centers both before and after configuration analysis, as well as the number of activities conducting each functional area. The purpose of the footprint was to illustrate the effects on DON technical capability if the results of the configuration analysis were to be entirely implemented. The footprint demonstrated that, while the number of activities performing like functions would be significantly reduced, no Technical Center function would be eliminated.

Scenario Development and Analysis

The results of the configuration analysis provided the BSEC with a starting point for deliberations leading to scenario development. The amount of excess capacity and the large number of activities closed by the model solution reflected the lack of significant Technical Center and Laboratory closures commensurate with other Departmental indicators during BRAC-93. While the model solution corroborated the BSEC's philosophical systems approach for large multi-product, multispectrum activities, there were several activities affected by other scenarios that did not appear in the solution. After reviewing a compilation of sites that reported no technical workyears and that were major detachments of the technical centers, the BSEC focused on the configuration model's best solution, since it reduced the most excess capacity, and decided to issue COBRA scenario data calls on the closures of NAWC Indianapolis, NAWC Lakehurst, NSWC Crane (and its detachment, HTA Sullivan Lake), NSWC Annapolis, NSWC Indian Head (and its tenant, EOD Technical Center), NUWC New London, NWAD Corona, AEGIS Moorestown, NCCOSC Warminster (and its major tenant, NAWC Warminster), NISE Norfolk, NISE San Diego, NAVMASSO, NRL USRL Orlando, NPRDC, NMRI, and NBDL. Additionally, COBRA scenario data calls were issued to close AEGIS Wallops Island, to provide a basis for comparison of which of the AEGIS sites would be more cost-effective to close; to close NSWC White Oak, which is a detachment of NSWC Dahlgren; and to close NAWC Oreland and NAESU Philadelphia, since neither reported any technical workyears, which suggested that they could be easily consolidated with their managing commands. Finally, in light of the Inventory Control Points scenario under consideration for the consolidation of the Aviation Supply Office (ASO) with the Ships Parts Control Center at Mechanicsburg, Pennsylvania, the BSEC issued a COBRA scenario data call for the closure of NATSF, which is a tenant of ASO.

The BSEC noted that there were COBRA data calls already issued in response to the JCSG on Depot Maintenance (JCSG-DM) alternatives to look at movement of

shipboard systems depot maintenance workload from NUWC Keyport, NSWC Crane, and NSWC Louisville to other naval activities. These three Technical Centers had identified regular programmed performance of significant depot maintenance workload on sea systems, particularly in ships' weapons systems. Consistent with the Department intent to move industrial workload out of the Technical Centers and into the depots, these three activities were included in DON scenarios examining naval shipyards. Since almost half of NSWC Louisville's workload is depot maintenance, and in light of the configuration model results which suggested closure of NSWC Crane, the BSEC confirmed that closure of NSWC Louisville was properly included in the COBRA scenario data calls.

Review of alternatives issued by the JCSGs on Test and Evaluation (T&E JCSG) and Laboratories (LJCSG) revealed that most of the viable alternatives were already being considered under the DON process. However, several of the alternatives suggested receiving sites other than those being considered under the DON scenarios (e.g., movement of energetics-explosives workload from NSWC Indian Head to ARDEC Picatinny Arsenal). As a result of this review, additional COBRA scenario data calls were sent to indicate alternate receiving sites for DON closure candidates, and new COBRA scenario data calls were sent for the closure of NHRC San Diego, the collocation of SPAWAR at Fort Monmouth or ESC Hanscom AFB, and the collocation of the Office of Naval Research with the Army and Air Force research offices.

COBRA analysis was conducted on a total of 43 scenarios affecting Technical Centers and Laboratories. In a number of cases, the results of the COBRA analysis on individual activities allowed refinement of costing methodologies and/or alternatives for receiving sites which represented better choices for utilization of existing capacity and capability. Generally, the COBRA analysis confirmed that closure of a detachment and its consolidation with its parent command resulted in cost and manpower efficiencies. The COBRA analysis demonstrated that movement of sea systems (weapons) depot maintenance workload from NSWC Louisville and NUWC Keyport would result in greater productivity efficiencies within the shipyards and reduction of excess capacity. The NWAD Corona closure scenario was eliminated by the SECNAV based on his concern over eliminating additional civilian jobs in the area. Several scenarios were rejected by the BSEC because the COBRA analysis showed that the activities were either unique or ill-suited for closure. For instance, AEGIS Moorestown performs production acceptance and operational testing of all upgrades to AEGIS systems and is collocated with its manufacturer. Since the workload at AEGIS Moorestown and AEGIS Wallops Island was both dissimilar and required, the BSEC determined that neither should close. After review of the COBRA analyses on three alternatives to close NSWC Crane, the BSEC decided not to pursue its closure due to high one-time costs and no return on investment (two of the alternatives) and high one-time costs relative to the 20 year net present value (the third). It later became a receiving site for substantial workload from other closing sites, reducing most of its excess capacity.

Although there is not a direct one-for-one correlation with all of the Laboratory and T&E alternatives suggested, the internal DON BRAC-95 efforts associated with Technical Centers resulted in an elimination of nearly 13,000 workyears of technical capacity and an elimination of nearly 4,000 positions. Many of the JCSG alternatives were accommodated by the elimination of nineteen DON commands, half of which resulted in complete site closures. Much more DON technical capacity was reduced by the DON recommendations than was suggested within the JCSG reports.

Conclusion

The substantial BRAC-95 actions in the Technical Centers subcategory reflect the difficulty in assessing these activities experienced in prior BRAC rounds. The results are consistent with the DON policies to provide support to the fleet, reduce excess and duplicative infrastructure, and retain unique in-house capabilities. Additional solutions were evaluated by looking cross-Department for alternative solutions, possible cost-effective out-sourcing solutions, and moving depot work from technical activities to depot activities. The result is a significant restructuring of DON Technical Centers and Laboratories that builds on the proven concept of full spectrum centers and retains essential specialized coverage of key DON technological areas.

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ATTACHMENT X-1

RECOMMENDATION FOR CLOSURE

NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION DETACHMENT, ANNAPOLIS, MARYLAND

Recommendation: Close the Naval Surface Warfare Center, Carderock Division Detachment, Annapolis, Maryland, including the NIKE Site, Bayhead Road, Annapolis, except transfer the fuel storage/refueling sites and the water treatment facilities to Naval Station, Annapolis to support the U.S. Naval Academy and Navy housing. Relocate appropriate functions, personnel, equipment and support to other technical activities, primarily Naval Surface Warfare Center, Carderock Division Detachment, Philadelphia, Pennsylvania; Naval Surface Weapons Center, Carderock Division, Carderock, Maryland; and the Naval Research Laboratory, Washington, D.C. The Joint Spectrum Center, a DoD cross-service tenant, will be relocated with other components of the Center in the local area as appropriate.

Justification: There is an overall reduction in operational forces and a sharp decline of the Department of the Navy budget through 2001. Specific reductions for technical centers are difficult to determine because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. The total closure of this technical center reduces overall excess capacity in this category of installations, as well as excess capacity specific to this particular installation. It results in synergistic efficiencies by eliminating a major site and collocating technical personnel at the two primary remaining sites involved in hull, machinery, and equipment associated with naval vessels. It allows the movement of work to other Navy, DoD, academic and private industry facilities, and the excessing of some facilities not in continuous use. It also collocates RDT&E efforts with the In-Service Engineering work and facilities, to incorporate lessons learned from fleet operations and to increase the technical response pool to solve immediate problems.

Return on Investment: The total estimated one-time cost to implement this recommendation is $25 million. The net of all costs and savings during the implementation period is a savings of $36.7 million. Annual recurring savings after implementation are $14.5 million with a return on investment expected in one year. The net present value of the costs and savings over 20 years is a savings of $175.1 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 1512 jobs (522 direct jobs and 990 indirect jobs) over the 1996-to-2001 period in the Baltimore, Maryland PMSA economic area, which is 0.1 percent of economic area employment.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NSWC Annapolis does not involve the transfer of any industrial-type activities. NSWC Carderock and NRL are currently in moderate non-attainment for CO and attainment for PM-10; however, the movement of personnel into those areas will not adversely impact the environment in those areas. NSWC Philadelphia is in a non-attainment area for CO. In the case of each receiving site, a conformity determination may be required to assess the impact of this action. At all receiving sites, the utility infrastructure is adequate to handle the additional personnel. Also, there is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, cultural/historical resources as a result of this recommendation.

ATTACHMENT X-2

RECOMMENDATION FOR REALIGNMENT

OFFICE OF NAVAL RESEARCH, ARLINGTON, VIRGINIA REDIRECT

Recommendation: Change the recommendation of the 1993 Commission (1993 Commission Report, at pages 1-59/60) by deleting the Office of Naval Research from the list of National Capital Region activities to relocate from leased space to Government-owned space within the NCR.

Justification: Because of other BRAC-95 actions, space designated for this activity pursuant to the BRAC-93 decision is no longer available. Other Navy-owned space in the NCR would require substantial new construction in order to house this activity. Permitting the Office of Naval Research to remain in its present location not only avoids this new construction, but also realizes the synergy obtained by having the activity located in proximity to the Advanced Research Projects Agency and the National Science Foundation. Further, this action provides the opportunity for future collocation of like activities from the other Military Departments, with the attendant joint synergies which could be realized. While this action results in a recurring cost, the cost is minimal in light of the importance of these two significant opportunities.

Return on Investment: While the annual costs for this activity to remain in leased space are higher than operating costs paid for government-owned space, relocation to government-owned space would require new construction. The cost of that new construction is more than would be saved by this move over a twenty-year period. COBRA analysis of the BRAC-93 recommendation in view of the changed circumstances regarding availability of space in the National Capital Region reveals that relocation of this activity would not result in a reasonable return on investment.

Impacts:

Economic Impact on Communities: This recommendation will not result in a change in employment in the Washington, DC-Maryland-Virginia-West Virginia PMSA economic area because all affected jobs will remain in that economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: Locating this activity in Arlington, Virginia instead of at either the Washington Navy Yard or Nebraska Avenue generally will have a positive impact on the environment because new facilities will not have to be constructed. Both the current site and the sites considered as receivers are in the same air quality district; thus, there will be no impact on air quality. There is no adverse impact on

threatened/endangered species, sensitive habitat and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-3

RECOMMENDATION FOR CLOSURE

NAVAL MEDICAL RESEARCH INSTITUTE, BETHESDA, MARYLAND

Recommendation: Close the Naval Medical Research Institute, Bethesda, Maryland. Consolidate the personnel of the Diving Medicine Program with the Experimental Diving Unit, Naval Surface Warfare Center, Dahlgren Division, Coastal Systems Station, Panama City, Florida. Relocate the Infectious Diseases, Combat Casualty Care and Operational Medicine programs along with necessary personnel and equipment to the Walter Reed Army Institute for Research at Forest Glen, Maryland.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. This closure and realignment achieves a principal objective of the DoD by joint servicing part of this laboratory's workload and furthers the BRAC-91 Tri-Service Project Reliance Study decision by collocating medical research with the Army. Other portions of that workload can be assumed by another Navy installation with only a transfer of certain personnel, achieving both a reduction in excess capacity and a cost savings by eliminating a redundant capability in the area of diving research.

