

*Commissioner's
Base Briefing Book*



Submarine Base New London, CT

Community Material

May 31, 2005

Naval Submarine Base New London BRAC Commission Visit

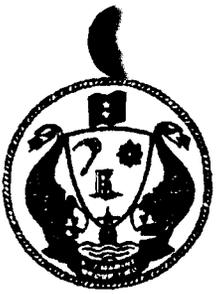


31 May 2005

BRAC Commissioner's visit SUBASE NLON

- Navy Region Northeast
- Naval Base New London
- Submarine Group Two
- Submarine Learning Center

31 May 05



Command Relationships



- **Commander Naval Installations** (RADM Weaver)
 - Commander Navy Region Northeast (RDML Mark Kenny)
 - Deputy Commander Navy Region Northeast (RMDL Robin Watters)
 - Commanding Officer Submarine Base New London
(CAPT Sean Sullivan)
- **Commander Naval Submarine Forces** (VADM Chuck Munns)
 - Commander Submarine Force, U.S. Atlantic Fleet (VADM Munns)
 - Commander Submarine Group Two/Ten (RDML Mark Kenny)
 - Commander Submarine Squadrons TWO, FOUR, SIX, EIGHT, SIXTEEN, TWENTY & Commander Submarine Development Squadron TWELVE

Summary

- Recommendations
 - Relocate submarines and maintenance support to Norfolk and Kings Bay
 - Relocate Submarine School to Kings Bay
 - Closure of SUBASE NLON
 - Relocate other tenant organizations
- Identified Payback
 - One-time costs - \$679.6M
 - NPV savings over 20 years - \$1,576M

NAVY REGION NORTHEAST



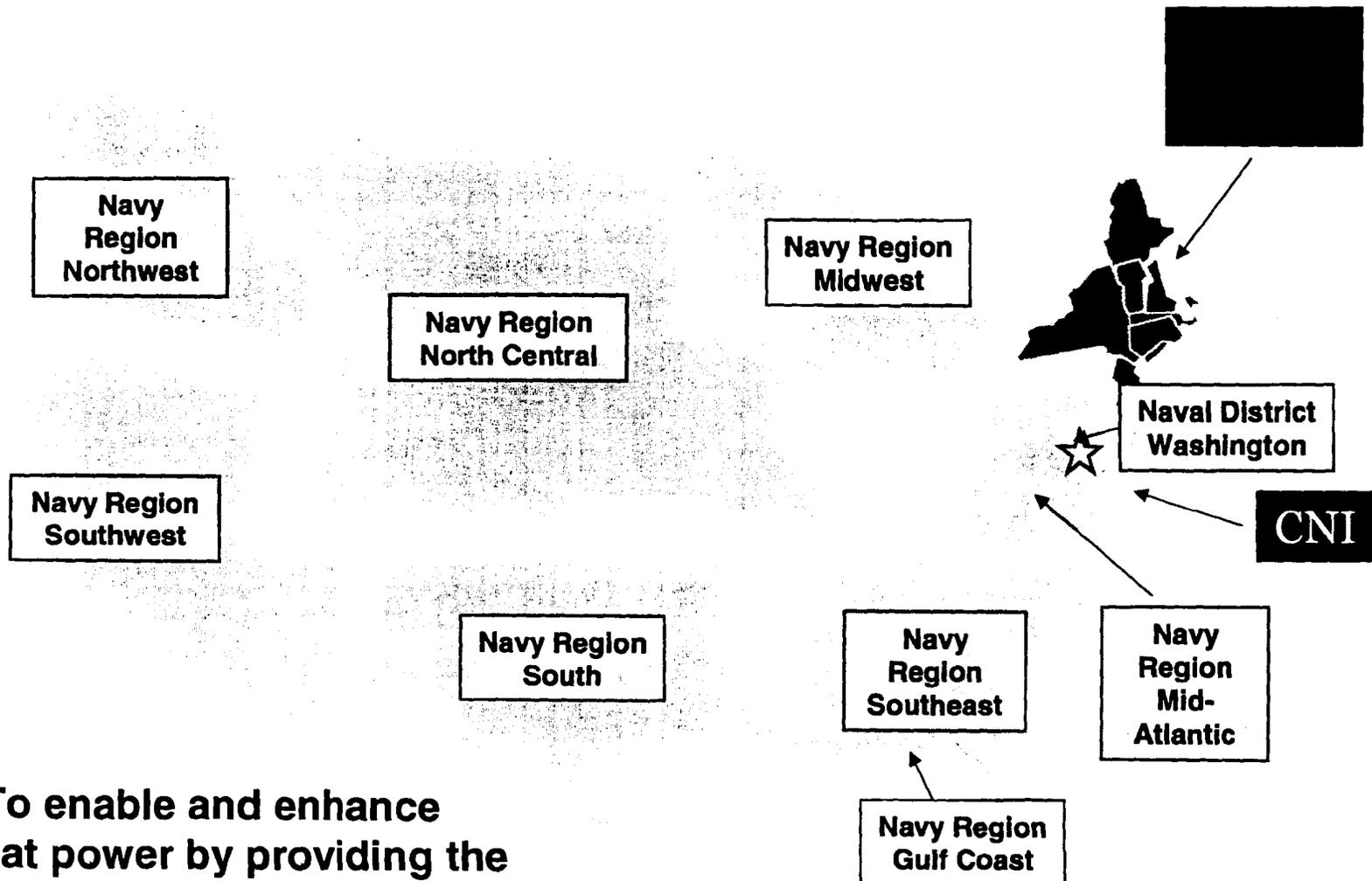
Presentation To: BRAC Commissioners

Presented By:
RDML Robin M. Watters
Deputy Commander
31 May 05



COMMANDER NAVY INSTALLATIONS

Current CONUS Region Laydown



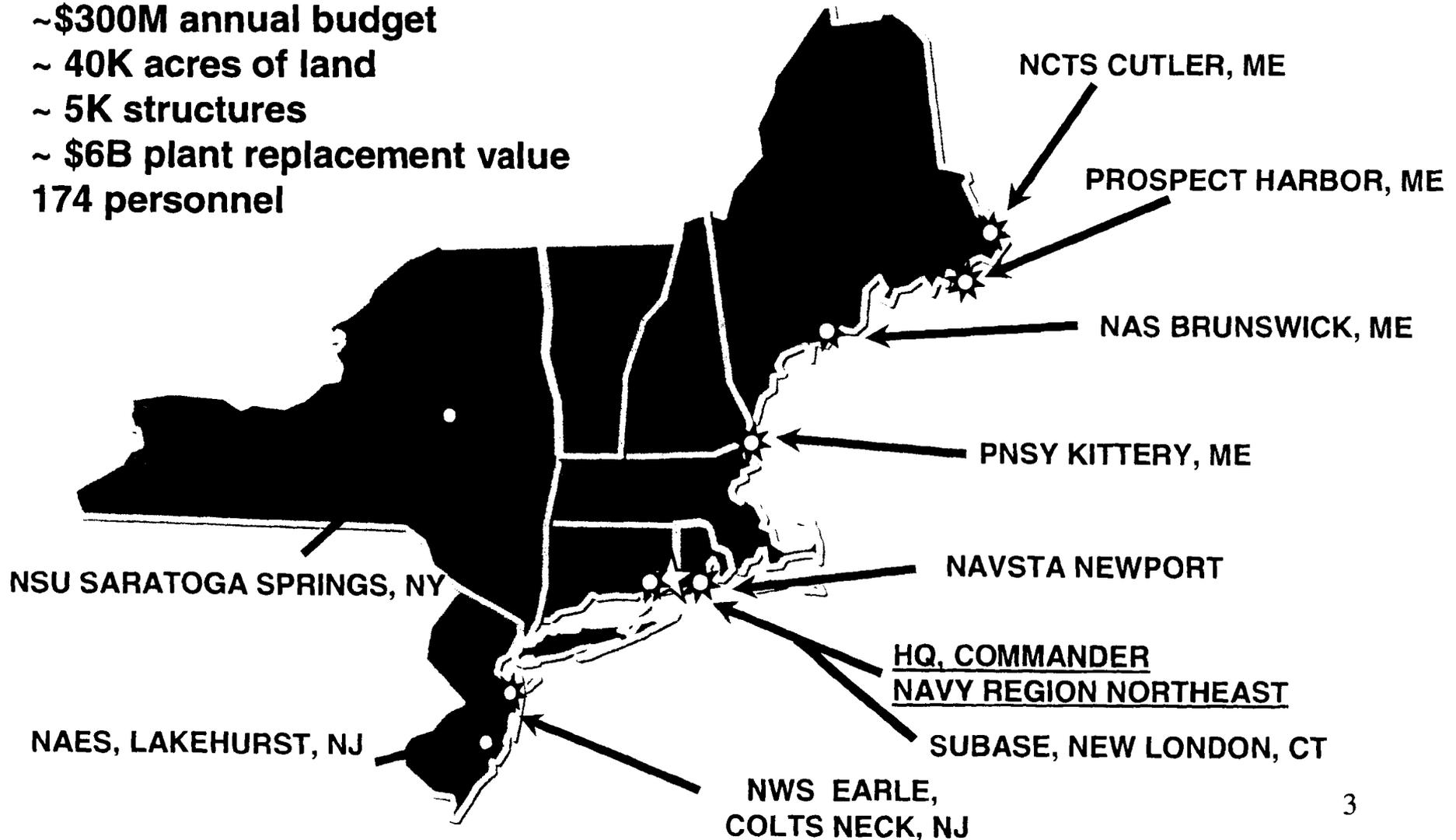
MISSION: To enable and enhance Navy combat power by providing the most effective and efficient and cost-wise shore services and support.



CNRNE INSTALLATIONS

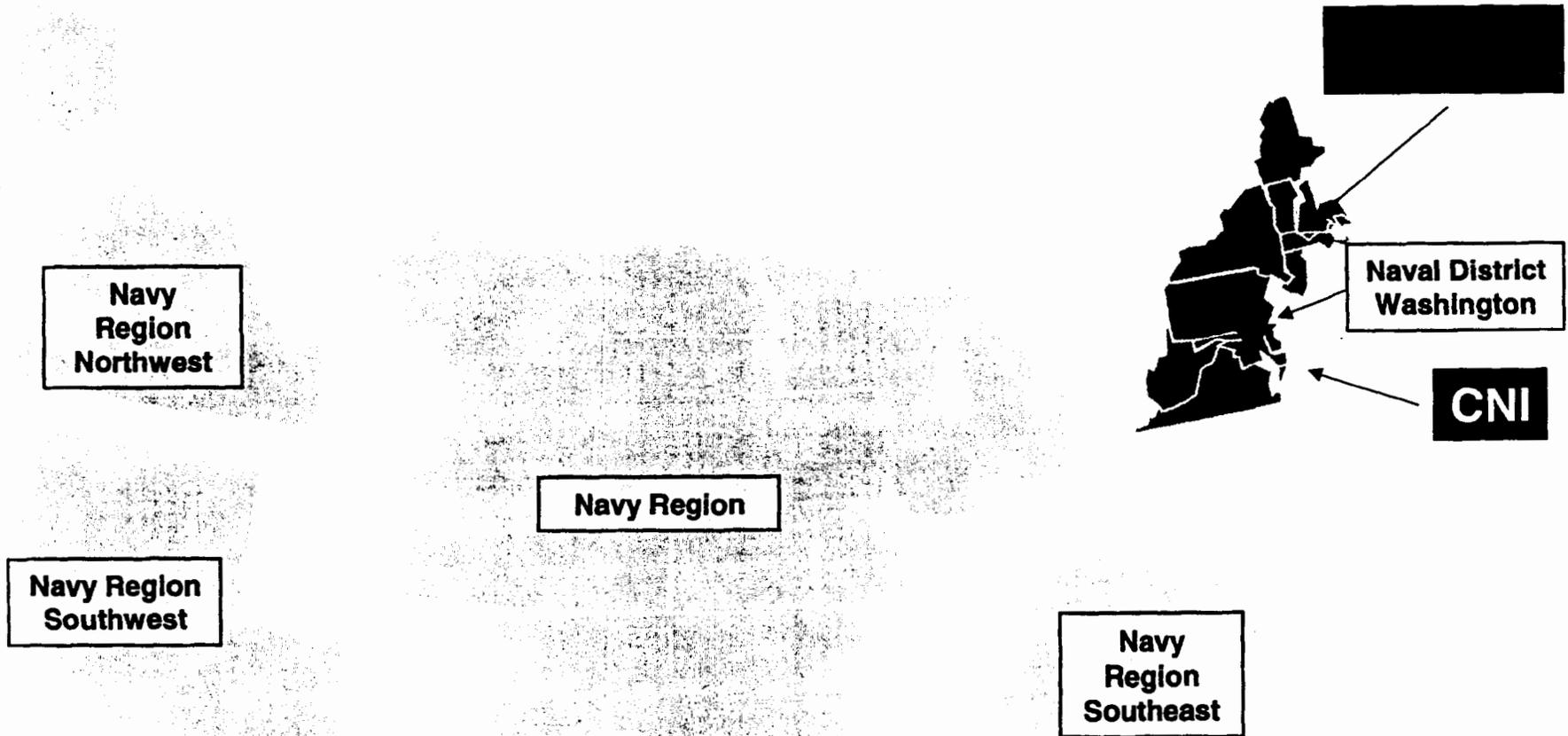
Commander, Navy Region NE

- ~\$300M annual budget
- ~ 40K acres of land
- ~ 5K structures
- ~ \$6B plant replacement value
- 174 personnel