Return on Investment: The total estimated one-time cost to implement this recommendation is $3.4 million. The net of all costs and savings during the implementation period is a savings of $19 million. Annual recurring savings after implementation are $9.5 million with a return on investment expected in one year. The net present value of the costs and savings over 20 years is a savings of $111 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 226 jobs (146 direct jobs and 80 indirect jobs) over the 1996-to-2001 period in the Washington, DC-Maryland-Virginia-West Virginia PMSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 0.6 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NMRI Bethesda will have a minimal impact on the environment. The relocation of personnel to Panama City, Florida, represents a net reduction in FY 2001 compared to current personnel loading. Therefore, these additional personnel will have no significant impact on the environment at that receiving site. The addition of personnel transferring to the Walter Reed Army Institute for Research represents less than a 1 percent increase in personnel, with insignificant impacts on the environment. There is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, and cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-4

RECOMMENDATION FOR CLOSURE

NAVAL MANAGEMENT SYSTEMS SUPPORT OFFICE, CHESAPEAKE, VIRGINIA

Recommendation: Disestablish the Naval Management Systems Support Office, Chesapeake, Virginia, and relocate its functions and necessary personnel and equipment as a detachment of Naval Command, Control and Ocean Surveillance Center, San Diego, California, in government-owned spaces in Norfolk, Virginia.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. The disestablishment of this activity permits the elimination of the command and support structure of this activity and the consolidation of certain functions with a major technical center. This recommendation also provides for the movement out of leased space into government-owned space, a move which had been intended to occur as part of the DON BRAC-93 recommended consolidation of the Naval Electronic Systems Engineering Centers in Portsmouth, which the 1993 Commission disapproved.

Return on Investment: The total estimated one-time cost to implement this recommendation is $2.2 million. The net of all costs and savings during the implementation period is a savings of $9 million. Annual recurring savings after implementation are $2.7 million with a return on investment expected in one year. The net present value of the costs and savings over 20 years is a savings of $34.9 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 50 jobs (21 direct jobs and 29 indirect jobs) over the 1996-to-2001 period in the Norfolk-Virginia Beach-Newport News, Virginia-North Carolina MSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential increase equal to 1.0 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The disestablishment of NAVMASSO will not impact the environment. NAVMASSO is an administrative activity that is currently located in leased space only 18 miles from its gaining site, the Norfolk Naval Station. These additional personnel readily can be handled by the utility infrastructure at the gaining site. Also, there is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-5

RECOMMENDATION FOR CLOSURE

NAVAL AIR WARFARE CENTER, AIRCRAFT DIVISION, INDIANAPOLIS, INDIANA

Recommendation: Close the Naval Air Warfare Center, Aircraft Division, Indianapolis, Indiana. Relocate necessary functions along with associated personnel, equipment and support to other naval technical activities, primarily Naval Surface Warfare Center, Crane, Indiana; Naval Air Warfare Center, Aircraft Division, Patuxent River, Maryland; and Naval Air Warfare Center, Weapons Division, China Lake, California.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. This recommended closure results in the closure of a major technical center and the relocation of its principal functions to three other technical centers, realizing both a reduction in excess capacity and significant economies while raising aggregate military value.

Return on Investment: The return on investment data below applies to the closure of NSWC Louisville and the closure of NAWC Indianapolis. The total estimated one-time cost to implement these recommendations is $180 million. The net of all costs and savings during the implementation period is a cost of $26.8 million. Annual recurring savings after implementation are $67.8 million with a return on investment expected in two years. The net present value of the costs and savings over 20 years is a savings of $639.9 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 7659 jobs (2841 direct jobs and 4818 indirect jobs) over the 1996-to-2001 period in the Boone-Hamilton-Hancock-Hendricks-Johnson-Marion-Morgan-Shelby Counties, Indiana economic area, which is 0.9 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 2.2 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NAWC Indianapolis will have a positive effect on the environment because of the movement out of a region that is in marginal non-attainment for ozone. All three of the receiving sites (NSWC Crane, NAWC China Lake, and NAWC Patuxent River) are in areas that are in attainment for CO, and the relocation of personnel from Indianapolis is not expected to have a significant effect on base operations at these sites. The utility infrastructure at each of these receiving bases is sufficient to handle these additional personnel, and this closure will not adversely impact threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources.

ATTACHMENT X-6

RECOMMENDATION FOR REALIGNMENT

NAVAL UNDERSEA WARFARE CENTER, KEYPORT, WASHINGTON

Recommendation: Realign Naval Undersea Warfare Center, Keyport, Washington, by moving its ships' combat systems console refurbishment depot maintenance and general industrial workload to Naval Shipyard, Puget Sound, Bremerton, Washington.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. Consistent with the Department of the Navy's efforts to remove depot level maintenance workload from technical centers and return it to depot industrial activities, this action consolidates ship combat systems workload at NSYD Puget Sound, but retains electronic test and repair equipments at NUWC Keyport, as well as torpedo depot maintenance, thereby removing the need to replicate facilities. The workload redistribution also furthers the Pacific Northwest Regional Maintenance Center initiatives, more fully utilizes the capacity at the shipyard, and will achieve greater productivity efficiencies within the shipyard.

Return on Investment: The total estimated one-time cost to implement this recommendation is $2.1 million. The net of all costs and savings during the implementation period is a savings of $9.8 million. Annual recurring savings after implementation are $2.1 million with a return on investment expected in one year. The net present value of the costs and savings over 20 years is a savings of $29.7 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 58 jobs (28 direct jobs and 30 indirect jobs) over the 1996-to-2001 period in the Bremerton, Washington PMSA economic area, which is 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential increase equal to 7.3 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: This recommendation involves the transfer of functions and associated personnel between NUWC Keyport and the Puget Sound Naval Shipyard, both of which are in the same air quality region. The reduction of personnel resulting from this transfer will have a generally positive impact on the environment. There are no impacts on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-7

RECOMMENDATION FOR CLOSURE

NAVAL AIR WARFARE CENTER, AIRCRAFT DIVISION, LAKEHURST, NEW JERSEY

Recommendation: Close Naval Air Warfare Center, Aircraft Division, Lakehurst, New Jersey, except transfer in place certain facilities and equipment to the Naval Air Warfare Center, Aircraft Division, Patuxent River, Maryland. Relocate other functions and associated personnel and equipment to the Naval Air Warfare Center, Aircraft Division, Patuxent River, Maryland and the Naval Aviation Depot, Jacksonville, Florida. Relocate the Naval Air Technical Training Center Detachment, Lakehurst, to Naval Air Station, Pensacola, Florida. Relocate Naval Mobile Construction Battalion 21, the U.S. Army CECOM Airborne Engineering Evaluation Support Activity, and the Defense Reutilization and Marketing Office to other government-owned spaces.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. The closure and realignment of this activity permits the elimination of the command and support structure of this activity and the consolidation of its most critical functions at a major technical center, allowing synergism with its parent command and more fully utilizing available capabilities at major depot activities. This recommendation retains at Lakehurst only those facilities and personnel essential to conducting catapult and arresting gear testing and fleet support.

Return on Investment: The total estimated one-time cost to implement this recommendation is $96.9 million. The net of all costs and savings during the implementation period is a cost of $5 million. Annual recurring savings after implementation are $37.2 million with a return on investment expected in three years. The net present value of the costs and savings over 20 years is a savings of $358.7 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 4126 jobs (1763 direct jobs and 2363 indirect jobs) over the 1996-to-2001 period in the Monmouth-Ocean, New Jersey PMSA economic area, which is 1.0 percent of economic area employment. The

cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential increase equal to 1.1 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NAWC Lakehurst will have a generally positive impact on the environment because of the relocation of appropriate functions and personnel out of an area that is in severe non-attainment for ozone. NAWC Patuxent River is currently in attainment for CO, and the additional functions and personnel are not expected to significantly affect this status. While NAS Jacksonville is in an attainment area for CO, it is in a transitional area for ozone. The relocation of functions and personnel to NAS Jacksonville are not expected to significantly affect this status. Each of the gaining sites have sufficient capacity in their respective utility infrastructure to handle the additional personnel. There is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-8

RECOMMENDATION FOR CLOSURE

NAVAL SURFACE WARFARE CENTER, CRANE DIVISION DETACHMENT, LOUISVILLE, KENTUCKY

Recommendation: Close the Naval Surface Warfare Center, Crane Division Detachment, Louisville, Kentucky. Relocate appropriate functions, personnel, equipment, and support to other naval activities, primarily the Naval Shipyard, Norfolk, Virginia; the Naval Surface Warfare Center, Port Hueneme, California; and the Naval Surface Warfare Center, Crane, Indiana.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. Consistent with the Department of the Navy's efforts to remove depot level maintenance workload from technical centers and return it to depot industrial activities, this action consolidates ships' systems (guns) depot and general industrial workload at NSYD Norfolk, which has many of the required facilities in place. The functional distribution of workload in this manner offers an opportunity for cross-servicing part of the gun plating workload to the Watervliet Arsenal in New York. System integration engineering will relocate to NSWC Port Hueneme, with the remainder of the engineering workload and Close-in-Weapons System (CIWS) depot maintenance functions relocating to NSWC Crane. The closure of this activity not only reduces excess capacity, but relocation of functional workload to activities performing similar work will result in additional efficiencies and economies in the management of those functions.

Return on Investment: The return on investment data below applies to the closure of NSWC Louisville and the closure of NAWC Indianapolis. The total estimated one-time cost to implement these recommendations is $180 million. The net of all costs and savings during the implementation period is a cost of $26.8 million. Annual recurring savings after implementation are $67.8 million with a return on investment expected in two years. The net present value of the costs and savings over 20 years is a savings of $639.9 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 3791 jobs (1464 direct

jobs and 2327 indirect jobs) over the 1996-to-2001 period in the Louisville, Kentucky-Indiana MSA economic area, which is 0.7 percent of economic area employment.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NSWC Louisville will have a generally positive impact on the environment because a major industrial operation will be closing in an area that is in moderate non-attainment for ozone. To the extent the relocations from this recommendation trigger the requirement for a conformity determination to assess the impact on the air quality of the areas in which each of the receiving sites are located, such determinations will be prepared. One of the most significant environmental benefits resulting from this recommendation is the transfer of workload from NSWC Louisville to the Watervliet Arsenal, New York, to accomplish plating operations which the Norfolk Naval Shipyard currently cannot perform. This transfer reduces the DoD-wide facilities required to perform the programmed plating work. There are no impacts on threatened/endangered species, sensitive habitats and wetlands, or cultural resources occasioned by this recommendation.

ATTACHMENT X-9

RECOMMENDATION FOR CLOSURE

NAVAL UNDERSEA WARFARE CENTER, NEWPORT DIVISION, NEW LONDON DETACHMENT, NEW LONDON, CONNECTICUT

Recommendation: Disestablish the Naval Undersea Warfare Center, Newport Division, New London Detachment, New London, Connecticut, and relocate necessary functions with associated personnel, equipment, and support to Naval Undersea Warfare Center, Newport Division, Newport, Rhode Island. Close the NUWC New London facility, except retain Pier 7 which is transferred to the Navy Submarine Base New London. The site presently occupied by the U.S. Coast Guard Station, New London, will be transferred to the U.S. Coast Guard. The Navy Submarine Base, New London, Magnetic Silencing Facility will remain in its present location as a tenant of the U.S. Coast Guard. Naval reserve units will relocate to other naval activities, primarily NUWC Newport, Rhode Island, and Navy Submarine Base, New London, Connecticut.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. The closure of this activity completes the undersea warfare center consolidation begun in BRAC-91. It not only reduces excess capacity, but, by consolidating certain functions at NUWC Newport Rhode Island, achieves efficiencies and economies in management, thus reducing costs.

Return on Investment: The total estimated one-time cost to implement this recommendation is $23.4 million. The net of all costs and savings during the implementation period is a savings of $14.3 million. Annual recurring savings after implementation are $8.1 million with a return on investment expected in three years. The net present value of the costs and savings over 20 years is a savings of $91.2 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 1365 jobs (627 direct jobs and 738 indirect jobs) over the 1996-to-2001 period in the New London-Norwich, Connecticut NECMA economic area, which is 1.0 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round

BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 3.2 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NUWC New London will have a generally beneficial impact on the environment. New London is in a non-attainment area for ozone, and, accordingly, the closure of this site will have a positive effect on the environment. The movement of personnel to Newport will not impact that area's status of being in attainment for CO and PM-10. Adequate capacity exists in NUWC's utility infrastructure to handle these relocating personnel without impact. There is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources at either the losing or gaining sites occasioned by this recommendation.

ATTACHMENT X-10

RECOMMENDATION FOR CLOSURE

NAVAL BIODYNAMICS LABORATORY, NEW ORLEANS, LOUISIANA

Recommendation: Close the Naval Biodynamics Laboratory, New Orleans, Louisiana, and relocate necessary personnel to Wright-Patterson Air Force Base, Dayton, Ohio, and Naval Aeromedical Research Laboratory, Pensacola, Florida.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. Closure of this laboratory reduces this excess capacity and fosters joint synergism. It also provides the opportunity for the transfer of its equipment and facilities to the public educational or commercial sector, thus maintaining access to its capabilities on an as-needed basis.

Return on Investment: The total estimated one-time cost to implement this recommendation is $.6 million. The net of all costs and savings during the implementation period is a savings of $14.1 million. Annual recurring savings after implementation are $2.9 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $41.8 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 126 jobs (54 direct jobs and 72 indirect jobs) over the 1996-to-2001 period in the New Orleans, Louisiana MSA economic area, which is less than 0.1 percent of economic area employment.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of the Biodynamics Lab, New Orleans, will not have an effect on the environment. This closure recommendation only relocates two personnel to Wright-Patterson AFB and one to Pensacola, but leaves all facilities and equipment in place. There is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, and cultural/historical resources occasioned by this recommendation.

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ATTACHMENT X-11

RECOMMENDATION FOR CLOSURE

NAVAL COMMAND, CONTROL AND OCEAN SURVEILLANCE CENTER, IN-SERVICE ENGINEERING EAST COAST DETACHMENT, NORFOLK, VIRGINIA

Recommendation: Close the In-Service Engineering East Coast Detachment, St. Juliens Creek Annex, Norfolk, Virginia, of the Naval Command, Control and Ocean Surveillance Center, except retain in place the transmit and receive equipment and antennas currently at the St. Juliens Creek Annex. Relocate functions, necessary personnel and equipment to Norfolk Naval Shipyard, Norfolk, Virginia.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. The closure of this activity and the relocation of its principal functions achieves improved efficiencies and a reduction of excess capacity by aligning its functions with other fleet support provided by the shipyard.

Return on Investment: The total estimated one-time cost to implement this recommendation is $4.6 million. The net of all costs and savings during the implementation period is a savings of $61 thousand. Annual recurring savings after implementation are $2.1 million with a return on investment expected in three years. The net present value of the costs and savings over 20 years is a savings of $20.4 million.

Impacts:

Economic Impact on Communities: This recommendation will not result in a change in employment in the Norfolk-Virginia Beach-Newport News, Virginia-North Carolina MSA economic area because all affected jobs will remain in that economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NCCOSC ISE East Det Norfolk, St. Juliens Creek Annex, will have no appreciable impact on the environment since all relocation of personnel will be within the local area and within the same air quality

region. There is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-12

RECOMMENDATION FOR CLOSURE

NAVAL AIR WARFARE CENTER, AIRCRAFT DIVISION, OPEN WATER TEST FACILITY, ORELAND, PENNSYLVANIA

Recommendation: Close the Naval Air Warfare Center, Aircraft Division, Open Water Test Facility, Oreland, Pennsylvania.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. Closure of this facility reduces excess capacity by eliminating unnecessarily redundant capability, since requirements can be met by reliance on other lakes that exist in the DON inventory.

Return on Investment: The total estimated one-time cost to implement this recommendation is $50 thousand. The net of all costs and savings during the implementation period is a savings of $33 thousand. Annual recurring savings after implementation are $15 thousand with a return on investment expected in three years. The net present value of the costs and savings over 20 years is a savings of $.2 million.

Impacts:

Economic Impact on Communities: This recommendation will not affect any jobs in the Philadelphia, Pennsylvania-New Jersey PMSA economic area.

Community Infrastructure Impact: There is no community infrastructure impact since there are no receiving installations for this recommendation.

Environmental Impact: The closure of the NAWC OWTF Oreland will have a beneficial effect on the environment since any impact of military activities on jurisdictional wetlands will be eliminated. Because this closure has no accompanying transfer of functions or personnel, there are no other environmental impacts associated with this closure. There will be no adverse impact on threatened/endangered species, sensitive habitats, or cultural/historical resources occasioned by this recommendation.

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ATTACHMENT X-13

RECOMMENDATION FOR CLOSURE

NAVAL RESEARCH LABORATORY, UNDERWATER SOUND REFERENCE DETACHMENT, ORLANDO, FLORIDA

Recommendation: Disestablish the Naval Research Laboratory, Underwater Sound Reference Detachment, Orlando, Florida. Relocate the calibration and standards function with associated personnel, equipment, and support to the Naval Undersea Warfare Center, Newport Division, Newport, Rhode Island, except for the Anechoic Tank Facility I, which will be excessed.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. The disestablishment of this laboratory reduces excess capacity by eliminating unnecessarily redundant capability, since requirements can be met by reliance on alternative lakes that exist in the DON inventory. By consolidating necessary functions at NUWC Newport, Rhode Island, this recommendation achieves efficiencies and economies.

Return on Investment: The total estimated one-time cost to implement this recommendation is $8.4 million. The net of all costs and savings during the implementation period is a savings of $3.7 million. Annual recurring savings after implementation are $2.8 million with a return on investment expected in three years. The net present value of the costs and savings over 20 years is a savings of $30.1 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 292 jobs (109 direct jobs and 183 indirect jobs) over the 1996-to-2001 period in the Orange-Osceola-Seminole Counties, Florida economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 1.9 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NRL UWSRD Orlando generally will have a minor positive impact on the environment. Both Orlando and NUWC Newport are in areas of attainment for CO, and the additional personnel relocating to Newport, when compared to force structure reductions by FY 2001, still represent a net decrease in personnel at the Newport site. The utility infrastructure at the receiving site is sufficient to handle the relocating personnel. There is no adverse impact to threatened/endangered species, sensitive habitats and wetlands, and cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-14

RECOMMENDATION FOR CLOSURE

NAVAL AIR TECHNICAL SERVICES FACILITY, PHILADELPHIA, PENNSYLVANIA

Recommendation: Close the Naval Air Technical Services Facility, Philadelphia, Pennsylvania, and consolidate necessary functions, personnel, and equipment with the Naval Aviation Depot, North Island, California.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. Closure of this facility eliminates excess capacity within the technical center subcategory by using available capacity at NADEP North Island and achieves the synergy from having the drawings and manuals collocated with an in-service maintenance activity at a major fleet concentration. Additionally, it enables the elimination of the NATSF detachment already at North Island and results in a reduction of costs.

Return on Investment: The total estimated one-time cost to implement this recommendation is $5.7 million. The net of all costs and savings during the implementation period is a savings of $1.5 million. Annual recurring savings after implementation are $2.2 million with a return on investment expected in three years. The net present value of the costs and savings over 20 years is a savings of $22.7 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 715 jobs (227 direct jobs and 488 indirect jobs) over the 1996-to-2001 period in the Philadelphia, Pennsylvania-New Jersey PMSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 1.2 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NATSF Philadelphia will have a generally positive effect on the environment because this activity will be vacating leased space in an area that is in non-attainment for CO. The additional personnel being relocated represent less than a 1 percent increase in base personnel at North Island, and adequate capacity exists in the utility infrastructure to handle this additional personnel loading. There will be no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-15

RECOMMENDATION FOR CLOSURE

NAVAL AVIATION ENGINEERING SERVICE UNIT, PHILADELPHIA, PENNSYLVANIA

Recommendation: Close the Naval Aviation Engineering Service Unit, Philadelphia, Pennsylvania, and consolidate necessary functions, personnel, and equipment with the Naval Aviation Depot, North Island, California.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. Closure of this facility eliminates excess capacity within the technical center subcategory by using available capacity at NADEP North Island. Additionally, it enables the consolidation of necessary functions with a depot activity performing similar work and results in a reduction of costs.