COMMANDER NAVY INSTALLATIONS DOD BRAC Recommended Region Laydown





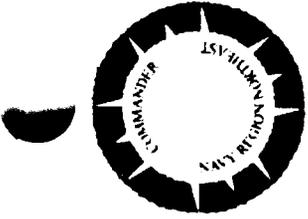
NAVY REGION NORTHEAST OVERVIEW

BRAC DOD RECOMMENDED ACTIONS

Cumulative Impact

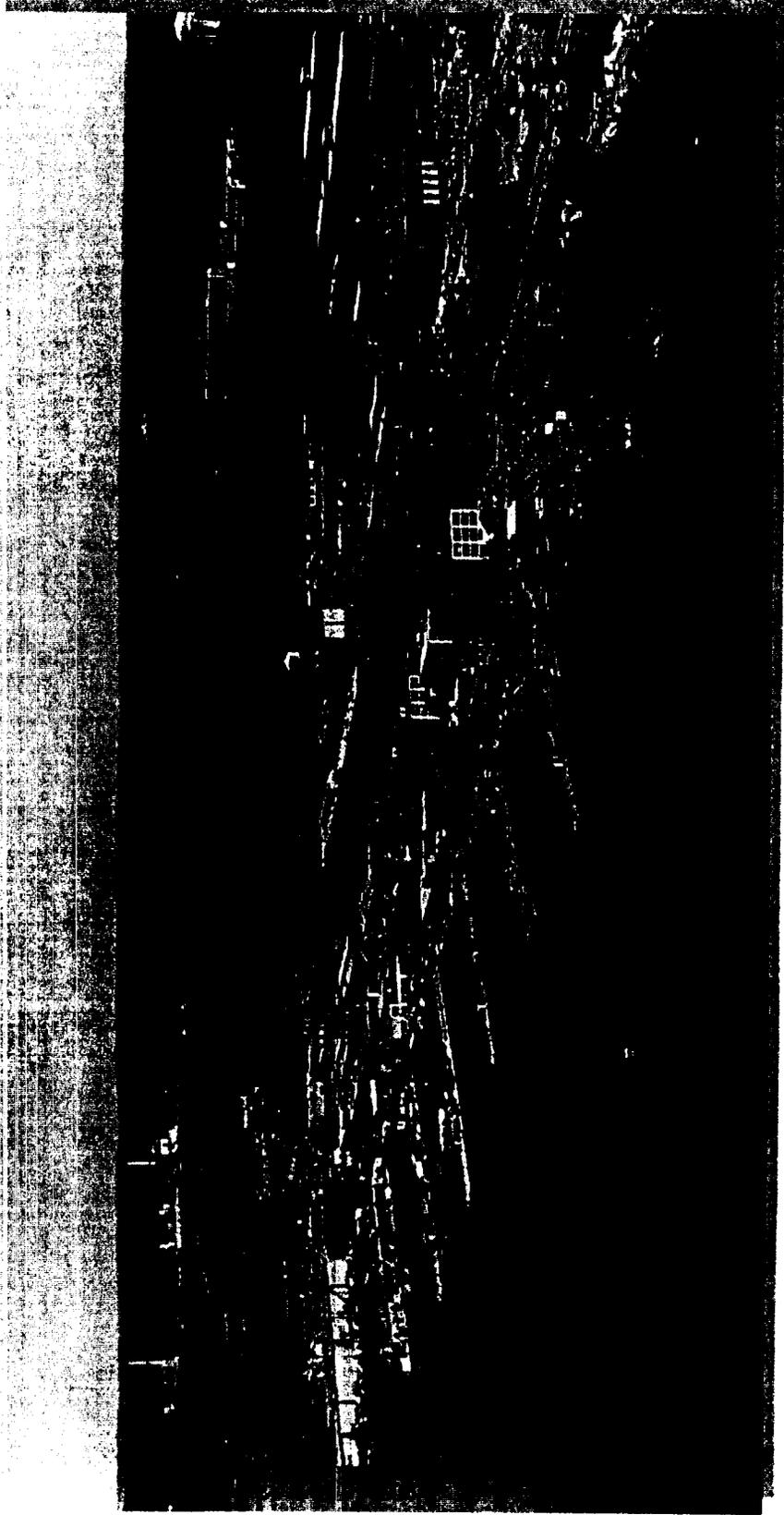
Merge Northeast into Mid-Atlantic Region
Close 2 Installations
Realign 4 Installations

	<u>Gains</u>	<u>Losses</u>
Naval Air Station, Brunswick	None	2420
Portsmouth Naval Shipyard, Kittery	None	4510
Naval Station, Newport	956	423
Naval Submarine Base, New London	None	8460
Naval Weapons Station Earle, Colts Neck	2	63
Naval Air Engineering Station	None	186



QUESTIONS?

Naval Submarine Base New London



Submarine Base New London

Home of Team New London

- **Land and facilities**

- 687 acres on Base
- 530 acres of Family Housing
- 36 acres at Fife Park
- 160 buildings
- Approximately 2,000 Family Housing Units
 - Plus Navy Lodge (75)
- 12 barracks with 1652 units
 - Plus Groton Chalet (150)

- **Personnel**

- 7,541 military personnel
 - Over 650 drilling Reservists
- Approx. 12,000 family members
- Approx. 12,000 retirees
- 967 civilian employees
- 1,000 contractors



Major SUBASE Commands population today

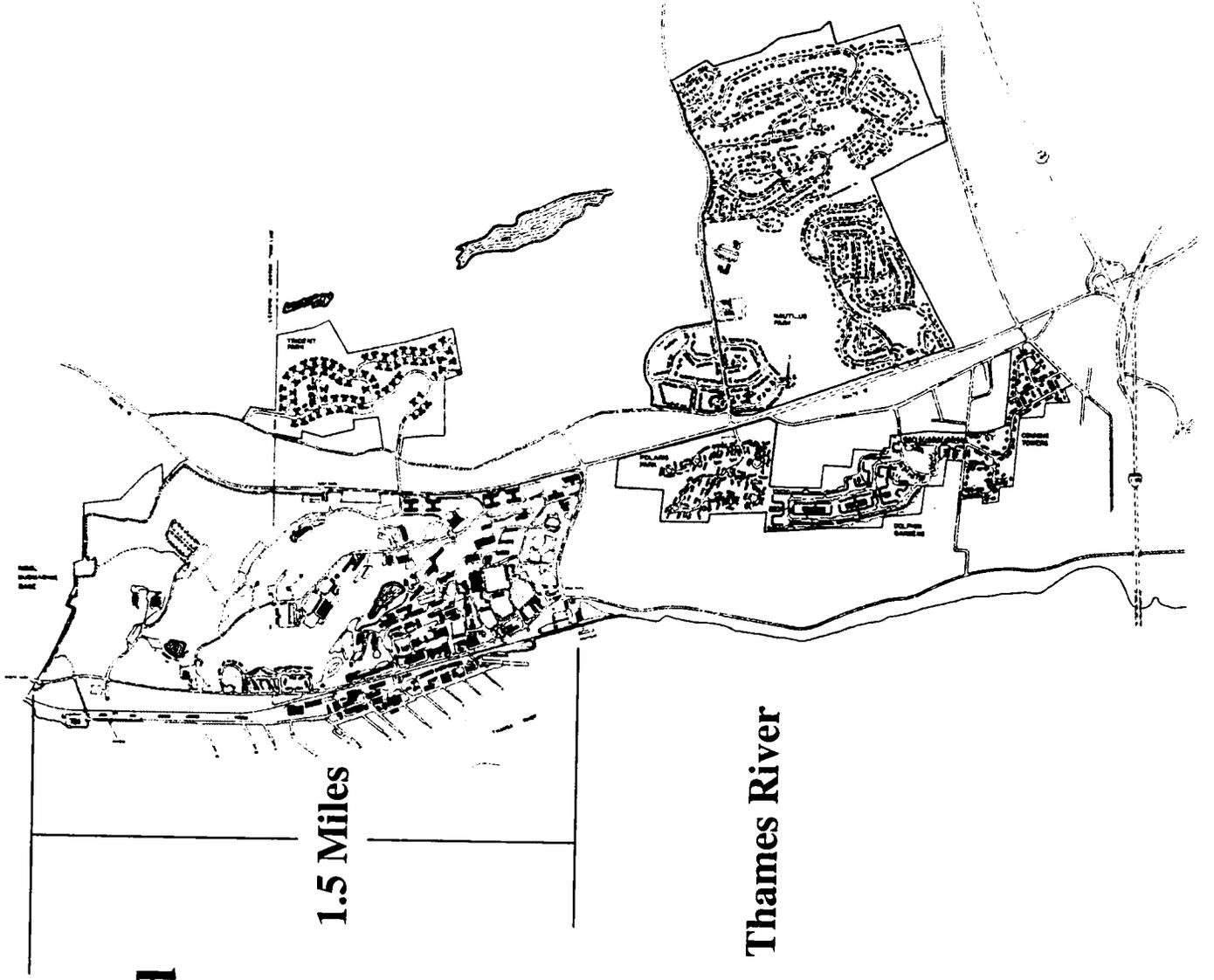
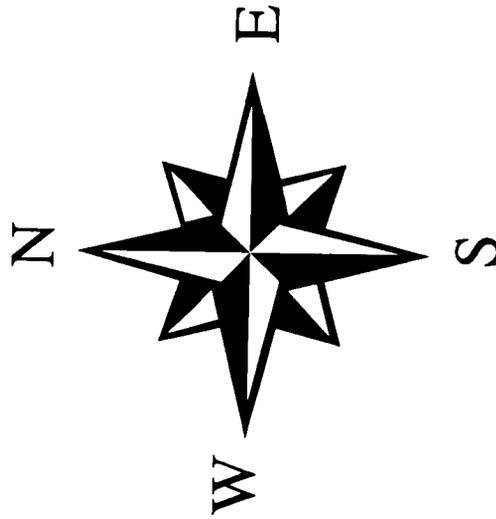
Command	Military Personnel	Civilian
SUBASE	887	611
CSG2	3,471	18
Repair Group	548	44
Naval Submarine School	2,239	37
NACC	256	119
NUMI	23	18
NSMRL	13	18
NSGA Groton	66	0
Navy Region Northeast	38	120
Total	7,541*	967

***612 Sailors at Electric Boat Shipyard and Historic Ship Nautilus that would not leave the area.**

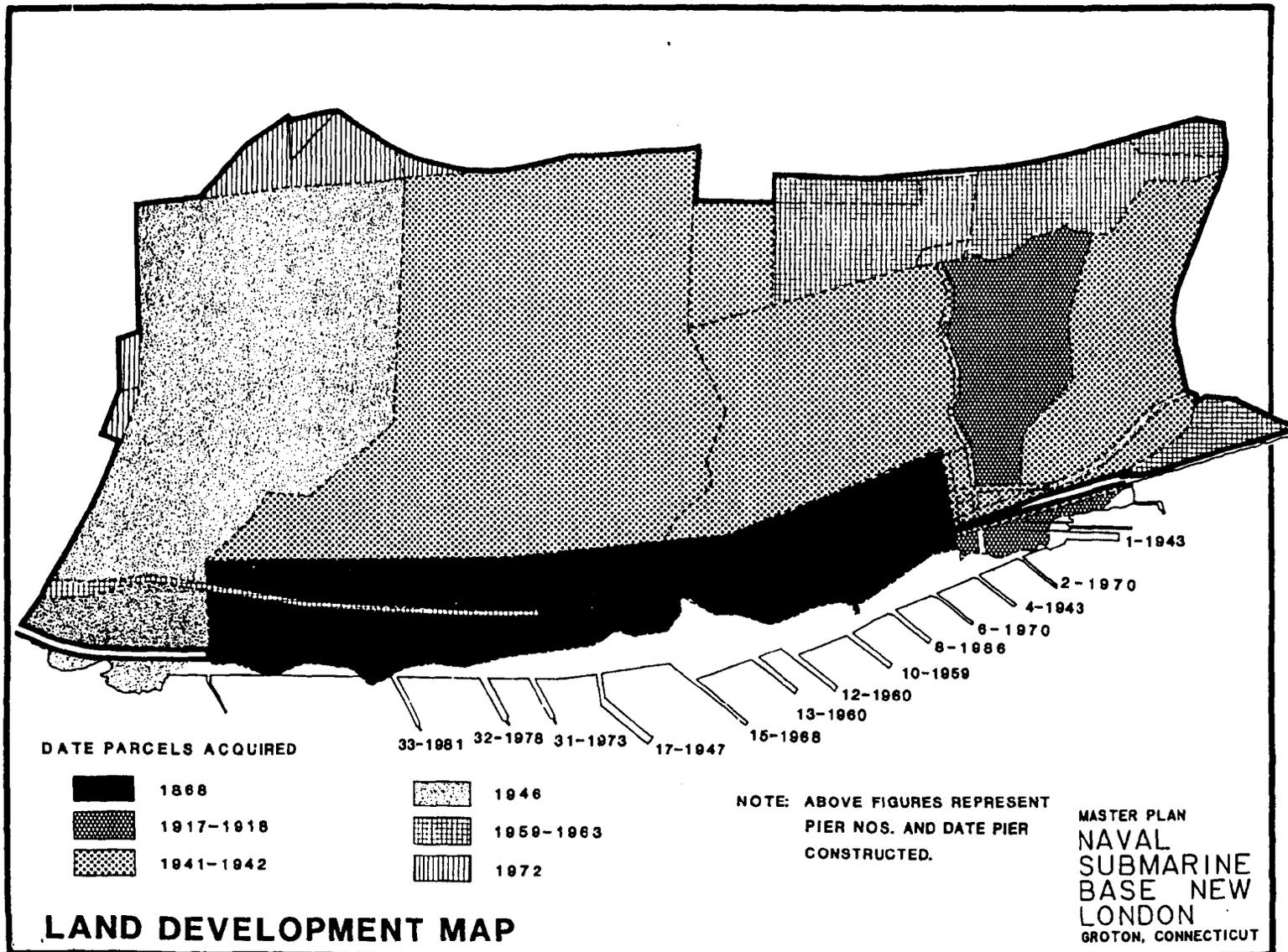
**Naval Submarine
Base New London and
GMH Housing
Community**

1.5 Miles

Thames River



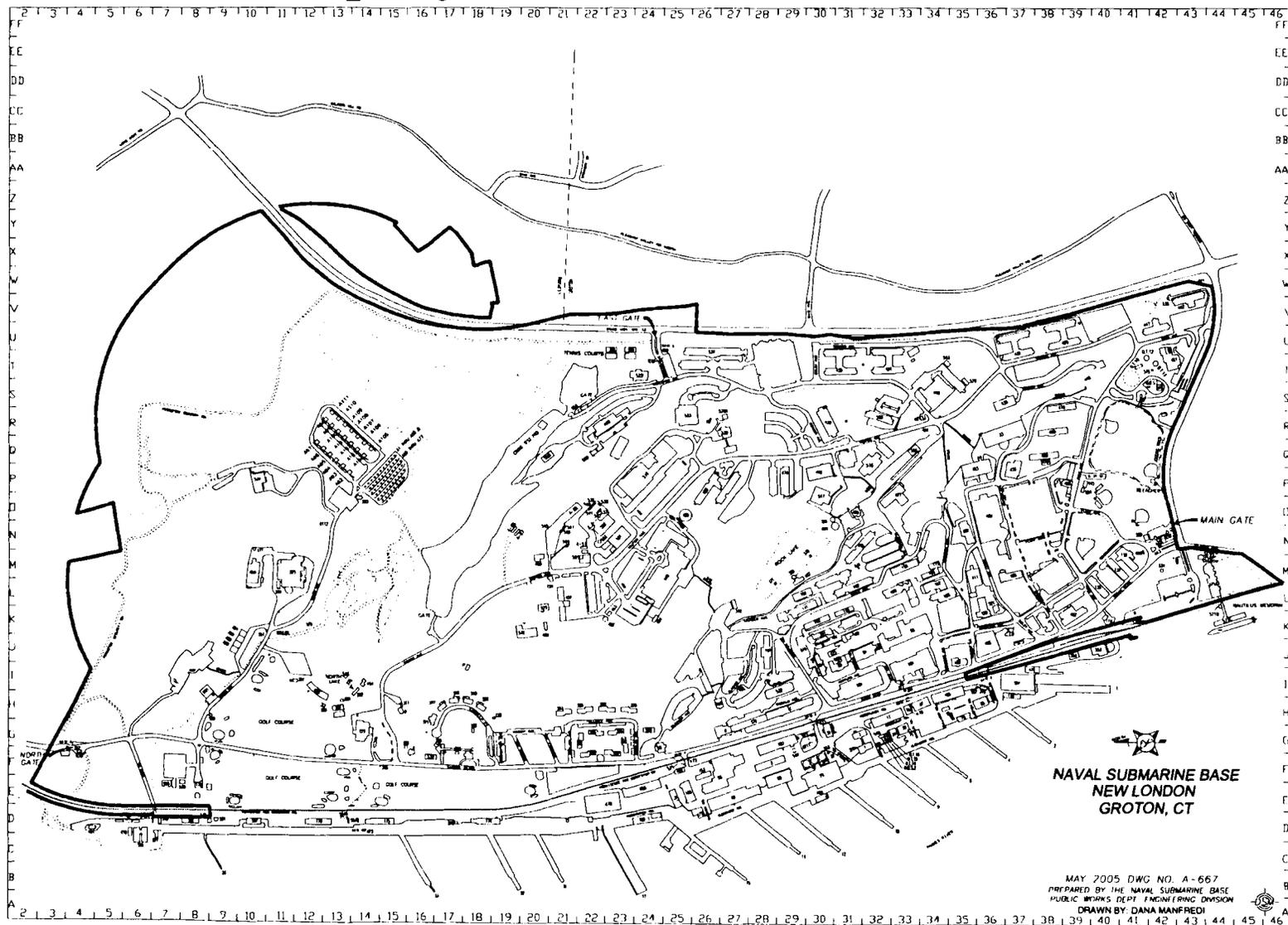
SUBASE Land Development History



7G-2

PLATE 7G-2

Property boundaries of SUBBASE



SUBASE Building Construction Periods

- **20 percent constructed after 1980**
 - ❖40 percent of overall utilized square footage
- **35 percent constructed between 1950 and 1970**
 - ❖30 percent of overall utilized square footage
- **45 percent constructed prior to 1950**
 - ❖30 percent of overall utilized square footage

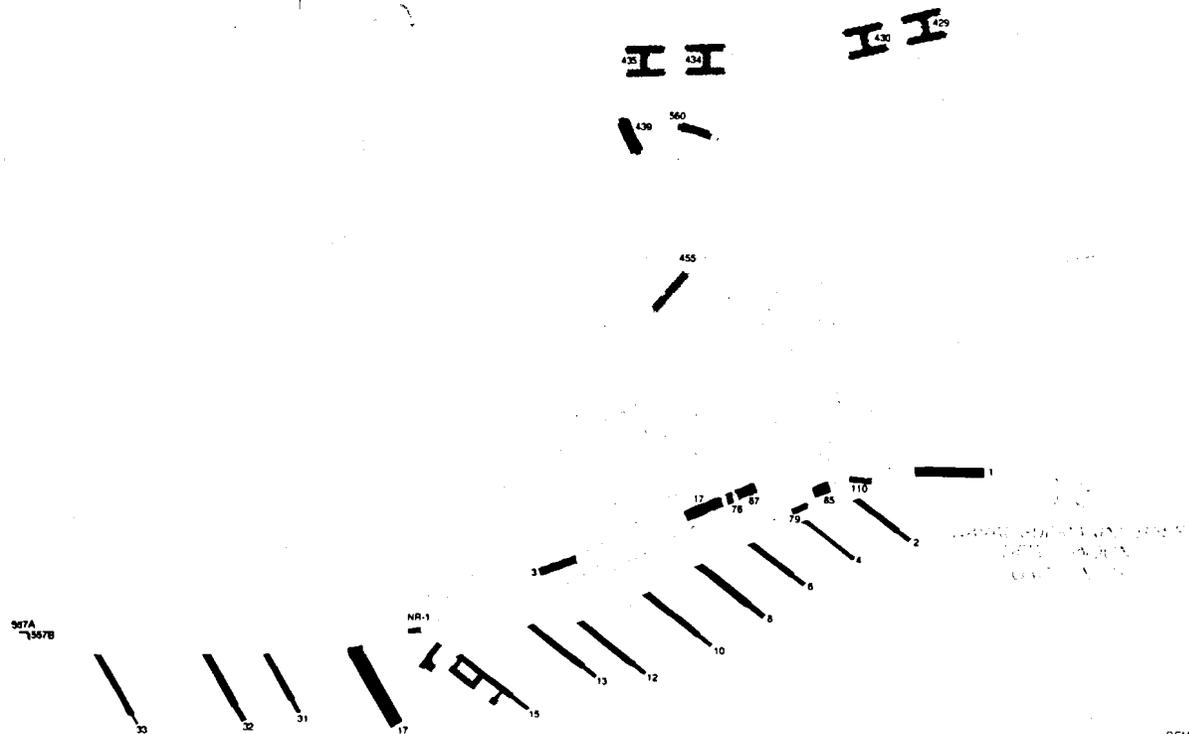
2005 Base Realignment and Closure

Recommendations for

Naval Submarine Base New London, CT

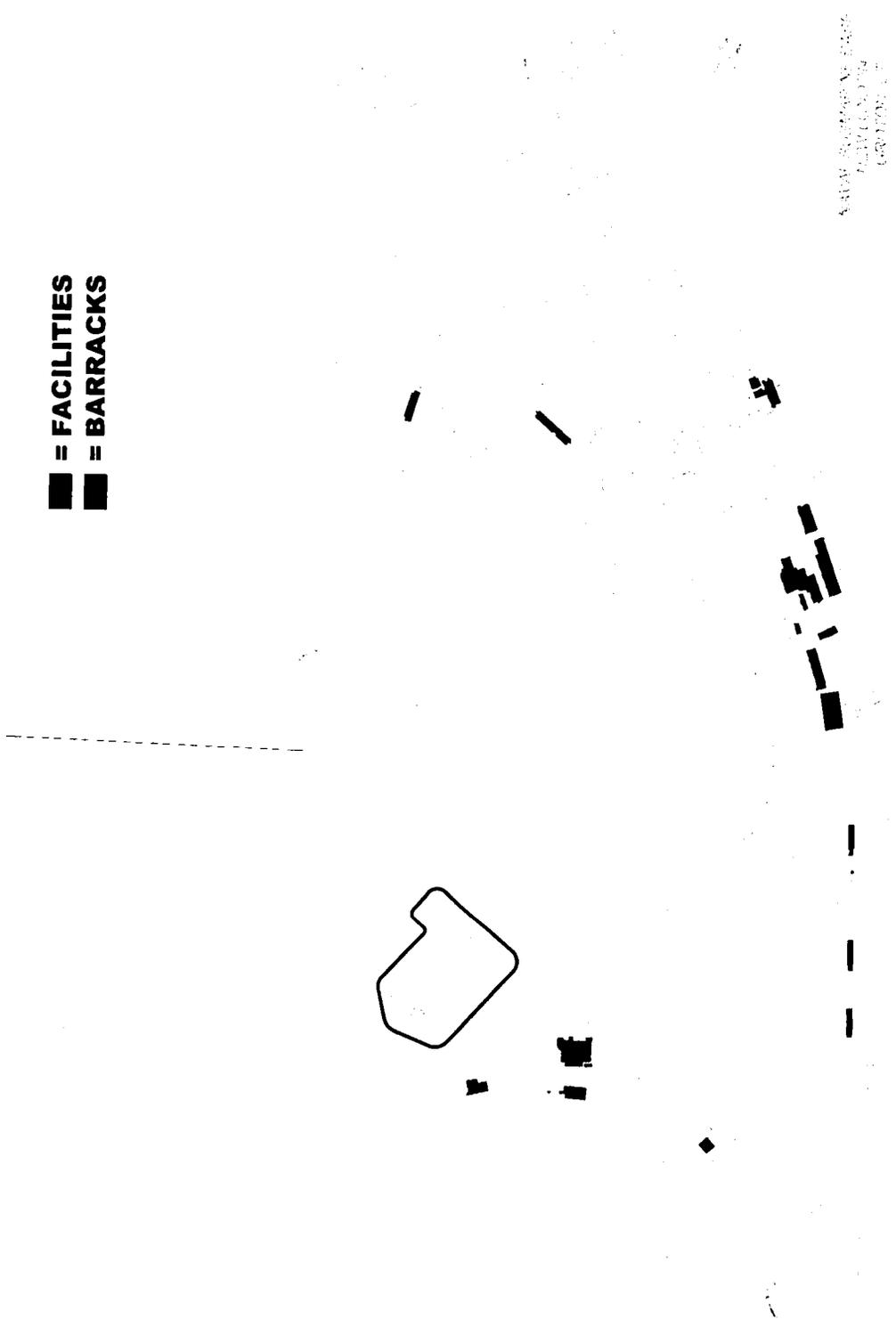
Commander Submarine Group TWO

- □ = GROUP II
- = PORT SERVICES
- = NAVAL SUBMARINE SUPPORT CENTER
- = BARRACKS



DRAWN BY: DANA MANFREDI DSM

Naval Submarine Support Facility New London, CT



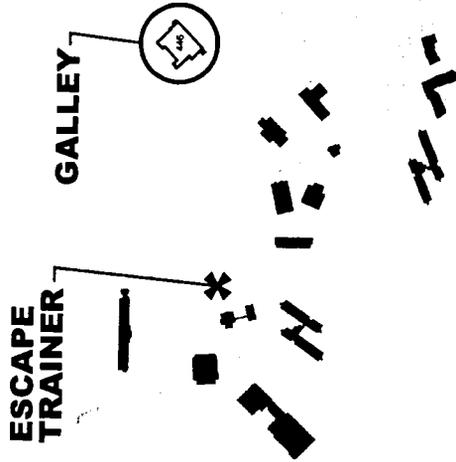
■ = FACILITIES
▨ = BARRACKS

NAVAL SUBMARINE SUPPORT FACILITY
NEW LONDON, CT

DRAWN BY: DANA MANFREDI

Naval Submarine School Groton, CT

■ = FACILITIES
■ = BARRACKS

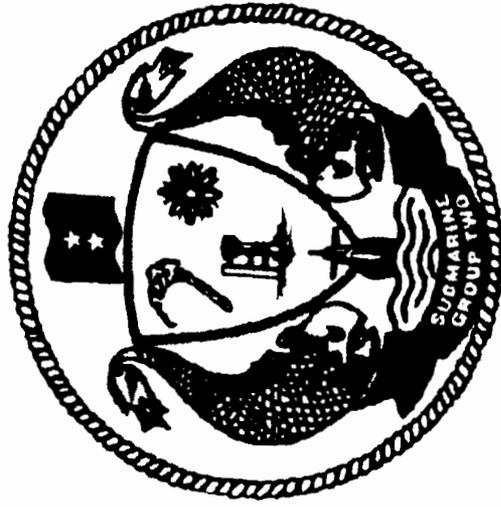


NAVY SUBMARINE SCHOOL
GROTON, CONNECTICUT

DRAWN BY DANA MANFREDI DSM



COMSUBGRU TWO Brief for BRAC Commission Visit



*Capt Bill Hanson
Chief of Staff
Commander, Submarine Group TWO
31 May 2005*



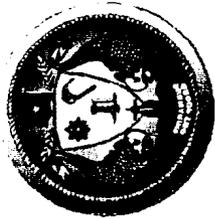
Today's Brief

- **Provide background information on our submarine force that will be useful in your work**
- **Focus in on COMSUBGRU TWO responsibilities**
- **Review BRAC recommendations**

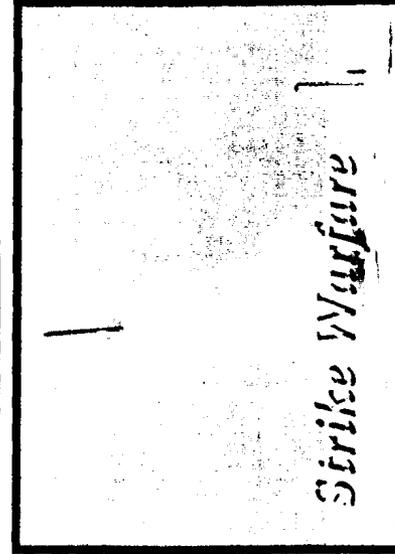
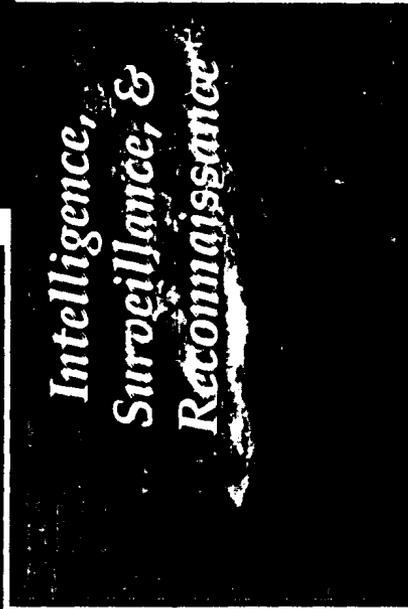
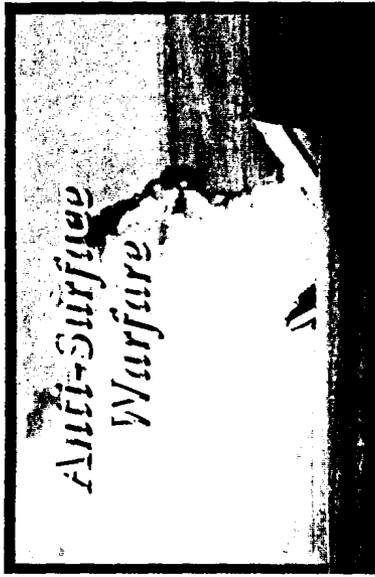


Submarine Force

The Submarine Force operates and maintains combat ready nuclear-powered attack submarines (SSNs) and strategic deterrent submarine (SSBNs)