Return on Investment: The total estimated one-time cost to implement this recommendation is $2.5 million. The net of all costs and savings during the implementation period is a savings of $5.9 million. Annual recurring savings after implementation are $2.5 million with a return on investment expected in one year. The net present value of the costs and savings over 20 years is a savings of $29.5 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 145 jobs (90 direct jobs and 55 indirect jobs) over the 1996-to-2001 period in the Philadelphia, Pennsylvania-New Jersey PMSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 1.2 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NAESU Philadelphia will have a generally positive impact on the environment because it removes POV air emission sources from an area that is in non-attainment for CO. The additional personnel relocating to NADEP North Island represent less than a 1 percent increase in current base personnel loading, which will not affect the environment. Further, the utility infrastructure capacity at the receiving site is sufficient to handle these additional personnel. There is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-16

RECOMMENDATION FOR CLOSURE

NAVAL COMMAND, CONTROL AND OCEAN SURVEILLANCE CENTER, IN-SERVICE ENGINEERING WEST COAST DIVISION, SAN DIEGO, CALIFORNIA

Recommendation: Disestablish the In-Service Engineering West Coast Division (NISE West), San Diego, California, of the Naval Command, Control and Ocean Surveillance Center (NCCOSC), including the Taylor Street Special Use Area, and consolidate necessary functions and personnel with the Naval Command, Control and Ocean Surveillance Center, RDT&E Division, either in the NCCOSC RDT&E Division spaces at Point Loma, California, or in current NISE West spaces in San Diego, California.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. This action permits the elimination of the command and support structure of the closing activity resulting in improved efficiency, reduced costs, and reduced excess capacity.

Return on Investment: The total estimated one-time cost to implement this recommendation is $1.8 million. The net of all costs and savings during the implementation period is a savings of $19.3 million. Annual recurring savings after implementation are $4.3 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $60 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 168 jobs (58 direct jobs and 110 indirect jobs) over the 1996-to-2001 period in the San Diego, California MSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential increase equal to 1.2 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NISE West San Diego will have no appreciable impact on the environment since all relocation of personnel will be within the local area and within the same air quality district. The gaining sites have sufficient space for rehabilitation and adequate capacity in the utility infrastructure to handle this additional load. There is no impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-17

RECOMMENDATION FOR CLOSURE

NAVAL HEALTH RESEARCH CENTER, SAN DIEGO, CALIFORNIA

Recommendation: Disestablish the Naval Health Research Center, San Diego, California, and relocate necessary functions, personnel and equipment to the Bureau of Naval Personnel at Memphis, Tennessee.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. This activity performs research and modelling and maintains databases in a number of personnel health and performance areas, and its consolidation with the Bureau of Naval Personnel not only reduces excess capacity but also aligns this activity with the DON's principal organization responsible for military personnel and the primary user of its products. The resulting synergy enhances the discharge of this responsibility while achieving necessary economies.

Return on Investment: The total estimated one-time cost to implement this recommendation is $6.2 million. The net of all costs and savings during the implementation period is a cost of $2 million. Annual recurring savings after implementation are $1.4 million with a return on investment expected in four years. The net present value of the costs and savings over 20 years is a savings of $11.4 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 423 jobs (154 direct jobs and 269 indirect jobs) over the 1996-to-2001 period in the San Diego, California MSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential increase equal to 1.2 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The disestablishment of NHRC San Diego will have a positive impact on the environment in that this activity will be leaving an area that is in moderate non-attainment for CO. The additional personnel being relocated to BUPERS Memphis represent a net decrease in personnel by FY 2001, and, accordingly, will not impact the environment at the receiving site, although a conformity determination may be required to assess this impact. There is adequate capacity in the utility infrastructure at the receiving site to handle these relocating personnel. There is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-18

RECOMMENDATION FOR CLOSURE

NAVAL PERSONNEL RESEARCH AND DEVELOPMENT CENTER, SAN DIEGO, CALIFORNIA

Recommendation: Disestablish Naval Personnel Research and Development Center, San Diego, California, and relocate its functions, and appropriate personnel, equipment, and support to the Bureau of Naval Personnel, Memphis, Tennessee, and Naval Air Warfare Center, Training Systems Division, Orlando, Florida.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. Disestablishment of this technical center not only eliminates excess capacity but also collocates its functions with the primary user of its products. This recommendation permits the consolidation of appropriate functions at the new headquarters concentration for the Bureau of Naval Personnel in Memphis, Tennessee, and at the technical concentration for training systems and devices in Orlando, producing economies and efficiencies in the management of these functions.

Return on Investment: The total estimated one-time cost to implement this recommendation is $7.9 million. The net of all costs and savings during the implementation period is a cost of $4.3 million. Annual recurring savings after implementation are $1.9 million with a return on investment expected in four years. The net present value of the costs and savings over 20 years is a savings of $14.9 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 611 jobs (219 direct jobs and 392 indirect jobs) over the 1996-to-2001 period in the San Diego, California MSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential increase equal to 1.2 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: Disestablishing NPRDC San Diego will have a generally positive effect on the environment because it will be relocating personnel out of an area currently in severe non-attainment for ozone. These personnel represent less than a 2 percent increase in the personnel at BUPERS Memphis, an area in moderate non-attainment for CO, and thus will have a minimal impact on that region, although a conformity determination may be required to assess the impact on air quality from this action. Those personnel that are relocating to NAWCTSD Orlando, an area that is in attainment for CO, represent less than a 4 percent increase in personnel and will not adversely affect that area. There will be no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-19

RECOMMENDATION FOR CLOSURE

NAVAL AIR WARFARE CENTER, AIRCRAFT DIVISION, WARMINSTER, PENNSYLVANIA

Recommendation: Close the Naval Air Warfare Center, Aircraft Division, Warminster, Pennsylvania. Relocate appropriate functions, personnel, equipment, and support to other technical activities, primarily the Naval Air Warfare Center, Aircraft Division, Patuxent River, Maryland.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. The closure of this activity reduces excess capacity with the resultant efficiencies and economies in the consolidation of the relocated functions with its parent command at the new receiving site. Additionally, it completes the process of realignment initiated in BRAC-91, based on a clearer understanding of what is now required to be retained in-house. Closure and excessing of the Human Centrifuge/Dynamic Flight Simulator Facility further reduces excess capacity and provides the opportunity for the transfer of this facility to the public educational or commercial sectors, thus maintaining access on an as-needed basis.

Return on Investment: The return on investment data below applies to the closure of NAWC Warminster and the closure of NCCOSC Det Warminster. The total estimated one-time cost to implement this recommendation is $8.4 million. The net of all costs and savings during the implementation period is a savings of $33.1 million. Annual recurring savings after implementation are $7.6 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $104.6 million.

Impacts:

Economic Impact on Communities: The economic data below applies to the closure of NAWC Warminster and the closure of NCCOSC Det Warminster. Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 1080 jobs (348 direct jobs and 732 indirect jobs) over the 1996-to-2001 period in the Philadelphia, Pennsylvania-New Jersey PMSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over

the 1994-to-2001 period could result in a maximum potential decrease equal to 1.2 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of both NAWC Warminster and NCCOSC Det Warminster will have a positive effect on the environment because their appropriate functions and personnel will be relocated out of an area that is in severe non-attainment for ozone and from an activity that is included on the National Priorities List. The personnel being relocated to NAWC Patuxent River represent an increase in personnel of less than 1 percent, which is not considered of sufficient size to adversely impact the environment at that site. However, a conformity determination may be required to determine this impact. The utility infrastructure capacity at NAWC Patuxent River is sufficient to handle the additional loading. There is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-20

RECOMMENDATION FOR CLOSURE

NAVAL COMMAND, CONTROL AND OCEAN SURVEILLANCE CENTER, RDT&E DIVISION DETACHMENT, WARMINSTER, PENNSYLVANIA

Recommendation: Close the Naval Command, Control and Ocean Surveillance Center, RDT&E Division Detachment, Warminster, Pennsylvania. Relocate appropriate functions, personnel, equipment, and support to other technical activities, primarily the Naval Command, Control and Ocean Surveillance Center, RDT&E Division, San Diego, California; and the Naval Oceanographic Office, Bay St. Louis, Mississippi.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. The closure of this activity reduces excess capacity with the resultant efficiencies and economies in the management of the relocated functions at the new receiving sites. Additionally, it completes the process of realignment initiated in BRAC-91, based on a clearer understanding of what is now required to be retained in-house. Closure and excessing of the Inertial Navigational Facility further reduces excess capacity and provides the opportunity for the transfer of these facilities to the public educational or commercial sectors, thus maintaining access on an as-needed basis.

Return on Investment: The return on investment data below applies to the closure of NAWC Warminster and the closure of NCCOSC Det Warminster. The total estimated one-time cost to implement this recommendation is $8.4 million. The net of all costs and savings during the implementation period is a savings of $33.1 million. Annual recurring savings after implementation are $7.6 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $104.6 million.

Impacts:

Economic Impact on Communities: The economic data below applies to the closure of NAWC Warminster and the closure of NCCOSC Det Warminster. Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 1080 jobs (348 direct jobs and 732 indirect jobs) over the 1996-to-2001 period in the Philadelphia, Pennsylvania-New Jersey PMSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all

BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 1.0 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of both NAWC Warminster and NCCOSC Det Warminster will have a positive effect on the environment because their appropriate functions and personnel will be relocated out of an area that is in severe non-attainment for ozone and from an activity that is included on the National Priorities List. The personnel being relocated to NCCOSC San Diego represent an increase in personnel of less than 6 percent, which is not considered of sufficient size to adversely impact the environment at that sites. However, a conformity determination may be required to determine this impact. At both receiving sites, the utility infrastructure capacity is sufficient to handle the additional loading. There is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT X-21

RECOMMENDATION FOR CLOSURE

NAVAL SURFACE WARFARE CENTER, DAHLGREN DIVISION DETACHMENT, WHITE OAK, MARYLAND

Recommendation: Close the Naval Surface Warfare Center, Dahlgren Division Detachment, White Oak, Maryland. Relocate the functions, personnel and equipment associated with Ship Magnetic Signature Control R&D Complex to the Naval Surface Warfare Center, Carderock, Maryland, and the functions and personnel associated with reentry body dynamics research and development to the Naval Surface Warfare Center, Dahlgren, Virginia.

Justification: There is an overall reduction in operational forces and a sharp decline of the DON budget through FY 2001. Specific reductions for technical centers are difficult to determine, because these activities are supported through customer orders. However, the level of forces and of the budget are reliable indicators of sharp declines in technical center workload through FY 2001, which leads to a recognition of excess capacity in these activities. This excess and the imbalance in force and resource levels dictate closure/realignment or consolidation of activities wherever practicable. Closure of the Naval Surface Warfare Center, Dahlgren Division Detachment, White Oak, Maryland, reduces this excess capacity, and its consolidation with two other major technical centers that already have capability will result in further economies and efficiencies. This closure also eliminates unnecessary capabilities, since a few Navy facilities were left at NSWC White Oak only because Naval Sea Systems Command was relocating there as a result of BRAC-93. However, those facilities can be excessed, and the Naval Sea Systems Command can be easily accommodated at the Washington Navy Yard.