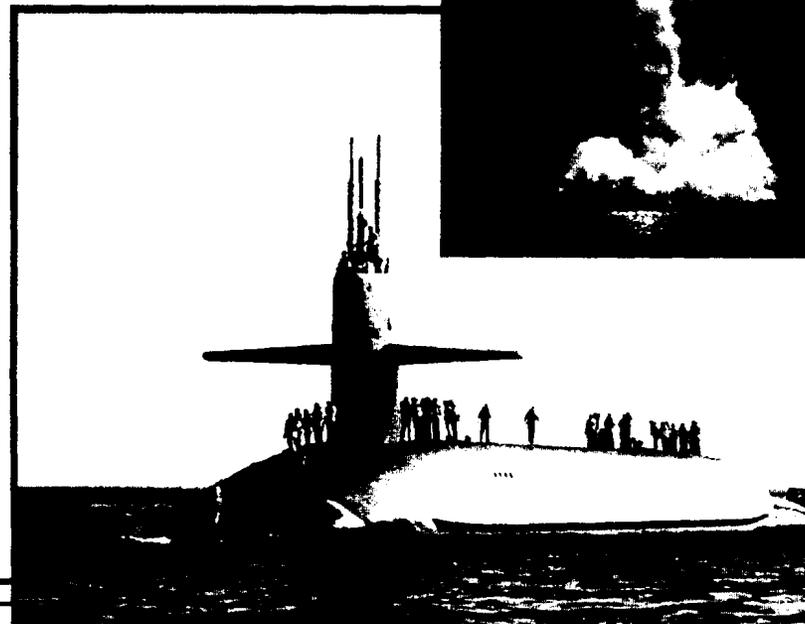
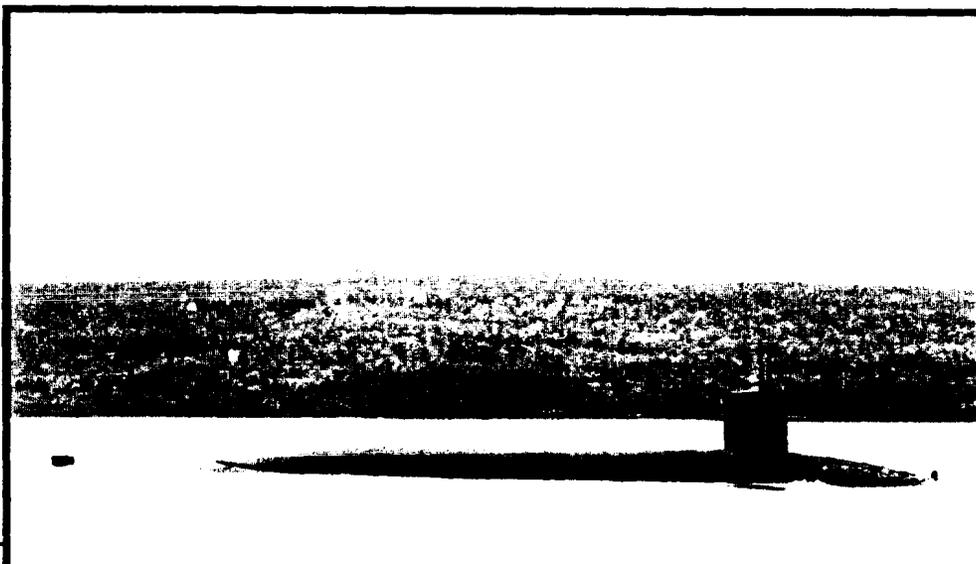
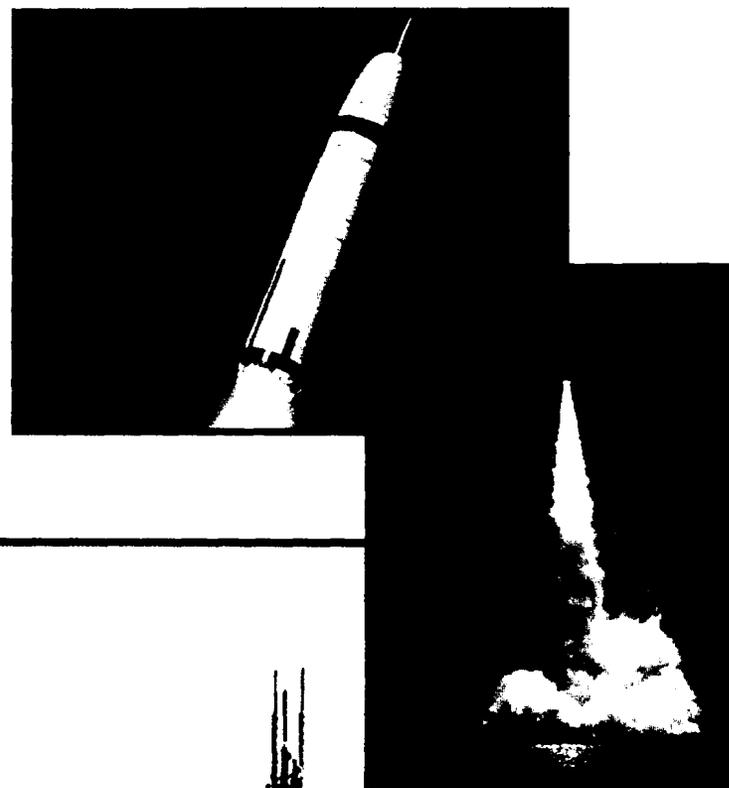
Attack Submarine (SSN) Mission Capabilities





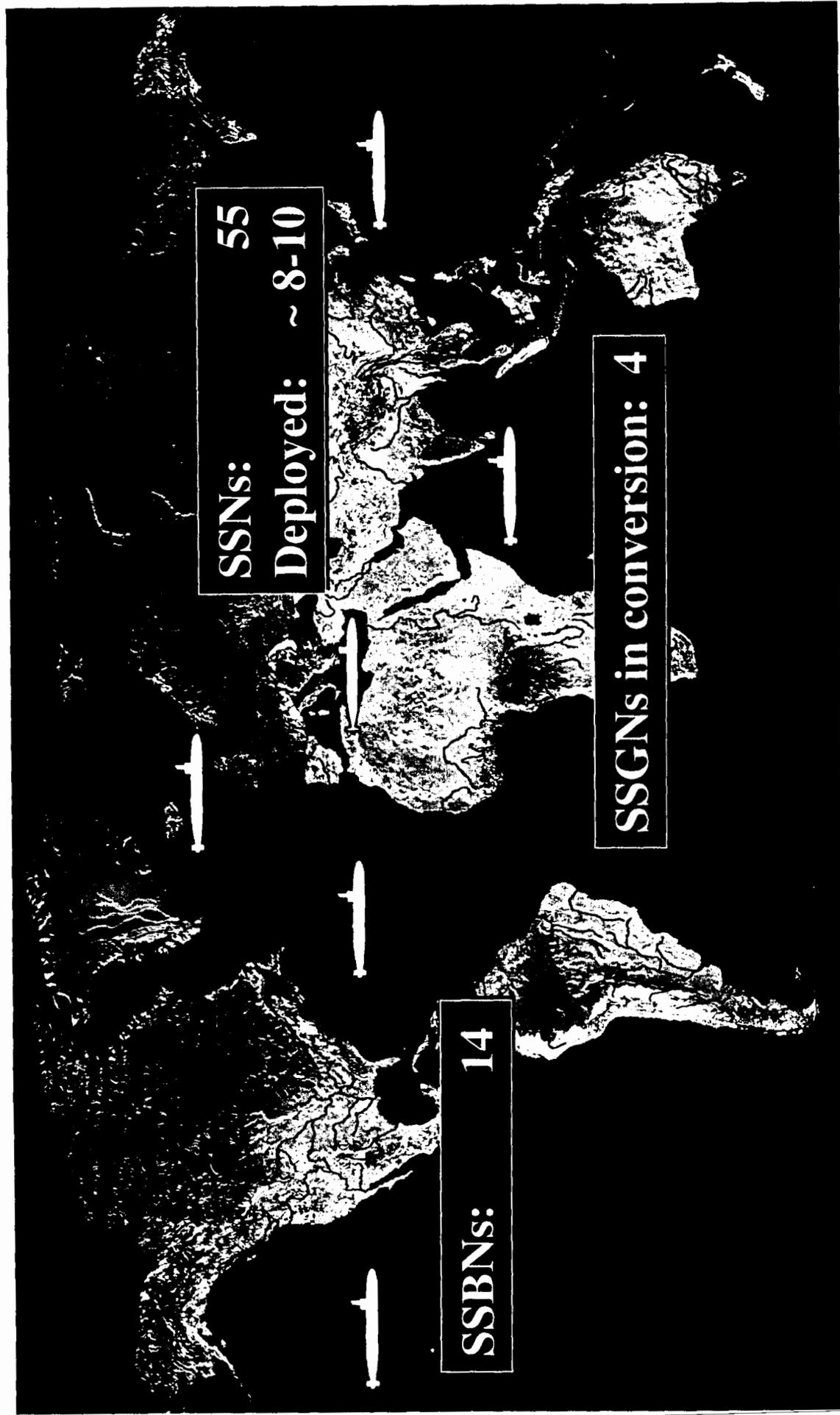
Trident Submarines (SSBN) Cornerstone of Strategic Deterrence

- **54% of warheads**
 - **19% of strategic budget**
 - **100% of survivable warheads**
 - **35% of strategic personnel**
 - **Over 3600 SSBN patrols since 1960**
- 770 Trident patrols**



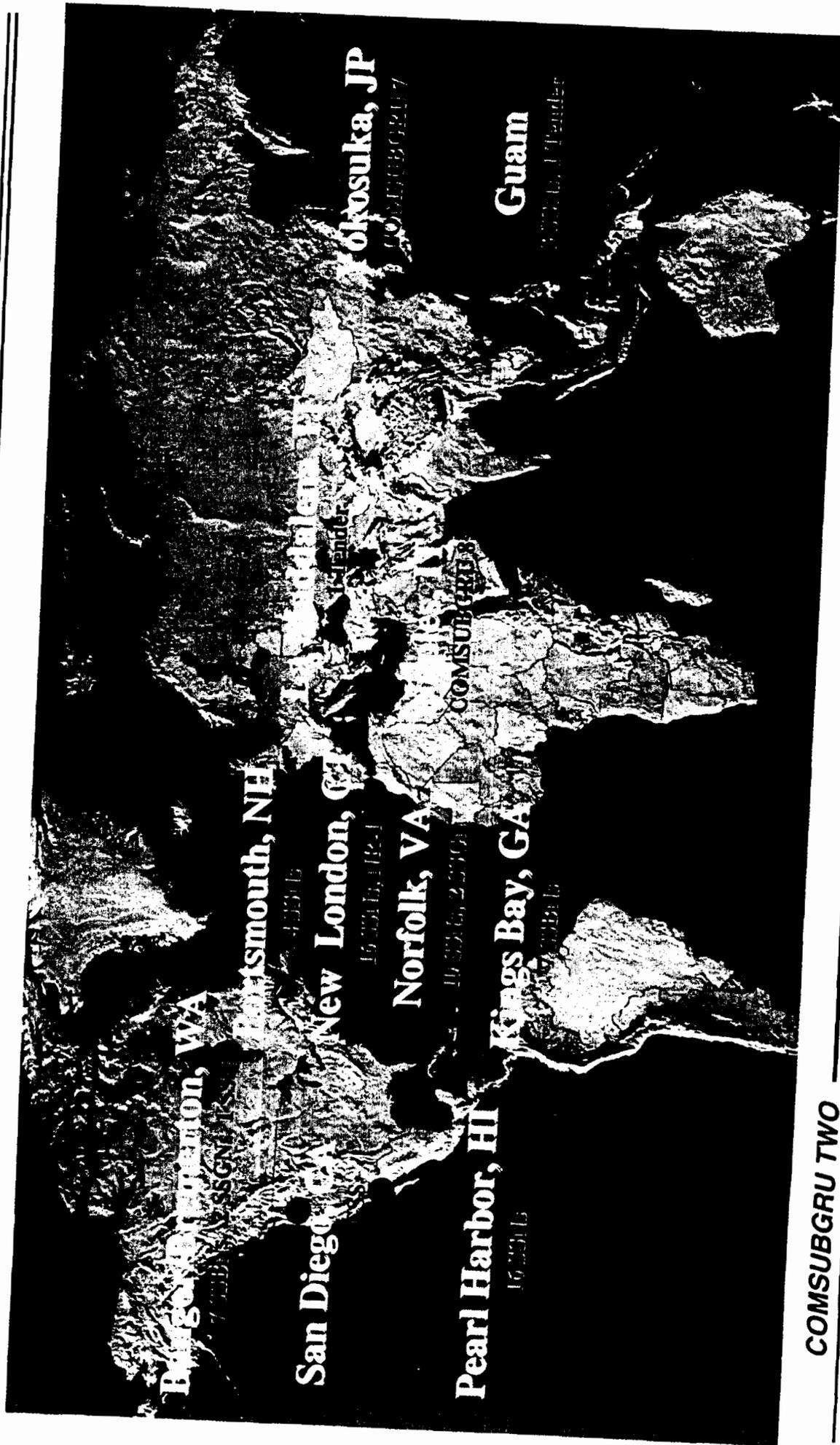


Today's Submarine Force





Submarine Homeports and Support



Bangor, ME
SSGN

Portsmouth, NH
43516

San Diego, CA
SSGN
16 3316

New London, CT
16 3316

Norfolk, VA
16 3316

Pearl Harbor, HI
16 3316

Kings Bay, GA
16 3316

COMSUBGRU

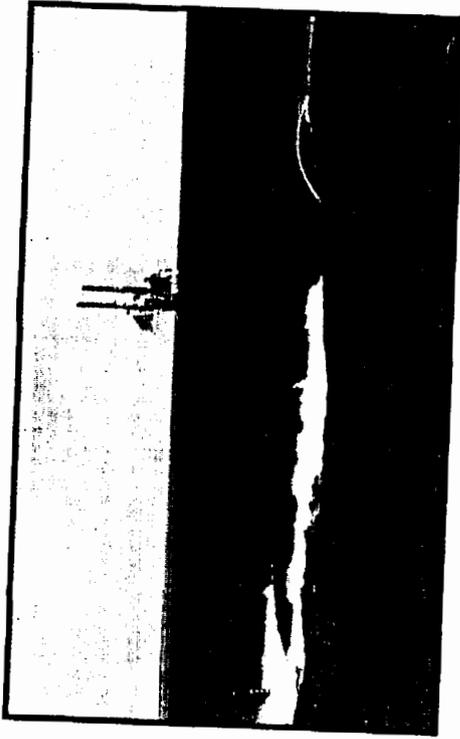
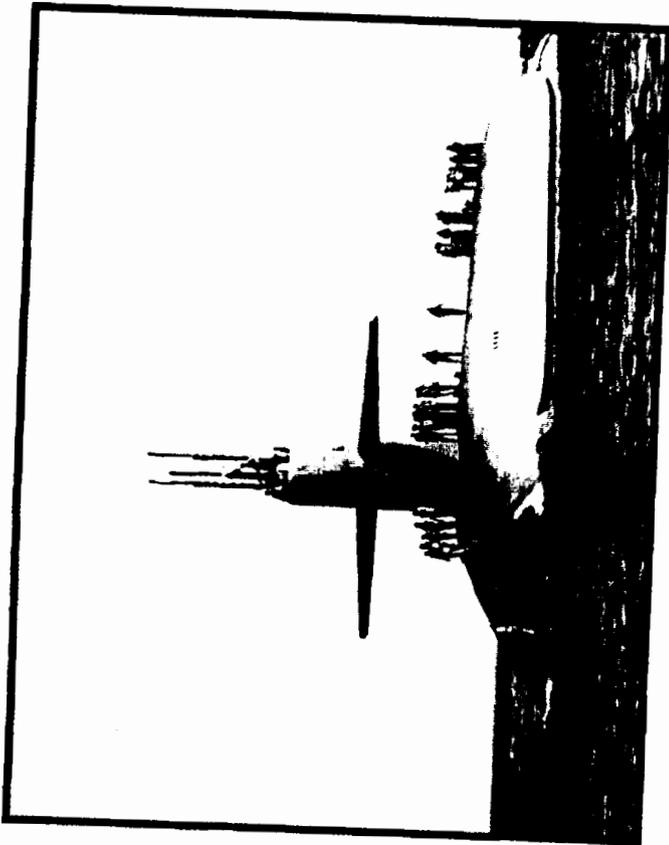
Yokosuka, JP
COMSUBGRU 7

Guam
COMSUBGRU 7

COMSUBGRU TWO



Submarine Group TWO/TEN



COMSUBGRU TWO



COMSUBGRU TWO

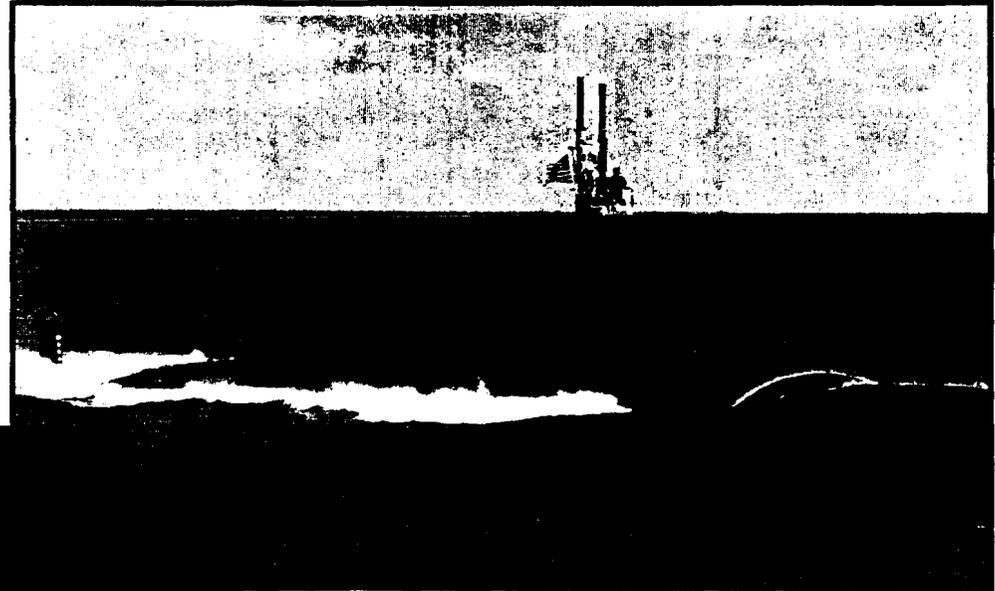
Force Structure

- **30 SSNs/5 Submarine Squadrons**
 - **18 SSNs/3 Squadrons based in New London, CT**
 - **12 SSNs/2 Squadrons based in Norfolk, VA**
- **3 New Construction SSNs and 6 SSNs in Shipyard availabilities**
 - **Northrop Grumman Newport News (VA) – New Construction, shipyard availabilities**
 - **Electric Boat (CT) – New Construction, Shipyard availabilities**
 - **Norfolk Naval (VA) – Shipyard availabilities**
 - **Portsmouth Naval (NH) – Shipyard availabilities**
- **Nuclear Power Research Submarine NR1**
 - **Based in New London, CT**
 - **One of a kind vessel (Inactivation FY12)**
- **Support Infrastructure**
 - **2 Naval Submarine Support Centers - New London, CT and Norfolk, VA**
 - **Regional Support Group - New London, CT**
 - **Naval Submarine Torpedo Facility – Yorktown, VA**



Los Angeles Class Submarines

- **First Flight**
- **Second Flight (VLS)**
- **Third Flight (688I)**



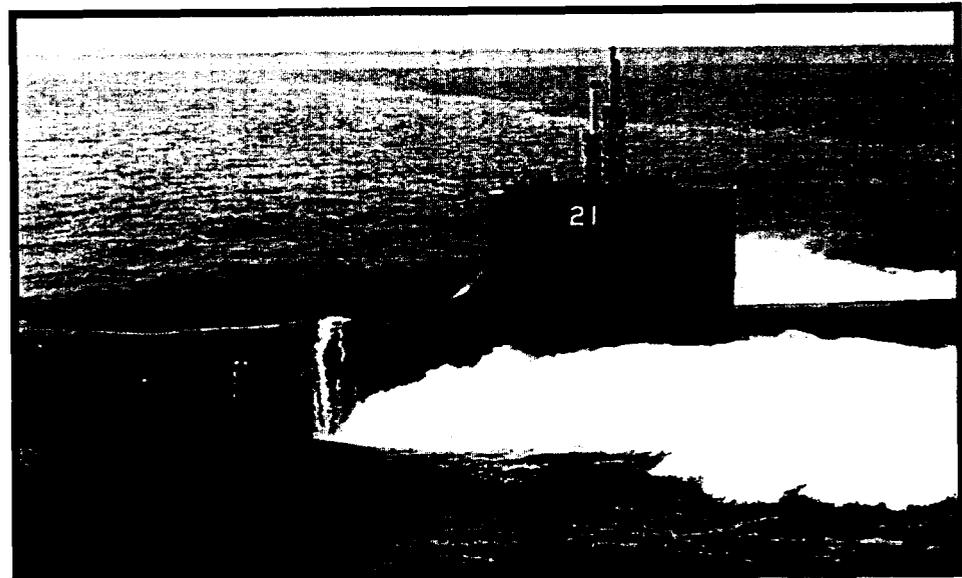
- **Length 363 feet**
- **Beam 33 feet**
- **Displacement 6,900 tons**
- **Manning 127 people**
- **4 Torpedo Tubes**
- **12 VLS Missile Tubes**

COMSUBGRU TWO



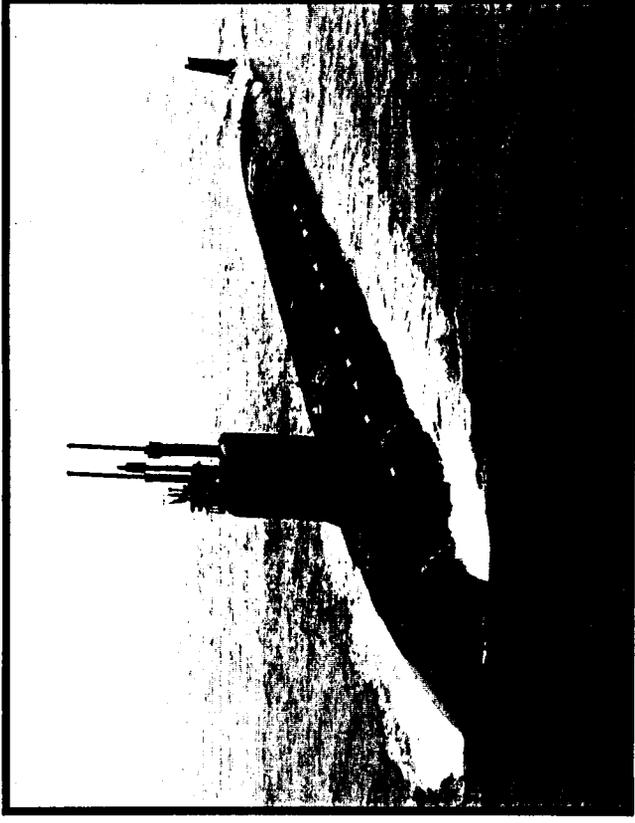
Seawolf Class Submarines

- **Seawolf, Connecticut**
- **Jimmy Carter**
(Multi-Mission Platform)
- **Length 353 (458) feet**
- **Beam 40 feet**
- **Displacement 9,150 tons (12,000)**
- **Manning 127 people (150)**
- **8 Torpedo Tubes**



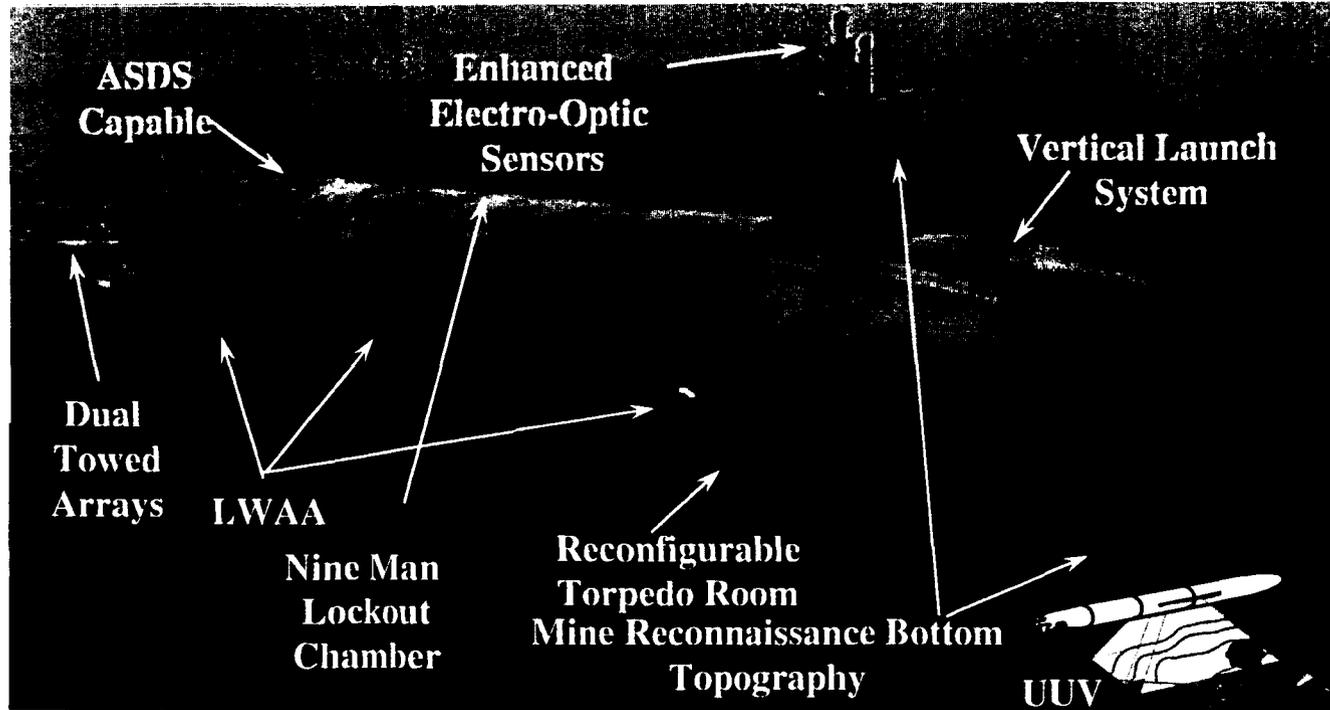
Virginia Class Submarines

- 1 Commissioned
- 3 New Construction w/crews
- Length 377 feet
- Beam 34 feet
- Displacement 7,800 tons
- Manning 113 people
- 4 Torpedo Tubes
- 12 VLS Missile Tubes





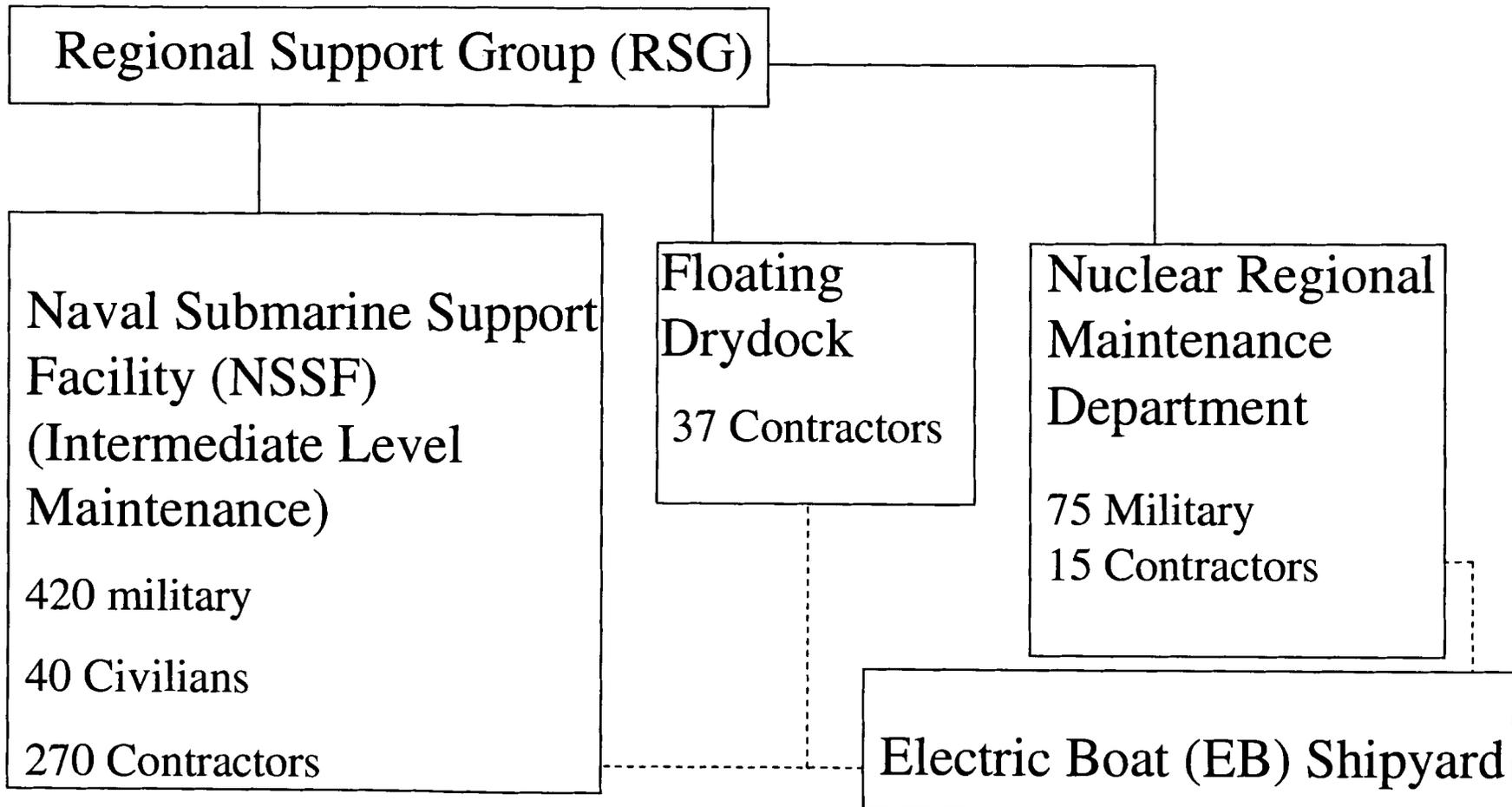
Virginia Class Submarines



- Designed completely w/computers (1st post Cold War design)
- Configurable platform
- Optimized for littoral operations
- Sophisticated electronics
- First submarine w/SOF support included