Return on Investment: The total estimated one-time cost to implement this recommendation is $2.9 million. The net of all costs and savings during the implementation period is a savings of $28.7 million. Annual recurring savings after implementation are $6 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $85.9 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 646 jobs (202 direct jobs and 444 indirect jobs) over the 1996-to-2001 period in the Washington, DC-Maryland-Virginia-West Virginia PMSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-

to-2001 period could result in a maximum potential decrease equal to 0.6 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The closure of NSWC White Oak Det will have a generally positive impact on the environment. A portion of the personnel being relocated will transfer to NSWC Dahlgren, which is in an area that is in attainment for CO. As regards personnel movements to NSWC Carderock, a conformity determination may be required to assess any air quality impacts. In each case, however, the personnel relocating, when compared to expected force structure reductions by FY 2001, represent a net decrease in base personnel. There is adequate capacity in the utility infrastructure at the receiving sites to handle additional personnel loading. Likewise, there is sufficient space for rehabilitation or acreage of unrestricted land for expansion for new facilities. There is no adverse impact to threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT Y

DESCRIPTION OF ANALYSIS OF ADMINISTRATIVE ACTIVITIES

The activities evaluated under the heading of Administrative Activities generally are those activities that provide management oversight of a procurement function, manage a program, or manage a unique area (such as brig facilities) that are not easily aggregated with the other DON BRAC-95 subcategories of activities. This subcategory included the following activities:

Naval Ordnance Test Unit (NOTU), Cape Canaveral, Florida
Naval Education and Training Program Management Support Activity (NETPMSA), Pensacola, Florida
Naval Support Activity (NSA), New Orleans, Louisiana
Naval Air Systems Command (NAVAIR), Patuxent River, Maryland
Office of Naval Intelligence (ONI), Suitland, Maryland
Naval Sea Systems Command (NAVSEA), White Oak, Maryland
Marine Corps Support Activity (MCSA), Kansas City, Missouri
1st Marine Corps District, Garden City (1ST MCD), New York
Naval Administrative Unit (NAU), Scotia, New York
Naval Consolidated Brig (NAVCONBRIG), Charleston, South Carolina
Bureau of Naval Personnel (BUPERS), Memphis, Tennessee
Office of the Judge Advocate General (OJAG), Alexandria, Virginia
Naval Facilities Engineering Command (NAVFAC), Alexandria, Virginia
Human Resources Office (HRO CC), Arlington, Virginia
Navy International Programs Office (NAV IPO), Arlington, Virginia
Office of Civilian Personnel Management (OCPM), Arlington, Virginia
Naval Center for Cost Analysis (NCCA), Arlington, Virginia
Strategic Systems Programs (SSP), Arlington, Virginia
Naval Information Systems Management Center (NISMC), Arlington, Virginia
Space and Naval War Systems Command (SPAWAR), Arlington, VA
Naval Supply Systems Command (NAVSUP), Arlington, Virginia
Headquarters, U.S. Marine Corps (HQMC), Arlington, Virginia
Headquarters Battalion, Henderson Hall (HQBN), Arlington, Virginia
Naval Space Command (SPACECOM), Dahlgren, Virginia
Naval Audit Service (NAVAUD), Falls Church, Virginia
Atlantic Fleet Headquarters Support Activity (HSA), Norfolk, Virginia
Office of the Secretary of the Navy (SECNAV), Washington, DC
Chief of Naval Operations (CNO), Washington, DC
Office of General Counsel (OGC), Washington, DC
Marine Barracks, 8th & I (8th & I), Washington, DC
Naval District Washington (NDW), Washington, DC

Bureau of Medicine and Surgery (BUMED), Washington, DC
Naval Computer and Telecommunications Command (NCTC), Washington, DC

In general the activities in this subcategory were independent activities and not tenants of other commands. Activities in leased space were considered as independent activities.

Data Call Development

Since the Administrative Activities subcategory is made up of a diverse collection of activities performing multiple missions with no common output measure, the capacity data call gathered information on both historic and projected workyears for an activity. Changes in location and personnel as a result of budget and BRAC issues generated questions on changes to space, personnel, and mission. Space available for expansion was included to determine potential for realignments or relocations. Since some activities are tenants and some are hosts, the standard module on quarters and messing was included to assess ability to support the active duty personnel assigned.

The military value data call reflects emphasis on mission, customers supported, and work breakdown. Facilities occupied were assessed based on condition, ownership, and contribution to mission execution. Location of the activity, location impact on mission execution and personnel recruiting were included to assess impact of locale on an activity. Information on support equipment, such as computers, was collected to obtain information on work enhancing systems. The standard quality of life module was also included.

Capacity Analysis

Maximum capacity of an activity was calculated as the high water mark in reported workyears over the past five years. This measure was used as it was likely to capture the maximum work output of an activity within the budget cycle, and also would represent an indirect measure of the maximum capacity of the facility that houses the activity. Budgeted workyears were used as the measure of FY 2001 requirements, since it was the only measurement common to all of the activities in this subcategory. The difference between the maximum workyear capacity of all activities and the FY 2001 budgeted workyears for all activities revealed 20 percent excess capacity.

To validate the results of this analysis, the space currently occupied by the activities was compared both to workyears and to space requirements utilizing standard factors. Activities moving to newly constructed space as a result of BRAC-93 were excluded from this portion of the analysis, since those projects would be appropriately sized for the relocated mission. The analysis using square footage occupied also shows an excess of 26.7 percent. Accordingly, the BSEC directed a military value analysis be conducted.

Military Value Analysis

The military value matrix addressed the areas of mission, facilities, computing assets, quality of life, and environment. The mission questions emphasize customers supported, assets committed to overhead functions and use of contractors. Facility questions emphasize government-owned space, adequacy, and facilities that enhance mission accomplishment. Location focuses on factors which enhance the mission and hiring of qualified personnel. The quality of life questions were derived from the Technical Centers' military value matrix, since the technical centers are also a range of host and tenant activities.

Final military value scoring places heavy emphasis on mission, facilities, and quality of life sections with the highest weighted question dealing with support of multiple customers. In scoring the matrix, the BSEC recognized that the most important element for these activities is cost and manpower implications and weighted this criteria the highest, with readiness, facilities, and mobilization receiving less weight. The range of scores for these activities was from 73.5 to 49.88, out of a possible score of 90.24. Activities scoring on the high end of the range included NAVCONBRIG, NAVSEA, NDW, NSA, and 8th & I, generally because these activities support multiple customers, have low overhead, and are located in government-owned facilities requiring few improvements. Activities which received low scores included BUPERS, BUMED, and CNO. BUPERS was low because location was not important to their mission or hiring of personnel, while BUMED and CNO scored low mainly due to facility contributions to mission accomplishment. Size of the activity was not a factor in score results.

Configuration Analysis

The configuration analysis of the Administrative Activities addressed the issues of reducing excess capacity and achieving a solution that minimizes anomalies due to the lack of common work product. The approach used was to reduce square footage and collocate activities, rather than reducing workyears, although workyears was the initial capacity measure. This approach closes infrastructure and, by collocation, reduces workyears due to economies of scale. Using projected workyears for each activity from the certified capacity data call responses and using a standard facility space factor, space requirements of each activity were calculated to identify the minimum requirements needed. To minimize excess capacity, the model used available space at all locations to achieve the optimum placement of all activities without activity fragmentation, while maintaining average military value.

Due to the diverse nature of these activities, certain rules were applied to the model to prevent anomalous results, such as a headquarters function being moved to a brig activity. The rules were that activities that must be located in the seat of government cannot be moved outside Washington, DC (CNO, SECNAV, HQMC, OGC); activities in the Pentagon will remain in the Pentagon; activities in specially configured space

supporting a one-of-a-kind activity or multiple activities in the same location cannot be moved (8th & I, NAVCONBRIG, ONI, NOTU, NAU, NDW, NSA); activities on bases that remain open should not be moved; and activities in leased space should be moved.

The primary solution of the configuration model closed 12 activities (NAVSEA, HRO CC, SSP, NAVAUDSVC, IPO, OCPM, NCCA, BUMED, NCTC, 1st MCD, NISMC, OGC). The second solution closed seven activities (SSP, NAVAUDSVC, IPO, OCPM, NCCA, NCTC remained open, and HQBN closed), while the third solution closed six activities (identical to the second solution but HQBN stayed open). The solutions eliminated in excess of 2 million square feet, with a total retained excess of about 1.1 million square feet. Over 500,000 square feet of the retained excess is in specially configured spaces (NAVCONBRIG, NOTU). Sensitivity analyses were run for a 10 percent increase, a 10 percent decrease, and a 20 percent decrease in space requirements. There was no feasible solution with a 10 percent increase in space requirements, due to some activities not reporting any excess space. All runs with decreased space requirements were identical to that of the primary run.

Scenario Development and Analyses

The BSEC evaluated the configuration analysis results and concluded that activities which consistently appeared in all solutions suggested opportunities for significant space economies and elimination of excess capacity. Accordingly, the BSEC directed COBRA scenario data calls be issued to relocate OGC, NISMC, and NAVSEA and its HRO CC to NDW (Navy Yard), to relocate BUMED to DON space at Nebraska Avenue, and to close 1st MCD. Because of concern that movements of NAVSEA and BUMED into Navy-owned space in Washington, DC might require more capacity than was available, the BSEC also requested costing data for the consolidation of SPAWAR with NCCOSC San Diego, with a view toward achieving efficiency of command structure and absorbing excess technical capacity. In addition, the BSEC directed issuance of COBRA scenario data calls to relocate NRD San Diego from North Island to other government-owned space in order to free up space on North Island for additional assets; to relocate CRUITCOM from Great Lakes to Memphis to produce efficiencies by collocation with BUPERS; and to relocate NSGC Det Potomac from Ft Meade to Space and Missile Systems Center at Los Angeles AFB in support of a Joint Cross-Service Group (JCSG) initiative to remove satellite work from NRL. While these scenarios impacted BRAC-93 recommendations, consistent with guidance relating to changes in receiving sites, they arose because of consideration of other proposed BRAC-95 moves. Finally, the BSEC considered the JCSG alternative for collocation of SPAWAR at Ft. Monmouth or Hanscomb AFB and issued appropriate scenario data calls.