Submarine Base New London Waterfront Maintenance

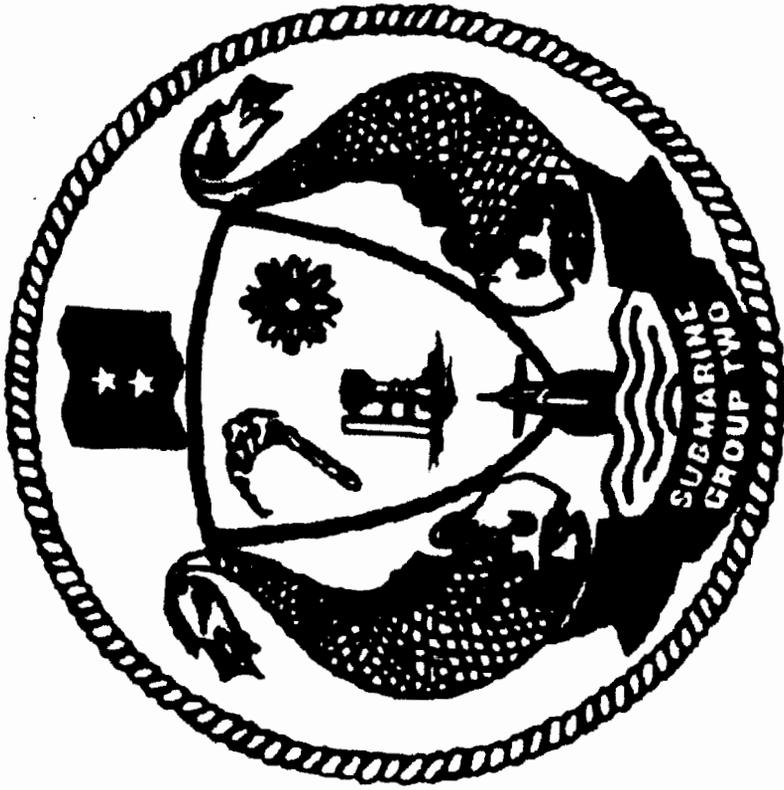




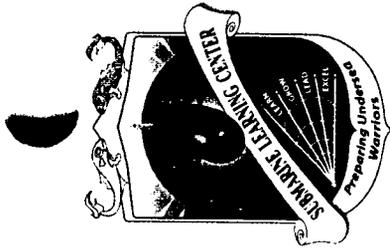
BRAC Recommendations

New London Naval Submarine Base has been recommended for closure, for COMSUBGRU TWO specifically:

- Relocating all SSNs from SUBASE New London, CT, to SUBASE Kings Bay, GA and Naval Station Norfolk, VA
- COMSUBGRU TWO will relocate from SUBASE New London, CT to Naval Station Norfolk, VA
- Integrating the SSN intermediate repair function of NSSF New London, CT with Trident Repair Facility Kings Bay, GA, with Shore Intermediate Maintenance Facility Norfolk, VA and Naval Shipyard Norfolk, VA.

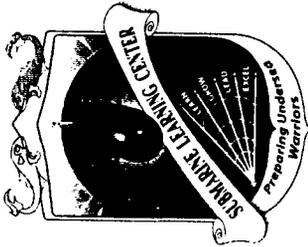


Questions?

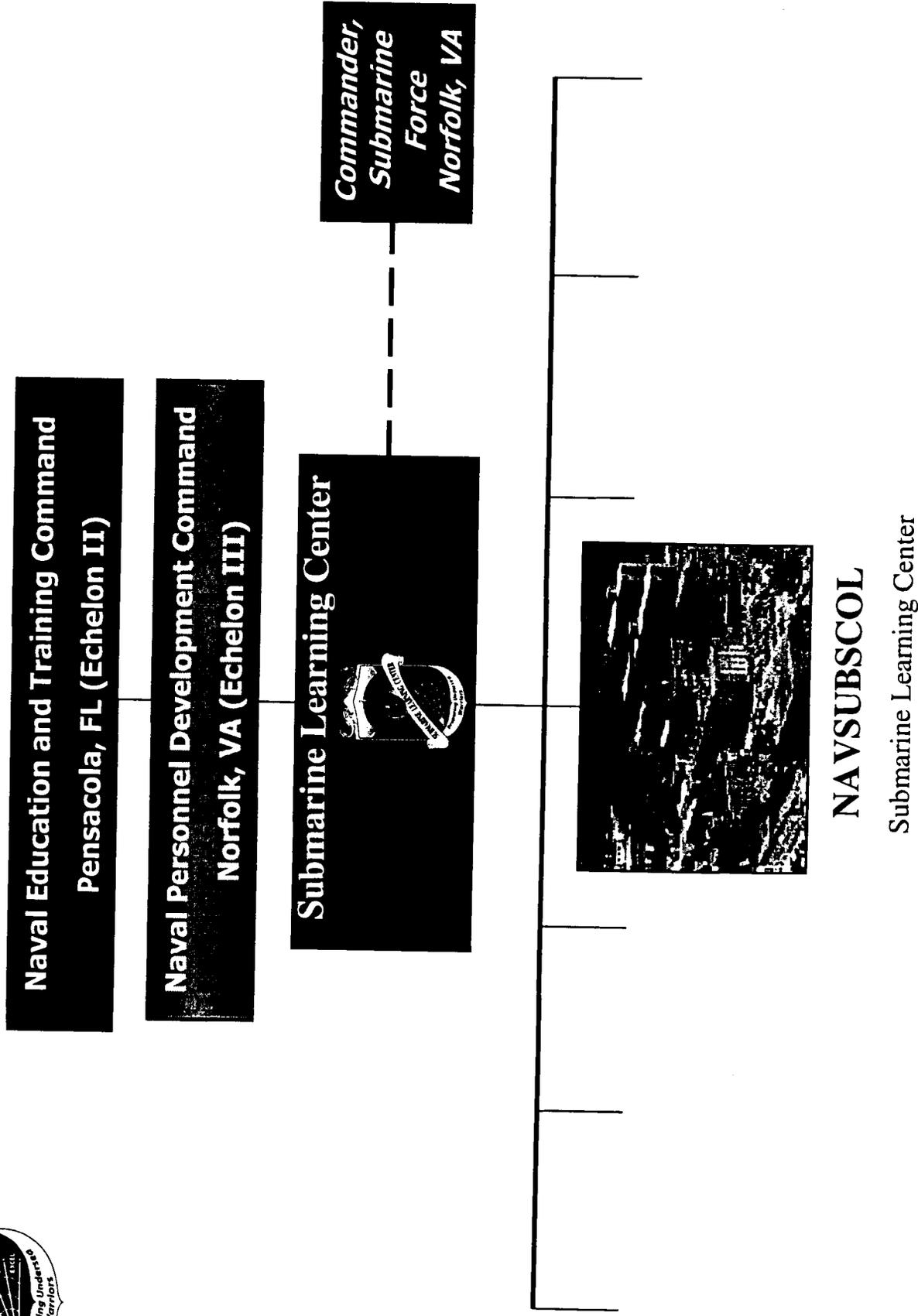


Submarine Learning Center and Naval Submarine School Overview for BRAC Commission

31 May 2005



SLC Training Chain of Command





Submarine Learning Center

Mission/Functions

- **Mission- Plan, resource and execute Submarine FORCE shore training at all Submarine homeports**
- **Functions- Responsible for all curriculum, Instructors, training equipment and school operations**

Naval Submarine School

Mission/Functions

- **Mission- Conduct all non-nuclear individual skills training for the Submarine FORCE and fleet training for Groton and Portsmouth Submarines**
- **Functions-Teach all Enlisted and Officer entry, journeyman, and advanced courses. Support all crew deployment cycle training requirements**



Submarine Learning Center



- 1 building
- Staff 73
- Echelon IV
- Reporting Commands 6
Submarine Learning Center



NAVAL SUBMARINE SCHOOL

Buildings: 11

Barracks: 2

Trainers: 100

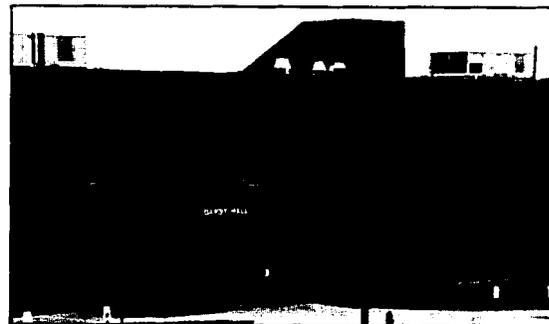
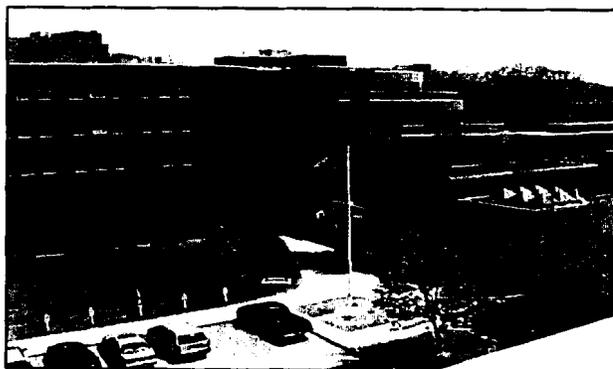
Staff: 570

Students Onboard: 2000

Yearly Thru put: 30,000

Courses: 250

Crews supported: 23



Officer Training



**Initial and Advanced Enlisted
Pipeline Training**



Submarine Learning Center

**Submarine Crew
Training**





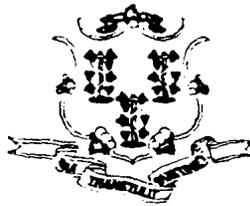
BRAC Recommended Actions

(Submarine Learning Center and Naval Submarine School)

- **Relocate Learning Center to Kings Bay**
- **Relocate Submarine School to Kings Bay**
 - **Additionally:**
 - **Kings Bay: Support one SSN Squadron**
 - **Norfolk: Support two additional SSN Squadrons**

**The Contribution of the Groton Naval Sub Base
and the Electric Boat Company to the Economies
of Connecticut and Southeastern Connecticut**

State of Connecticut



Economic Impact Analysis

May 3, 2005

**THE CONTRIBUTIONS OF THE NEW LONDON NAVAL SUB BASE AND THE
ELECTRIC BOAT COMPANY TO THE ECONOMIES OF CONNECTICUT
AND SOUTHEASTERN CONNECTICUT**

EXECUTIVE SUMMARY

THE CONTRIBUTIONS OF THE NEW LONDON NAVAL SUB BASE AND THE ELECTRIC BOAT COMPANY TO THE ECONOMIES OF CONNECTICUT AND SOUTHEASTERN CONNECTICUT

A Department of Economic and Community Development Economic Impact Analysis

EXECUTIVE SUMMARY

At the direction of Governor M. Jodi Rell, the Connecticut Department of Economic and Community Development (DECD) has conducted a study to estimate the contributions that the U.S. Naval Submarine Base New London in Groton Connecticut (New London Naval Sub Base) and the Connecticut operations of the Electric Boat Company make to the Connecticut and Southeastern Connecticut economies.

The New London Naval Sub Base is subject to the BRAC process, as are all domestic military installations. Connecticut has cause to be concerned as the New London Sub Base was considered for closing in previous BRAC rounds and competition for location or realignment of base operations is likely from a number of sites. This report presents the results of that analysis.

Introduction

The New London Naval Sub Base, located on the eastside of the Thames River in Groton, Connecticut, has been an integral part of Connecticut's maritime history dating back to 1868 when the State gave the Navy 112 acres of land along the Thames River to build a Naval Station. Since that time, the base has been fully operational during two world wars, the Korean and Vietnam conflicts, the Cold War stand off between the United States and Soviet Russia and most recently the Gulf War, the wars in Afghanistan and Iraq, and the international war on terror. Even though the nature of these conflicts has changed over the years, the U.S. submarine force continues to play a vital role in our national defense, and the New London Naval Sub Base is at the forefront of this changing mission. It has evolved into a unique facility that combines submarine operations with specialized training and cutting-edge submarine warfare research and development.

The co-location of the Sub Base with the Sub School and the various research and development tenant commands creates a synergistic effect that results in the "whole being greater than the sum of its parts." The close proximity of these entities results in the free flow of information and ideas that create greater operational efficiencies and enrich the educational environment. Further enhancing the capabilities, efficiencies and benefits of the Sub Base's configuration and location is its close physical and working relationship with the Electric Boat Company.

The U.S. Navy considers that Electric Boat, by virtue of its vast experience and innovation, is the world's premier resource for submarine technology. Electric Boat has maintained this position since designing the very first submarine for the U.S. Navy, HOLLAND, over one hundred years ago. The experience and innovation offered by

Electric Boat has been, and remains, the dominating influence in development of nuclear powered submarines in this modern era.

The inherent strength of Electric Boat derives in great measure from its enduring dedication to one product, for one customer. Electric Boat designs, builds, and supports submarines for the U.S. Navy. This dedication means that submarine technology is Electric Boat's number one priority. This dedication provides the U.S. Navy with the best submarines in the world.

The Contributions of the New London Naval Sub Base and the Electric Boat Company

While there has been a relationship between the operational submarines at New London Naval Sub Base and the ship designers and builders at Electric Boat, only in the last six years has the interdependence become essential to both facilities.

The Sub Base and its tenant commands depend on Electric Boat to provide the skilled tradespersons, supervision, and engineering support required to perform most Intermediate-level maintenance on the ships stationed there. Similarly, Electric Boat needs the work on the submarines at the Sub Base to maintain its skilled workforce above the "critical mass" level in the current submarine Low Rate Procurement (LRP) environment.

The results of this study confirm the fact that the New London Naval Sub Base and the Electric Boat Company are significant and critical parts of the Connecticut and Southeastern Connecticut economies.

The Navy's Sub Base in Groton, Connecticut, and Electric Boat, within short commuting distances of each other, work closely together to maintain the Navy's nuclear submarine force. This partnership is significant and can support not only scheduled routine maintenance and modernization, but also emergent or unscheduled work requiring technical expertise, depot level capabilities and a skilled resource-pool to accommodate surge requirements. The complementary Sub Base/Electric Boat Company relationship affords the government savings as well as efficiency and skilled resource flexibility, creating a synergy that is critical to the Navy and national defense.

Some Key Findings Are:

New London Naval Sub Base

- Contributes approximately \$841 million to Connecticut's GSP on average annually.
- Increases personal income for Connecticut residents by approximately \$431 million on average annually.
- Creates 6,794 direct jobs and approximately 2,537 indirect jobs in Connecticut.

**THE CONTRIBUTIONS OF THE NEW LONDON NAVAL SUB BASE AND THE
ELECTRIC BOAT COMPANY TO THE ECONOMIES OF CONNECTICUT
AND SOUTHEASTERN CONNECTICUT**

ECONOMIC IMPACT ANALYSIS

THE CONTRIBUTIONS OF THE NEW LONDON NAVAL SUB BASE AND THE ELECTRIC BOAT COMPANY TO THE ECONOMIES OF CONNECTICUT AND SOUTHEASTERN CONNECTICUT

A Department of Economic and Community Development Economic Impact Analysis

At the direction of Governor M. Jodi Rell, the Connecticut Department of Economic and Community Development (DECD) has conducted a study to estimate the contributions that the U.S. Naval Submarine Base New London in Groton, Connecticut (New London Naval Sub Base) and the Connecticut operations of the Electric Boat Company make to the Connecticut and Southeastern Connecticut economies. This report presents the results of that analysis.