After evaluating the costs and savings relating to relocation of NAVSEA to the Navy Yard with SPAWAR, to the Navy Yard without SPAWAR, and to the Navy Annex, the BSEC determined that relocation of NAVSEA to the Navy Yard without SPAWAR was most cost-effective since it required only renovation of existing space. Similarly,

relocation of NISMC to the Navy Yard involved no MILCON because it collocated this activity with the rest of its personnel already located at the Navy Yard. While relocating that portion of OGC in leased space to the Navy Yard produced an immediate return on investment, further research revealed this relocation was covered by language in BRAC-93 recommendations. These recommendations minimize excess administrative capacity by fully utilizing the Navy Yard, facilitating closure of White Oak, and vacating Federal Office Building 2, which is planned for use for the Pentagon renovation.

The relocation and consolidation of SPAWAR with NCCOSC, San Diego, as an alternative to the JCSG-suggested scenarios for collocation with the Army or Air Force at either Fort Monmouth or Hanscomb AFB, produced an immediate return on investment with no military construction required. With the recommendation to consolidate NISE West San Diego with NCCOSC, this move consolidates several echelons of command and produces high annual savings, due largely to personnel eliminations. The JCSG alternatives did not show similar savings since there were MILCON costs and no personnel savings.

The relocation of BUMED and of NSGC Det Potomac to Los Angeles and the closure of 1st MCD similarly proved not to be cost-effective because of personnel and MILCON costs, and so were rejected as viable alternatives. However, NSGC Det Potomac submitted an alternative to relocate to NRL, since its mission requires direct access to satellites, which cannot be done at Ft. Meade. This alternative proved to be feasible. The relocation of CRUITCOM produced an immediate payback due to MILCON cost avoidance, as did the relocation of NRD San Diego, which also located that activity more centrally for mission execution.

Conclusion

Determination of how best to eliminate excess capacity for Administrative Activities was a complex task, because of the dissimilarity of these activities and the varying requirements for specific locations. The closure of NSWC White Oak complicated the review, adding the requirement to redirect the NAVSEA headquarters. Ultimately, fully utilizing Navy-owned space, both inside and outside of Washington, DC, and minimizing leased space proved to be the solution that not only saved costs relating to facilities, but also fostered beneficial consolidations and efficiencies. As a case in point, the collocation of SPAWAR headquarters with their principal full spectrum RDT&E center in San Diego offers significant overhead savings, as well as a move from leased space to Navy-owned space outside the Washington DC metropolitan area, and substantial opportunities for management efficiencies and synergies in functions.

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ATTACHMENT Y-1

RECOMMENDATION FOR REALIGNMENT

NAVAL INFORMATION SYSTEMS MANAGEMENT CENTER, ARLINGTON, VIRGINIA

Recommendation: Relocate the Naval Information Systems Management Center from leased space in Arlington, Virginia, to the Washington Navy Yard, Washington, D.C.

Justification: The resource levels of administrative activities are dependent upon the level of forces they support. The continuing decline in force levels shown in the FY 2001 Force Structure Plan coupled with the effects of the National Performance Review result in further reductions of personnel in administrative activities. This relocation reduces excess capacity and achieves savings by the movement from leased space to government-owned space, and furthers the Department's policy decision to merge this activity with the Information Technology Acquisition Center which is already housed in the Navy Yard.

Return on Investment: The total estimated one-time cost to implement this recommendation is $.1 million. The net of all costs and savings during the implementation period is a savings of $.3 million. Annual recurring savings after implementation are $.1 million with a return on investment expected in two years. The net present value of the costs and savings over 20 years is a savings of $1.7 million.

Impacts:

Economic Impact on Communities: This recommendation will not result in a change in employment in the Washington, DC-Maryland-Virginia-West Virginia PMSA economic area because all affected jobs will remain in that economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The relocation of this activity from leased space in the NCR to the Washington Navy Yard will not adversely impact the environment because it is an administrative activity and the relocation concerns only a small number of personnel and office support equipment. There is no adverse impact on threatened/endangered species, sensitive habitat and wetlands, or cultural/historical resources occasioned by this recommendation.

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ATTACHMENT Y-2

RECOMMENDATION FOR REALIGNMENT

NAVAL SEA SYSTEMS COMMAND, ARLINGTON, VIRGINIA REDIRECT

Recommendation: Change the receiving sites specified by the 1993 Commission (1993 Commission Report, at page 1-59) for the relocation of the Naval Sea Systems Command, including the Nuclear Propulsion Directorate (SEA 08), the Human Resources Office supporting the Naval Sea Systems Command, and associated PEOs and DRPMs, from "the Navy Annex, Arlington, Virginia; Washington Navy Yard, Washington, D.C.; 3801 Nebraska Avenue, Washington, D.C.; Marine Corps Combat Development Command, Quantico, Virginia; or the White Oak facility, Silver Spring, Maryland" to "the Washington Navy Yard, Washington, D.C. or other government-owned property in the metropolitan Washington, D.C. area."

Justification: The resource levels of administrative activities are dependent upon the level of forces they support. The continuing decline in force levels shown in the FY 2001 Force Structure Plan coupled with the effects of the National Performance Review result in further reductions of personnel in administrative activities. As a result, the capacity at the White Oak facility in Silver Spring, Maryland, or at the Navy Annex, Arlington, Virginia is no longer required to meet DON administrative space needs. This change in receiving sites eliminates substantial expenditures otherwise required to rehabilitate both White Oak and the Navy Annex. The net effect of this and the White Oak recommendation is a decrease of excess administrative space by more than 1,000,000 square feet.

Return on Investment: The total estimated one-time cost to implement this recommendation is $159.7 million. The net of all costs and savings during the implementation period is a savings of $47.6 million. Annual recurring savings after implementation are $9.4 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $144 million.

Impacts:

Economic Impact on Communities: This recommendation will not result in a change in employment in the Washington, DC-Maryland-Virginia-West Virginia PMSA economic area because all affected jobs will remain in that economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The relocation of NAVSEA from leased space in the NCR to the Washington Navy Yard generally will have a positive impact on the

environment, principally due to the avoidance of the construction of new facilities and the rehabilitation of existing facilities at NSWC White Oak, Maryland, which is closing in its entirety. The Washington Navy Yard has sufficient facilities which can be rehabilitated to house these activities, and the utility infrastructure capacity is sufficient to handle the additional personnel. There is no adverse impact on threatened/endangered species, sensitive habitat and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT Y-3

RECOMMENDATION FOR REALIGNMENT

SPACE AND NAVAL WARFARE SYSTEMS COMMAND, ARLINGTON, VIRGINIA REDIRECT

Recommendation: Change the recommendation for the Space and Naval Warfare Systems Command, Arlington, Virginia, specified by the 1993 Commission (Commission Report, at page 1-59) from "[r]elocate...from leased space to Government-owned space within the NCR, to include the Navy Annex, Arlington, Virginia; Washington Navy Yard, Washington, D.C.; 3801 Nebraska Avenue, Washington, D.C.; Marine Corps Combat Development Command, Quantico, Virginia; or the White Oak facility, Silver Spring, Maryland" to "Relocate...from leased space to Government-owned space in San Diego, California, to allow consolidation of the Naval Command, Control and Ocean Surveillance Center, with the Space and Naval Warfare Command headquarters. This relocation does not include SPAWAR Code 40, which is located at NRL, or the Program Executive Officer for Space Communication Sensors and his immediate staff who will remain in Navy-owned space in the National Capital Region."

Justification: The resource levels of administrative activities are dependent upon the level of forces they support. The continuing decline in force levels shown in the FY 2001 Force Structure Plan coupled with the effects of the National Performance Review result in further reductions in administrative activities. Space available in San Diego resulting from personnel changes and work consolidation permits further consolidation of the SPAWAR command structure and the elimination of levels of command structure. This consolidation will achieve not only significant savings from elimination of unnecessary command structure but also efficiencies and economies of operation. In addition, by relocating to San Diego instead of the NCR, there will be sufficient readily available space in the Washington Navy Yard for the Naval Sea Systems Command.

Return on Investment: The total estimated one-time cost to implement this recommendation is $24 million. The net of all costs and savings during the implementation period is a savings of $120 million. Annual recurring savings after implementation are $25.3 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of $360 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 1821 jobs (1133 direct jobs and 681 indirect jobs) over the 1996-to-2001 period in the Washington, DC-Maryland-Virginia-West Virginia PMSA economic area, which is 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations

and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 0.6 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The relocation of this activity from leased space in the NCR to San Diego, California, likely will not have an adverse impact on the environment. Because San Diego is in a moderate non-attainment area for CO, a conformity determination may be required to evaluate air quality impacts. There is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

ATTACHMENT Y-4

RECOMMENDATION FOR REALIGNMENT

NAVAL RECRUITING COMMAND, WASHINGTON, D.C. REDIRECT

Recommendation: Change the receiving site for the Naval Recruiting Command, Washington, D.C., specified by the 1993 Commission (1993 Commission Report, at page 1-59) from "Naval Training Center, Great Lakes, Illinois" to "Naval Support Activity, Memphis, Tennessee."

Justification: This relocation permits the single-siting of the Department's personnel recruiting and personnel management headquarters-level activities, enhancing their close coordination, and supporting the Department's policy of maximizing the use of government-owned space. It also reduces the requirement to effect new construction, and reduces resulting potential building congestion, at NTC Great Lakes.

Return on Investment: The total estimated one-time cost to implement this recommendation is $6.5 million. The net of all costs and savings during the implementation period is a savings of $1.1 million. There are no annual recurring savings after implementation, and an immediate return on investment is expected. The net present value of the costs and savings over 20 years is a savings of $1.2 million.

Impacts:

Economic Impact on Communities: Since this action affects unexecuted relocations resulting from prior BRAC recommendations, it causes no net change in employment in the Lake County, Illinois economic area. However, the anticipated 0.2 percent increase in the employment base in this economic area will not occur.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The movement of this activity to Naval Support Activity, Memphis generally will have a positive impact on the environment because new facilities will not have to be constructed at NTC Great Lakes, Illinois. The additional personnel are not expected to have an adverse impact on the environment in that the utility infrastructure capacity at the receiving site is sufficient to handle this additional loading. There is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

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ATTACHMENT Y-5

RECOMMENDATION FOR REALIGNMENT

NAVAL SECURITY GROUP COMMAND DETACHMENT POTOMAC, WASHINGTON, D.C. REDIRECT

Recommendation: Change the receiving site for the Naval Security Group Command Detachment Potomac, Washington, D.C., from "National Security Agency, Ft. Meade, Maryland" specified by the 1993 Commission (1993 Commission Report, at page 1-59) to "Naval Research Laboratory, Washington, D.C."