I. INTRODUCTION

The New London Naval Sub Base and Electric Boat Company are a significant part of the Connecticut and Southeastern Connecticut economies. The results of this study confirm this fact. The co-location of the New London Naval Sub Base and Electric Boat Company in New London County create synergies that provide enormous benefit to our nation's national defense and manufacturing base.

These two entities contribute approximately \$3.3 billion to the state's Gross State Product (GSP) and are responsible for approximately 31,500 direct and indirect Connecticut jobs.

Purpose of Study

The primary purpose of this study is to estimate the contribution made by the New London Naval Sub Base and the Electric Boat Company's shipbuilding and ship maintenance operations to the economies of Connecticut and Southeastern Connecticut.

This study was designed to estimate the contributions of the New London Naval Sub Base and the Electric Boat Company to the Connecticut and Southeastern Connecticut economies. The process began with a review of the body of existing work that had been done in this area, primarily several impact studies that specifically address the New London Naval Sub Base and Sub School, the Electric Boat Company (or both) and/or the economic landscape of Southeastern Connecticut. (A brief summary of these studies is included in this report.) The DECD then developed an impact analysis methodology for measuring the subjects' economic contributions. Modeling scenarios were devised and the variables necessary to run simulations were selected. Data was collected from numerous sources and the analysis was conducted.

This report is not intended to make recommendations about the base itself or Electric Boat directly, nor is it intended to be an analysis of strategic advantages or political realities. Rather, its sole purpose is to provide an economic impact analysis (EIA) of two important assets to the regional and state economies.

Assumptions and Inputs

In an effort to estimate the contribution of the New London Naval Sub Base and the Connecticut operations of the Electric Boat Company, seven scenarios were developed and modeled using two different models, the Regional Economic Modeling, Inc. (REMI) Policy Insight™ model, and the federal Bureau of Economic Analysis' Regional Input-Output Modeling System (RIMS II). Data to support these scenarios was collected from numerous sources and analyzed.

The scenarios modeled are as follows:

1. The contributions of the New London Naval Sub Base and the Naval Sub School.
2. The contribution of the New London Naval Sub Base.
3. The contribution of the Naval Sub School.
4. The contributions of the New London Naval Sub Base, Naval Sub School, and the Electric Boat Company.
5. The contributions of the New London Naval Sub Base, Naval Sub School, and the Electric Boat Company (with reduced activity).
6. The contribution of the Electric Boat Company.
7. The contribution of the Electric Boat Company (with reduced activity).

These scenarios were selected because they break the Naval Facility down into its major constituent components. This allows for the analysis of different combinations of activities, ultimately eliciting a range of impacts that represent the full spectrum of value that the state and local economies derive from the presence of the Naval facility and the Electric Boat Company.

Due to the unique and interdependent relationship between the New London Naval Sub Base and the Electric Boat Company, it is important to measure the contributions of each entity and their combined contribution. Two of the aforementioned scenarios examine the combined economic impact of the sub base and the company.

Sources for the supporting data include the New London Naval Base, the Electric Boat Company, the Sub Base Realignment Coalition, the U.S. Department of Defense (DOD) and publicly available documents.

II. REVIEW OF PREVIOUS STUDIES

The contributions of the New London Naval Sub Base and the Electric Boat Company have been measured by numerous studies over the years. **Note:** None of the data appearing in this section was used in the current estimation of the contribution of the New London Naval Sub Base and/or the Electric Boat Company.

A Summary of the Findings of Previous Economic Impact Studies of the New London Naval Sub Base and/or the Electric Boat Company.

The University of Connecticut's Connecticut Center for Economic Analysis (CCEA) prepared several studies from 1993 to 1995 examining the potential effects of spending and employment reductions that would be the result of the closure and/or realignment of the New London Sub Base. All of these studies employed the REMI Policy Insight Model, developed by Regional Economic Models, Inc., the "REMI" model.

*Groton-New London Submarine Base Closing: An Economic Impact Study*¹, 3/17/93

This study examined the loss of 4,655 military positions at the New London Naval Sub Base. This loss was combined with the alternative of relocating 3,542 Orlando, Florida naval training positions to Connecticut for a net loss of 1,113 military positions and 1,114 civilian positions, or 2,227 "direct" jobs. Four cases were examined: (1) Gain Orlando/Previously "normal" defense expenditure reductions, (2) Gain Orlando/1993 expenditure level cuts, (3) No Orlando previously projected cuts, (4) No Orlando/1993 projected cuts. With Orlando, total State employment falls 2,714 by 2000. Without Orlando, employment drops by 8,414 (Cases I and III). With Orlando, jobs fall by 698 by 2000, and without Orlando by 2,201 (Cases II and IV).

*Defense Spending Cuts in New London County: An Economic Impact Study*², 5/11/93

Having acquired, with DECD funding, the New London County REMI model, the CCEA examined the impact on New London County and Connecticut both in terms of job loss and population loss under four scenarios: "Worst case 1"—all known defense cuts and base closure resulting in 31,323 lost jobs (21% of New London County workforce); "Navy recommendation case 2" – all known defense cuts and base closure, but Orlando moves to Groton resulting in 26,122 lost jobs (17.6%); "status quo case 3" – retain the sub base but cut Electric Boat employment to 7,500 by 1997 resulting in 23,651 lost jobs (16%); "best case 4" – retain base with all known and planned cuts including the Electric Boat Company cuts resulting in a loss of 20,052 jobs (13.6%). All had "an enormous effect."

*Navy's Recommendations for New London County to the BRAC Commission*³, 5/5/95

In this study CCEA examined the impact of three realignment and closure scenarios. Case A: Navy recommendations are carried out in combination with already executed cuts and the Electric Boat Company, closing of the Naval Undersea Warfare Center, and transfer of the Naval Nuclear Training School to South Carolina. This results in 14,003 jobs lost and an \$837 million reduction to GSP. Case B: same as Case A, but with the addition of the Training School transferred to Groton. This results in 11,020 jobs lost and a \$916 million reduction to GSP. Case C: Only the NUWAC is closed. This results in the loss of only 2,015 jobs and an \$89 million reduction in GSP.

More recently, in 2004 the Southeastern Connecticut Enterprise Region (seCTer) and the Southeastern Council of Governments contracted with Mt. Auburn Associates, PPSA, and CERC to prepare a *Comprehensive Economic Development Strategy* (CEDS) for the U.S. Economic Development Administration. This report, while not specifically focused on the

contribution of the New London Sub Base or the Electric Boat Company to the economy of southeastern Connecticut, does include the contribution of these two entities in its examination of the southeastern economic landscape. The authors of the study modeled the impact of the closure of the Sub Base using the IMPLAN econometric model. The results of their econometric analysis concluded that the "economic impacts associated with the closing of the Submarine Base would be quite severe and long lasting. Our analysis suggests that if both the base and the Electric Boat were to close, local impacts in New London would include the direct and indirect loss of \$2.4 billion in industry sales, the direct loss of more than 15,000 jobs, as many as another 8,000 due to the ripple effect, and a 15 percent drop in the gross regional product."⁴

III. NEW LONDON SUB BASE HISTORY AND CHARACTERISTICS

History

The Naval Submarine Base New London is the Navy's first Submarine Base and is currently the home of the nation's "Submarine Force." In 1868, the State of Connecticut gave the Navy 112 acres of land along the Thames River to build a Naval Station. The base was originally used as a coaling station by Atlantic Fleet small craft, however on October 13, 1915, the monitor Ozark, a submarine tender, and four submarines arrived in Groton and shortly thereafter additional submarines and support craft arrived and the facility was named as the Navy's first Submarine Base. Following World War I the Navy established schools and training facilities at the base.^{5, 6}

Location

The New London Naval Sub Base is located on the eastside of Thames River in Groton, Connecticut, across from the city of New London. Although the base is physically located in Groton, Connecticut, the base originally had its main offices and housing in the larger city of New London, and hence was christened as Naval Submarine Base New London.⁷

The location of the Sub Base provides many benefits to the Navy. It is located in a "protected harbor" which offers protection from adverse weather. It is in close proximity to the Electric Boat Company – the leading submarine builder and servicer and it provides Naval personnel and their families access to a high quality of life.

Salary.com, a national Web site specializing in salary and compensation data, recently conducted a national survey to find the best and worst "U.S. cities in terms of affordability." The survey looked at "a variety of financial factors, ranging from median salaries to unemployment rates and the cost of living. Those factors determined this year's 'best and worst' rankings of what it termed 'profitable cities,' or those places where workers can get more out of their paychecks."⁸

Dan Malachowski of Salary.com asks the question: "Have you ever considered becoming a resident of the historic whaling port of New London, Connecticut?" He describes the community as follows: "An old colonial town founded in 1646, New London is set between New York and Boston and is home to the U.S. Coast Guard Academy, as well as Connecticut College." He goes on to state that, "this colonial gem is not stuck in the past. New London topped our list with salary ranges above the national average, a low cost of living, and a low unemployment rate."⁹

In contrast, San Diego, another city home to a naval facility, made it into the bottom five cities on the list because of its high cost of living.¹⁰

Land and Facilities

Along with 36 acres at Fife Park, the main base currently occupies more than 687 acres containing approximately 230 major buildings with an approximate replacement value of \$914,000,000. The base also has over 530 acres of family housing comprised of 2,101 Navy housing units plus 75 units at the Navy Lodge and 12 barracks with 1652 units, plus 150 units at the Groton Chalet. The base is home to more than 70 tenant commands. Approximately 12,000 family members and 12,000 retirees utilize the bases facilities annually along with over 15,000 additional USA/USAF/USCG/USMC personnel. The base has a combined annual electricity/water/gas/sewer bill of \$17,870,000.¹¹

The base is also homeport to 1 Floating Drydock (ARDM-4) operated by Electric Boat, Naval Research-1, the Navy's Nuclear-Powered Research Submarine and the Naval Research -1 Support Ship.¹²

Personnel and Payroll

There are 7,800 military personnel stationed at the base and over 650 reservists drill there annually – which amounts to 167 full-time equivalent jobs in the economy (see methodology). The base employs 1,400 civilians and over 1,000 contractors. Annual military and civilian payroll is approximately \$452,000,000.¹³

Submarines Stationed:

The base is homeport to 18 Nuclear Attack Submarines:¹⁴

- 14 LOS ANGELES Class (7 SSN-688 (2 VLS), 7 SSN-688I)
- 3 SEAWOLF Class (SSN-21)
- 1 VIRGINIA Class submarine – VIRGINIA (SSN-774)

Major Tenant Commands

There are more than 70 Tenant Commands located on the New London Sub Base. The major commands include:

- **Commander Navy Region Northeast**
This command is “headed by a flag officer, exercises military command over and provides primary support to Navy shore installations from New Jersey to Maine. Falling within Northeast Region's area of responsibility are: Naval Submarine Base New London; Naval Air Station, Brunswick, Maine; Portsmouth Naval Shipyard, Kittery, Maine; Naval Weapons Station, Earle, NJ; Naval Air Engineering Station Lakehurst, NJ; Naval Support Unit Saratoga Springs, NY; and Naval Station Newport, RI.”¹⁵
- **Commander Submarine Group TWO**
This command is “headed by a flag officer, exercises command of Commander, Submarine Forces, U.S. Atlantic Fleet forces administratively assigned and operation control of units of other forces when assigned. The primary purpose of Group TWO is to provide support, maintain personnel and material readiness, standards and work for increased economy and efficiency.”¹⁶
- **Naval Submarine Support Center**
This command is “responsible to centralize administrative control and support functions, economize resources and provide a common pool of experts by providing complete functional support to the Squadron Commander of Submarine Squadrons TWO and FOUR, and Submarine Development Squadron TWELVE, in the areas of Administration, Medical, Legal, Chaplain, Supply, Combat Systems, Engineering, Communications, and operations.”¹⁷
- **Submarine Squadron TWO**
“Squadron TWO's mission is to carry out the assigned tasks designated by Commander Submarine Force U.S. Atlantic Fleet; to provide operation direction as well as administrative and logistic support to assigned ships.”¹⁸

- **Submarine Squadron FOUR**
 The "Commander, Submarine Squadron FOUR's mission is to carry out the assigned tasks designated by Commander, Submarine Force, U.S. Atlantic Fleet and to provide operational and engineering support to assigned ships."¹⁹
- **Submarine Development Squadron TWELVE**
 "In addition to providing operational and engineering support to assigned ships, Squadron TWELVE is tasked as tactical development authority for Submarine Forces Atlantic and Pacific. This is a unique responsibility, which is dedicated to the formulation and improvement of submarine tactics and to the measurement of the effectiveness of the newest submarines."²⁰
- **Naval Submarine Support Facility's**
 This command's "primary mission is direct support to submarines assigned to Squadrons TWO, FOUR and TWELVE. Visiting ships are often supported. NSSF is organized along the lines of an afloat submarine tender Intermediate Maintenance Activity and employs more than 1200 sailors and civilian specialists."²¹
- **Naval Submarine School**
 This command is the "oldest fleet functional school in the navy and the only Submarine training school in the Navy. Submarine School instructs over forty thousand Sailors annually in courses ranging from one day to over six months in length. As the "Center of Excellence for the Submarine Force" Submarine School conducts all levels of training for both officers and enlisted personnel."²²
- **Naval Undersea Medical Institute**
 This command is "tasked with providing training in undersea medicine and radiation health to designated medical department personnel, and to provide technical support in matters related to undersea medicine and radiation health to naval operating forces and activities."²³
- **Naval Ambulatory Care Center**
 "The Naval Ambulatory Care Center in Groton, Connecticut is an outpatient medical treatment facility that provides primary medical care and coordinates access to other levels of health care services for active duty, retirees and eligible family members entitled to care. Inpatient care and limited specialty care services are provided through a partnership agreement with local civilian hospitals."²⁴
- **The Naval Submarine Medical Research Laboratory**
 This command "constitutes the Navy's only submarine platform designated medical research and development laboratory dedicated to the unique problems engendered by the operational submarine fleet. This Laboratory maintains a library, which constitutes one of the most complete libraries of submarine and diving information in the world."²⁵
- **Naval Security Group Activity Groton**
 The "NSGA Groton provides cryptologic direct support systems installation, maintenance, and personnel augmentation support to U.S. Atlantic Fleet submarines."²⁶

- **Meteorology and Oceanography**

This command "provides meteorological support and services to local commands, and supports waterfront units with environmental services and products for training, underways, and deployments. The Component's website offers local and regional weather information, and updates on tropical cyclone warnings and base Conditions of Readiness status during hurricane season."²⁷

Recent Activity and Current Situation

The Sub Base has recently completed numerous infrastructure improvements. Approximately \$98.5 million in investments were made at the base in fiscal year 2004 and to date, an additional \$50 million has been awarded for improvements in fiscal year 2005. Major projects included: Barracks Renovation, renovation of Warehouse B-33, and the construction of the new Navy Lodge.²⁸