Justification: The mission of this activity requires that it be collocated with space surveillance hardware. This can most effectively be accomplished by housing this activity at the Naval Research Laboratory. By this redirect, the cost of moving this activity to Fort Meade can be avoided.

Return on Investment: There are no estimated one-time costs to implement this recommendation. The net of all costs and savings during the implementation period is a savings of $4 thousand. There are no annual recurring savings after implementation, and an immediate return on investment is expected. The net present value of the costs and savings over 20 years is a savings of $4 thousand.

Impacts:

Economic Impact on Communities: Since this action affects unexecuted relocations resulting from prior BRAC recommendations, it causes no net change in current employment in the Baltimore, Maryland PMSA economic area. However, the anticipated small increase in the employment base in this economic area will not occur.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The relocation of this activity from Ft. Meade, Maryland, to the Naval Research Laboratory, Washington, D.C., generally will have a positive impact on the environment. Both the losing site and the gaining site are in the same air quality district; thus, movement of this activity within that district will no impact on air quality. There is no adverse impact on threatened/endangered species, sensitive habitat and wetlands, or cultural/historical resources occasioned by this recommendation.

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ATTACHMENT Y-6

RECOMMENDATION FOR REALIGNMENT

NAVAL RECRUITING DISTRICT, SAN DIEGO, CALIFORNIA REDIRECT

Recommendation: Change the receiving site for the Naval Recruiting District, San Diego, California, specified by the 1993 Commission (1993 Commission Report, at page 1-39) from "Naval Air Station North Island" to "other government-owned space in San Diego, California."

Justification: The North Island site is somewhat isolated and not necessarily conducive to the discharge of a recruiting mission. Moving this activity to government-owned space in a more central and accessible location enhances its operations. Additionally, with the additional assets being placed in NAS North Island in this round of closures and realignments, there is a need for the space previously allocated to this activity.

Return on Investment: The total estimated one-time cost to implement this recommendation is $.3 million. The net of all costs and savings during the implementation period is a savings of $.1 million. There are no annual recurring savings after implementation, and a return on investment is expected in one year. The net present value of the costs and savings over 20 years is a savings of $89 thousand.

Impacts:

Economic Impact on Communities: This recommendation will not result in a change in employment in the San Diego, California MSA economic area because all affected jobs will remain in that economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: The relocation of this activity within its local area generally will have a positive impact on the environment because new facilities will not have to be constructed at NAS North Island. Also, there is no adverse impact on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources occasioned by this recommendation.

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ATTACHMENT Z

DESCRIPTION OF ANALYSIS OF ENGINEERING FIELD DIVISIONS/ACTIVITIES

Engineering Field Divisions (EFDs) and Engineering Field Activities (EFAs) are field activities of the Naval Facility Engineering Command (NAVFAC). Their mission is to provide support services for DoD customers including planning, design, construction, and technical assistance on facilities maintenance and operation. As the Navy's agent for the acquisition and disposal of real estate, the program manager for the Navy's Defense Environmental Restoration Account, and the caretaker for bases after operational closure, EFD/EFA proximity to customer base, size, and location are important. This subcategory includes four EFDs and five EFAs, as follows:

Engineering Field Activity West (WDIV), San Bruno, California
Southwestern Division (SWDIV), San Diego, California
Pacific Division (PACDIV), Pearl Harbor, Hawaii
Engineering Field Activity Midwest (EFA MW), Great Lakes, Illinois
Engineering Field Activity North (NDIV), Philadelphia, Pennsylvania
Southern Division (SDIV), Charleston, South Carolina
Atlantic Division (LANTDIV), Norfolk, Virginia
Engineering Field Activity Chesapeake (EFA CHES), Washington, DC
Engineering Field Activity Northwest (EFA NW), Bangor, Washington

EFDs contain the core EFD functions including certain comptroller functions, Public Works Management, and Family Housing Management. EFAs are subordinate to EFDs, whereas EFDs report directly to the NAVFAC Headquarters.

Data Call Development

EFDs and EFAs were treated equally for the purposes of data call development and analysis, although the functions and services of EFA MW, located at Naval Training Center, Great Lakes, were included under SDIV. The capacity data call was developed after a review and validation of the BRAC-93 measure of capacity for administrative and other operational support activities. The capacity data call sought to include units of measurement for the resources, products, and services provided by EFD/EFAs. Technical experts from NAVFAC assisted in providing the specific measures used in the capacity data call. Workload capability and capacity were measured in design/construction work in place, contract volume, numbers of contracts, size of customer base, and size of BRAC support. The military value data call focused on areas consistent with input from NAVFAC, which included proximity to customers, volume of work provided to specific customers, range of services provided, expected changes to mission/customer base, size of customer base, volume of work executed, and impacts from previous BRAC decisions.

Constraints to expansion, importance of location, special support mission, unique contracting capability, mobilization responsibilities, and quality of life questions were included in the military value data call, as were questions which captured leased space use and costs, specific/unique support services provided, and support to reserves.

Capacity Analysis

Using a throughput of workyears, maximum total capacity was determined by adding the maximum capacity for each EFD/EFA for the period FY 1991-FY 1994, inclusive. Projected workyear estimates, based on budgets for FY 2001, were used as the requirement. The capacity analysis compared the maximum workyears supported in prior years to the projected workyear requirement in FY 2001, resulting in an excess of up to 19 percent. The BSEC concluded that the excess capacity warranted proceeding with military value analysis.

Military Value Analysis

The matrix developed for the military value analysis was modeled after the Administrative Activity matrix, while the quality of life section was drawn from the SUPSHIPs matrix. The BSEC directed that the questions, bands, criteria assignments and scores from the SUPSHIP quality of life section be used in the EFD matrix since the personnel composition of EFDs is heavily civilian, with a service orientation similar to that of SUPSHIPs. Military value matrix areas of emphasis included proximity to customers, size of customer base, impact from previous BRAC decisions, range of services provided, special missions, and quality of life. The BSEC placed primary importance on Readiness and Cost because the most significant aspect of an EFD is its ability to manage customers' workload effectively and cost efficiently. EFDs that do so contribute to the readiness of their customer base.

Customer support services questions addressed the size of the customer base served, the volume of the contract throughput executed, and the past or future changes to mission support requirements. Unique support functions such as technical/legal support and housing management were also included. The impact of BRAC was captured as it relates to the number of customers eliminated as a result of previous BRAC rounds. Location questions identified the location of the largest customers, proximity to another EFD/EFA, special missions, and reserve presence at the EFD/EFA. The proximity to customers questions in the military value matrix focused on a distance of 100 miles from the EFD/EFA used since this distance reflects a customer visit in which an overnight stay would not be required. Special mission questions extracted the specialized, unique, or service particular functions and skills of the EFD/EFA as well as the personnel employed. New missions in the future due to non-DoD, civilian, or other Navy support functions were identified and recognized as giving the EFD/EFA additional military value. Workload capability questions identified the historic and/or projected growth of workyears, construction, BRAC support, and environmental costs. The technical and

administrative support of EFDs/EFAs can be directly measured in the volume of contracts and workload in each of these areas as well as workyears. Caretaker support office workyears were identified, and a distinction was made according to the amount of workforce devoted to this function. Facilities and cost issues evaluated leased or government owned occupancy, limiting factors to expansion, and area cost factors. Military value was greater for EFDs/EFAs located in government-owned space and/or in a lower cost area.

Weights developed by the BSEC placed high value on location and future workload as well as a customer base that was not diminished by previous BRAC rounds. Large EFDs/EFAs with growing workloads and specialized or unique support capabilities were highly valued. Quality of life considerations received lower importance than other areas reviewed by the BSEC because of the large civilian population served. Military value scores ranged from 30.40 to 70.12, out of 94.88 possible points. The two largest EFDs, LANTDIV and SWDIV received the highest military value scores, due to their larger customer base, their trend of growth, their longer list of services provided, and higher volume of products and services provided. NDIV and WDIV, both EFAs, had the lowest military value scores, primarily because of the loss of their area customer base, their trend toward downsizing, and the shorter list of functions and services provided.

Configuration Analysis

Configuration analysis was conducted using a linear programming model that sought to minimize the excess capacity in EFDs/EFAs while maintaining an average military value at least as great as the current average for all EFDs/EFAs. The model's parameters for EFDs/EFAs were the maximum capacity in workyears and the projected requirement for workyears in FY 2001. The configuration analysis identified the best, second best, and third best solution sets using FY 2001 requirements. Sensitivity analyses were conducted reflecting a 10 percent increase to the FY 2001 requirements and a 10 and 20 percent decrease in requirements.

The best solution closed EFA West. This solution reduced total capacity by 18.4 percent while retaining 0.9 percent excess capacity compared to the baseline requirements. The retained average military value was 47.22 compared to the overall average military value of 45.59. The second-best solution closed SDIV and EFA NW and resulted in a capacity reduction of 17.8 percent, excess capacity of 1.5 percent, and a retained average military value of 46.3. The third-best solution closed NDIV and EFA NW. This solution reduced total capacity by 15.3 percent. Excess capacity was 4.0 percent and the retained average military value 48.83.

The sensitivity analysis increased the FY 2001 requirements by ten percent yielded a single solution, which closed EFA NW. This solution had 16.3 percent excess capacity and a retained average military value of 46.2. Total capacity was reduced by 3.0 percent. Decreasing the future functional requirements by ten percent and running a primary,

secondary and tertiary solution yielded results as follows: (1) Close EFA CHES and WDIV, with a -11 percent excess capacity, average military value of 47.46; (2) Close NDIV, EFA NW, and PACDIV, for a -10.9 percent excess capacity, average military value of 50.36; and (3) Close SDIV and NDIV, which resulted in a -10.4 percent excess capacity, average military value of 48.11. Decreasing the future functional requirements by 20 percent and running a primary, secondary, and tertiary solution resulted as follows: (1) Close NDIV, EFA CHES, and SWDIV which yielded a -24.1 percent excess capacity and an average military value of 46.47; (2) Closed SDIV, EFA CHES, and PACDIV, yielding a -23.3 percent excess capacity and an average military value of 51.77; and (2) Closed NDIV, WDIV, and EFA NW, which left -23.3 percent excess capacity and an average military value of 46.41.

Scenario Development and Analysis

The BSEC considered the results of the configuration analysis and concluded that, since EFD/EFAs generally occupy leased space, being at negative excess capacity was a viable position as leased space is readily available and it would not affect readiness. Closure of an EFD/EFA would result in the consolidation of functions at another EFD/EFA through the transfer of remaining workload to another EFD/EFA. The BSEC decided to release two COBRA scenario development data calls (1) Close WDIV and (2) Close WDIV, SDIV, and EFA NW. These scenarios are the primary model solution and a combination of the primary and secondary model solutions, which would result in the greatest reduction of excess capacity, .9 percent and -16.9 percent excess capacity remaining, respectively. During review of the COBRA analysis of the first two EFD scenarios, the BSEC further refined the alternatives to identify costs and savings separately for each EFD/EFA in the second scenario and issued an additional scenario to close SDIV and establish an EFA at Naval Air Station, Jacksonville, Florida. This scenario would establish a facility in the south near a fleet concentration center where excess space exists, rather than serving the Jacksonville/Mayport customers out of the LANTDIV-Norfolk complex.

After full evaluation, the BSEC eliminated all three EFDs from consideration for closure. SDIV was eliminated since the upfront costs, when compared to the 20 year net present value, did not yield favorable payback. EFA NW was eliminated because it required a 24 year payback and did not yield significant savings. While the closure of WDIV would result in a favorable return on investment, that alternative was eliminated by the SECNAV based on his concern over eliminating additional civilian jobs in this area.

Conclusion

Engineering Field Divisions and Activities are directly tied to DON presence in a region. As such, only two areas offer realistic candidates for closure: Southern Division in Charleston and Western Division in Oakland. The Southern Division still has

a formidable workload in the surviving Navy and Marine Corps bases in the South Atlantic and Gulf Coast states. Western Division has less workload, but has successfully downsized outside the BRAC process. Therefore, no activity is recommended for closure.

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ATTACHMENT AA

DESCRIPTION OF ANALYSIS OF SUPERVISORS OF SHIPBUILDING, CONVERSION AND REPAIR

The mission of Supervisors of Shipbuilding, Conversion and Repair (SUPSHIPs) is the administration of DON shipbuilding, conversion, modernization and maintenance contracts with the private sector. They also monitor performance of that workload and act as the DON design, planning and inspection agents for these functions. This subcategory is composed of thirteen offices, as follows:

SUPSHIP San Francisco, California
SUPSHIP Long Beach, California
SUPSHIP San Diego, California
SUPSHIP Groton, Connecticut
SUPSHIP Jacksonville, Florida
SUPSHIP New Orleans, Louisiana
SUPSHIP Bath, Maine
SUPSHIP Pascagoula, Mississippi
SUPSHIP Charleston, South Carolina
SUPSHIP Newport News, Virginia
SUPSHIP Portsmouth, Virginia
SUPSHIP Seattle, Washington
SUPSHIP Sturgeon Bay, Wisconsin

These activities perform contract management functions, and have no associated in-house manufacturing or other physical processes, facilities or equipments. BRAC-93 consolidated the Planning, Estimating, and Repair Activities (PERAs) into selected SUPSHIPs offices, and therefore PERAs were not considered separately in the BRAC-95 process.

Data Call Development

The capacity and military value data calls were developed using the BRAC-93 data calls as starting points. Sets of questions were then expanded or compressed based on lessons learned for BRAC-93 and consultations with technical experts. The capacity data call was designed to capture throughput, measured in workyears performed in the major mission areas of new construction and modernization and repair. The data calls requested information on specific features and capabilities of the activities, including manpower factors, physical space available for industrial support, facility and equipment characteristics, and contingency and mobilization features. Headquarters sections were developed to ensure a complete and comprehensive portrayal of SUPSHIPs. In addition to providing the aggregated data for the various workload measurements reported by the activities, the headquarters section specified the travel requirements and appropriations associated with that workload execution.

Capacity Analysis

Capacity analysis was conducted by comparing the maximum potential capacity of the SUPSHIPs to the workload programmed to support the FY 2001 force structure. The maximum potential capacity was determined based on the maximum historic performance levels for the period FY 1986-1993. The average of those levels for each SUPSHIP was summed to determine a maximum potential for the subcategory. This maximum capacity was compared to required capacity, determined from the reported programmed workload through FY 2001. The future requirement reported for SUPSHIP functions paralleled the anticipated decreases in force structure and defense spending on both reduced new construction and expanded modernization and repair cycles. Maximum capacity for the SUPSHIPs was determined to exceed future requirements by approximately 38 percent. The BSEC concluded that sufficient excess capacity existed to warrant analysis of military value.

Military Value Analysis

The military value matrix was developed after review of the BRAC-93 matrix, with modifications based on lessons learned, technical expert perspectives, and matrices already approved by the BSEC. The military value questions were grouped into eight subject areas, covering maintenance, construction, travel, quality of life, location, agreements, environment, and weather. Primary emphasis was placed on individual SUPSHIP capability and executed production workload. While only ship classes which are anticipated to be in the inventory in FY 2001 were included in the matrix, credit was given for workload representing the Military Sealift Command mission and survey ships, Maritime Prepositioning Force, and other DON or DoD vessels. Standardized modules assessing facilities, costs and investments, environmental and quality of life concerns were adjusted to reflect the predominantly civilian workforce and distinctly industrial production mission at the activities.

The military value scores ranged from 12.3 (Sturgeon Bay) to 53.9 (Portsmouth) (out of a 92.2 possible points), with the scores spread fairly evenly through that range. The primary discriminator was the range of new construction, conversion, modernization and/or maintenance workload supervision provided and the elements of the fleet impacted.

Configuration Analysis

Configuration analysis was conducted using a linear programming model to develop solutions that minimized excess capacity in the SUPSHIPs while meeting FY 2001 requirements and maintained an average military value. In reviewing the modeling specifications, the BSEC recognized that this subcategory is unique in that their workload is not directly correlated to evolving force structure, but is closely tied to the volume of workload allocated to the private sector through the budget process. As the SUPSHIP offices roughly parallel the distribution of private sector facilities, one additional

parameter was added to the configuration model, accommodating a minimal geographic distribution to retain at least two offices on the Atlantic and Pacific coasts, and at least one office on the Gulf Coast. Standard sensitivity analyses were conducted, adjusting the requirement up 10 percent, down 10 percent and down 20 percent.

The initial results of the configuration analysis were confusing, representing successful reductions in capacity but lacking a cohesive logic. Between the three initial solutions and the three sets of sensitivity analyses, every SUPSHIP was shown as closed at least once, with the except of SUPSHIP Pascagoula.

Scenario Development and Analyses

The results of the configuration analysis provided the BSEC with a starting point for deliberations leading to scenario development. The BSEC decided to issue two scenarios, closing SUPSHIPs that appeared at least twice in the initial three configuration solutions, on the theory that because of military value or capacity, those activities were appropriate candidates for eliminating excess capacity. However, the BSEC noted that the COBRA data call responses should be reviewed closely to determine if another parameter could be refined to identify more rational configuration options. Accordingly, COBRA scenario data calls were issued which closed combinations of the SUPSHIPs at Bath, Jacksonville, New Orleans, Charleston, Long Beach, and Sturgeon Bay.

Review of the COBRA data call responses revealed that, while the first two scenarios reduce excess capacity markedly, the reallocation of workload incurs such large travel and per diem costs by the receiving sites as to make the scenarios totally impractical. Based on this analysis, the BSEC developed a third scenario reflecting the volume of future workload and therefore affecting the necessity for travel support. A COBRA scenario data call was issued closing the SUPSHIPs at Sturgeon Bay, Charleston, Long Beach, and San Francisco, all of which reported little or no workload programmed through FY 2001.

COBRA analysis was performed on this third scenario, with mixed results. The scenarios closing SUPSHIP Charleston and SUPSHIP Sturgeon Bay never paid off, because of a continuing workload requirement on-site, which necessitated travel from the sites to which the contract management function was relocated. While the closure of SUPSHIP San Francisco would result in a favorable return on investment, that alternative was eliminated by the SECNAV based on his concern over eliminating additional civilian jobs in this area. Finally, SUPSHIP Long Beach workload decreases to fifteen workyears by FY 2001 and can be efficiently absorbed by SUPSHIP San Diego. Additionally, with the closure of Naval Station, Long Beach, the future requirement for SUPSHIP work in that region is anticipated to be nominal.

Conclusion

The BRAC-95 evaluation of SUPSHIPs confirmed that execution of their workload is strictly tied to the locations of the private sector contractors to whom ship work has been awarded. Performance of the work requires on-site presence; there are very few functions ancillary to the primary SUPSHIP missions which offer consolidation synergies. Therefore, closure of a SUPSHIP in an area with more than nominal future workload will generate a requirement for considerable travel and on-site presence, to include the need for a permanent detachment. Though considerable excess appears to have been retained in the aggregate in this subcategory, closure of additional locations requires travel and remote support, and offers no savings to the Department.

ATTACHMENT AA-1

RECOMMENDATION FOR CLOSURE

SUPERVISOR OF SHIPBUILDING, CONVERSION AND REPAIR, USN, LONG BEACH, CALIFORNIA

Recommendation: Disestablish the Supervisor of Shipbuilding, Conversion and Repair, USN, Long Beach, California. Relocate certain functions, personnel and equipment to Supervisor of Shipbuilding, Conversion and Repair, USN, San Diego, California.

Justification: Because of reductions in the FY 2001 Force Structure Plan and resource levels, naval requirements for private sector shipbuilding, conversion, modernization and repair are expected to decrease significantly. The combined capacity of the current thirteen SUPSHIP activities meaningfully exceeds the DON requirement over that Force Structure Plan. Additionally, with the closure of the Long Beach Naval Shipyard, the future requirement for this work in this region is anticipated to be quite nominal. The predicted workload can be efficiently absorbed by SUPSHIP San Diego.

Return on Investment: The total estimated one-time cost to implement this action is $.3 million. The net of all costs and savings during the implementation period is a savings of $.8 million. Annual recurring savings after implementation are $.3 million with a return on investment expected in one year. The net present value of the costs and savings over 20 years is a savings of $3.3 million.

Impacts:

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 30 jobs (19 direct jobs and 11 indirect jobs) over the 1996-to-2001 period in the Los Angeles-Long Beach, California PMSA economic area, which is less than 0.1 percent of economic area employment. The cumulative economic impact of all BRAC-95 recommendations and all prior-round BRAC actions in the economic area over the 1994-to-2001 period could result in a maximum potential decrease equal to 0.4 percent of employment in the economic area.

Community Infrastructure Impact: There is no known community infrastructure impact at any receiving installation.

Environmental Impact: SUPSHIP Long Beach is a tenant activity and as such does not control or manage real property. Its complete closure will have no appreciable environmental impacts, including impacts on threatened/endangered species, sensitive habitats and wetlands, or cultural/historical resources. Despite the classification of San Diego, California, as a non-attainment area for ozone, the transfer of a small number of

personnel from SUPSHIP Long Beach to San Diego will not adversely impact the air quality of that area.