Lower Base

Improvements to the Lower Base include the conversion of Pier 17 North Conversion and Waterfront Re-capitalization efforts.²⁹

The Pier 17 North Conversion project is a \$1.4 million upgrade to pier 17 North to accommodate Virginia Class ships. Improvements to the pier include: new fendering, steel supports, electrical upgrades, jib cranes and bollards and mechanical systems. This project was 99% complete as of April 2005.³⁰

The Waterfront Re-capitalization Project includes a \$30 million upgrade to all Sub Base piers to accommodate Virginia Class. This project starts with the demolition of Piers 4, 6, and 13. A new pier will be built in the current area of Pier 6. As of April 2005 contracting was in final stages in Philadelphia. Work on this project is to commence in the summer of 2005.³¹

Maintenance dredging in areas between Pier 10, 12, and 13 as well as on the north and South sides of Pier 31 is to be completed in 2005.³²

SUBSCOL Campus

In February 2005 the DOD announced that M. A. Mortenson Co., of Minneapolis, Minnesota, is being awarded a \$13,167,000 contract for the construction of the new Mk10 Submarine Escape Trainer. It is anticipated that the ground breaking for the trainer will occur in August of 2005 and the project completed by May of 2007. This project provides approximately 22,800 SF of classrooms, mechanical, electrical, and other support space for the escape columns and escape hatches.³³

Upper Base

Improvements to the Upper Base include new security gates, a new dental clinic, a new facility for IBU-22, the renovation of the Naval Ambulatory Care Center and a new public private housing venture.³⁴

The new security gateway opened in November of 2004. The gate allows for four lanes of entering traffic under an 18-foot tall canopy and provides for commercial vehicle inspection at the gate rather than on the base. The project is phase one of a two-phase, \$6.5 million design and build project begun in 2003 by James N. Gray Company of Kentucky. The second phase, Gate 1 renovations, has just begun and should be completed by fall 2005.³⁵

The Navy Region Northeast and GMH Military Housing-Navy Northeast LLC entered into the Navy's newest and largest public-private venture (PPV) housing project in November of 2004 with the goal of providing quality and affordable housing for military families in the Northeast. The project privatized approximately 5,600 Navy homes spanning seven Naval installations, five states, and 13 communities. For the New London Naval Sub Base, some 2,100 existing Navy Family Housing homes have been turned over to GMH and many are part of a six year, \$300 million Initial Development Plan (IDP). Under the New London Naval Sub Base IDP, more than 1,000 old homes will be razed, and replaced by more than 900 new homes. Additionally 275 homes will be renovated. The groundbreaking ceremony for this project was held in February of 2005.³⁶

The Naval Sub Base, Submarine School And Various Tenant Commands

The co-location of the Sub Base with the Sub School and the various research and development tenant commands creates a synergistic effect that results in the "whole being greater than the sum of its parts." The close proximity of these entities results in the free flow of information and ideas that create greater operational efficiencies and enrich the educational environment.

The location of all of these functions in New London County also affords the base's naval personnel and their families access to the high quality of life available in southeastern Connecticut, including excellent schools, significant cultural and recreational amenities and, according to Salary.com, unmatched affordability.³⁷

The Groton location also fosters the close working relationship between the base and the Electric Boat Company. This relationship produces both tangible and intangible synergistic efficiencies that provide enumerable benefits to the Navy and to U.S. national defense.

The proximity of the Electric Boat Company's facility on the eastside along with the company's unique Quonset Point, R.I. construction facility give the base a distinct synergy for Navy production and operations. The Electric Boat Company has a variety of docks reserved for shipbuilding, refitting and repair along with barges, including berthing barges for the personnel of vessels undergoing refitting or repair. For a century, the Electric Boat Company has been at the forefront of submarine technological development and innovation.

IV. CONTRIBUTION OF THE NEW LONDON SUB BASE AND SCHOOL TO THE CONNECTICUT AND SOUTHEASTERN CONNECTICUT ECONOMIES

Scenario 1 illustrates the combined contributions of the Navy Base and Sub School complexes. Scenarios 2 and 3 show the independent contributions of each.

Table 3: REMI Model Results Summary for the New London Naval Sub Base and Sub School

REMI Model Results Summary Table						
Scenario	Gross State Product (\$ billions)	Personal Income (\$billions)	Direct Employment	Indirect Employment	State Revenues (\$ millions)	Local/Regional Revenues (\$ millions)
1	\$ 1.292	\$ 0.666	10,367	3,673	\$ 44.7	\$ 0.601
2	\$ 0.841	\$ 0.431	6,794	2,537	\$ 28.6	\$ 0.519
3	\$ 0.434	\$ 0.230	3,573	1,137	\$ 15.6	\$ 0.139

Note: Scenarios are not cumulative because they were run independently of each other within a dynamic model.

Table 4: RIMS II Model Results Summary for the New London Sub Base and School

RIMS II Model Results Summary Table				
Scenario	Gross State Product (\$billions)	Personal Income (\$billions)	Direct Employment	Indirect Employment
1	\$ 1.678	\$ 0.839	10,367	6,517
2	\$ 1.049	\$ 0.525	6,627	3,931
3	\$ 0.516	\$ 0.258	3,573	1,624

GSP is productivity (\$99,379) x Total Employment
 Personal Income is 1/2 GSP

The results of Table 4 largely confirm the REMI Policy Insight™ model results in Table 3. Scenario 3 (the School alone) has the smallest economic impact. The relatively modest variation in magnitude of the impacts under each methodology is mostly attributable to the averaging of multipliers across industries. What is notable is that the size and relative order in both methodologies is consistent.

In summary, the data indicate that the contribution of the combined New London Sub Base and Sub School to the state's economy is approximately \$1.3 billion in GSP and approximately 14,040 direct and indirect jobs.

V. THE ELECTRIC BOAT COMPANY

The Electric Boat Company is a subsidiary of the General Dynamics Corporation. The Electric Boat Company is part of General Dynamics' Marine Systems Group. The company's primary operations are the shipyard in Groton, Connecticut and the automated hull-fabrication and outfitting facility in Quonset Point, Rhode Island. The combined operations have a current workforce of approximately 11,300 employees. The company's Connecticut work force is currently 8,750 employees: 8,250 at the Groton shipyard and 500 on-site at the New London Naval Sub Base.³⁸ The Electric Boat Company's Groton shipyard is a 2.9 million square foot facility.³⁹

Overview⁴⁰

The U.S. Navy considers that Electric Boat, by virtue of its vast experience and innovation, is the world's premier resource for submarine technology. Electric Boat has maintained this position since designing the very first submarine for the U.S. Navy, HOLLAND, over one hundred years ago. The experience and innovation offered by Electric Boat has been, and remains, the dominating influence in development of nuclear powered submarines in this modern era.

The inherent strength of Electric Boat derives in great measure from its enduring dedication to one product, for one customer. Electric Boat designs, builds, and supports submarines for the U.S. Navy. This dedication means that submarine technology is Electric Boat's number one priority. Electric Boat is focused on what it does best, and only on what it does best. This dedication provides the U.S. Navy with the best submarines in the world.

Electric Boat designed the first nuclear submarine, NAUTILUS as well as the first strategic missile submarine, GEORGE WASHINGTON. Of the 19 nuclear submarine classes developed, Electric Boat designed 15, and shares design responsibility on one other, SEAWOLF, with Newport News. Electric Boat designed the nuclear propulsion plant in every submarine class, save one, and designed every single strategic missile submarine this nation has produced. Electric Boat pioneered the modular construction process, more than 20 years ago, and is now using the third generation improvement of this process on the Virginia Class and SSGN Programs

Of the 197 nuclear submarines delivered or under construction for the U.S. Navy, Electric Boat is responsible for 98. Six other shipyards are/were responsible for the remainder.

Electric Boat's design history and experience in building 16 lead ships in the nuclear era has produced a "world class" technology base in specialized areas such as propulsion plant design, structural acoustics, hydrodynamics, weapons handling, manufacturing, and modular construction.

Electric Boat's Groton shipyard occupies 118 acres along the Thames River in Groton, Connecticut supporting both new construction and maintenance activity.

New construction work centers around the Land Level Ship Construction Facility (LLSCF) built in the early 1970's to support the Trident ballistic missile submarine program. The LLSCF receives hull sections and modules from Quonset Point, assembles them into a completed submarine, and then positions the ship for float-off using electric/hydraulic transfer cars and a pontoon in the associated graving dock.

Two additional dry docks, piers and shops also support overhaul and repair activities for active submarines, primarily those assigned to the New London Naval Sub Base.

"COATS" stands for CCSM Off-hull Assembly and Test Site. The \$11.5M facility for land-based integration and test of Virginia Class combat system modules and electronic equipment at the Groton shipyard was dedicated in July, 1999.

COATS represents a shipyard industry first. The Combat System Module is: fully assembled off hull and populated with non-propulsion electronics equipment; provides for controlled testing of the combat system module without impacting hull construction; and provides friendly shock environment for commercial electronics. Once the COATS test phase completes, the CCSM module is transported to the ship for insertion and integration with ship and hull systems.

Final hull assembly is accomplished at the Groton Shipyard. The Land Level Ship Construction Facility (LLSCF) is capable of launching and dry-docking submarines weighing up to 17,500 tons, and can receive individual hull sections and units weighing up to 1,400 tons using the Sea Shuttle transporter.

The LLSCF provides a controlled environment for the accurate alignment and fit-up of hull sections and modules. A rail-tracked grid embedded in the facility, and electro-hydraulic transfer cars, enables sections or the entire ship to be moved about the facility. Overhead cranes and covered utility pits provide efficient support for final assembly and outfitting activity.

After launch, approximately one year prior to ship delivery, waterborne testing and sea trials take place. This period is used to groom and test the ship's systems, train the Navy crew in their operation and maintenance, and eventually turn over the completed systems and compartments to the Navy. Along with the various dock trials, acoustic trials, and weapons launch tests, propulsion plant tests, and other waterborne evolutions, the ship typically undergoes three sea trials before delivery to the Navy.

Current Business

Virginia Program⁴¹

The VIRGINIA Class submarine was designed by Electric Boat. It is the latest class of advanced capability fast attack submarines to be designed and delivered to the United States Navy. From its inception, the challenge of the VIRGINIA Program was to find the optimum balance between capability and affordability.

The VIRGINIA Class has been designed with reconfigurable spaces and features that make it adaptable and responsive to the changing and evolving threat. The VIRGINIA is the first naval combatant to be designed to meet the Post Cold War challenges of a new, uncertain threat environment – those conflicts in the near shore littoral environment. It supports seven critical post Cold War missions: covert intelligence, surveillance and reconnaissance (ISR); anti-submarine warfare; special forces warfare; precision strike warfare; anti-surface ship warfare; mine warfare; and provides support for Joint Forces.

The VIRGINIA Class Design/Build (Integrated Product and Process Development) contract was the first of its type for a DOD Cat 1 acquisition program. At the time of the contract award in January, 1996, Electric Boat, with no precedent to follow, worked hand-in-hand with the Navy

and led the development of new tools, processes and procedures, and trained shipyard workforce and oversight organizations to promulgate the required cultural change in the entire submarine enterprise. VIRGINIA literally has raised the performance bar for submarine technology and shipbuilding management and is providing the model for shipbuilding of the future. One indication of our success was when we received the Pentagon's David Packard Award for acquisition excellence. It was the first U.S. Navy warship to be designed using advanced computer-aided design and visualization technology that supports integrated design and manufacturing from a single product model database.

Each ship of the Class is being constructed by both General Dynamics Electric Boat in Groton, Connecticut and Quonset Point, Rhode Island, and by Northrop Grumman Newport News in Newport News, Virginia. Construction is being accomplished under a unique co-production teaming agreement whereby the construction of the ship's 18 major modules has been assigned to respective yards and the delivery of each ship is alternated between each yard. Today, the class design is complete and the program is in low rate production at one ship per year. Electric Boat is the prime contractor for the entire construction program.

On October 12, 2004, the Electric Boat Company delivered the lead ship, U.S.S VIRGINIA (SSN774), just 3.5 months from a contract delivery date established over ten years earlier. The lead VIRGINIA, SSN774 was the first Electric Boat Company submarine delivery in 6 years - - and the first lead ship in 7 years. The second ship, SSN775, will be the first NGNN submarine delivery in 8 years - and the first lead ship delivered by them in 28 years.

Seawolf⁴²

The SEAWOLF Program was designed to counter high performance Soviet submarines at the end of the Cold War. The need for a large number of SEAWOLF Class submarines was obviated by the collapse of the Soviet Union in 1989. Initially planned to be a 30 ship class, the program was reduced to three ships. The U.S.S JIMMY CARTER (SSN23) is the third and final SEAWOLF Class submarine. Following closely on the heels of the delivery of the U.S.S VIRGINIA, U.S.S JIMMY CARTER was delivered to the U.S. Navy on December 22, 2004. This marked the second delivery by Electric Boat in three months.

Differentiating the SSN23 from all other submarines is its Multi-Mission Platform (MMP), which includes a 100-foot, 2500-ton hull section that enhances payload capacity, enabling the ship to accommodate the advanced technology required to develop, test and deploy the next generation of weapons, sensors and undersea vehicles.

SSN23 MMP Design/Build program success has been unprecedented. Key to this success was the ability of experienced design and engineering personnel to roll off of VIRGINIA and immediately onto another major design program -- the MMP, a project as complex as the construction of an entire Los Angeles Class submarine. Beginning with a notion that was little more than a Power Point slide, Electric Boat moved from concept design, to completion of detail design in 29 months -- half the time historically needed to advance through this development cycle. Five months later, this unique 2,500-ton module was delivered to the Groton shipyard for assembly with the host ship.

SSGN⁴³

Electric Boat is also the prime contractor for the conversion of four Trident SSBN submarines to SSGN configuration taking place at the Norfolk Naval Shipyard and at Puget Sound Naval Shipyard. This effort leverages Electric Boat's experience as the designer and sole builder of

Trident SSBN submarines. Trident SSGN conversion will provide key capabilities for covert strike and clandestine Special Operations Force (SOF) missions.

The SSGN will provide up to 154 Vertical Launch Weapons from missile tubes previously housing ballistic missiles. Additionally, the SSGN will include an enhanced VIRGINIA Class communications suite and a dedicated command and control space for better mission planning. The platform will also be modified to host two Special Operating Forces lockout chambers using dual Dry Deck Shelters and/or Advanced SEAL Delivery Vehicles. The reconfigured ship will be able to house 66 SOF personnel and provide a dedicated SOF command and control planning center. SSGN will also function as an experimental test-bed to develop innovative operations concepts and payload/sensor alternatives for incorporation on future submarines. The large missile tubes inherent on this platform provide the volume to demonstrate and deploy non-traditional submarine payloads in an operational environment. The use of SSGN as a test bed for future capability to be included in future undersea systems forms the foundation for the transformation of the submarine force into the future.

Life Cycle Support, Maintenance and Modernization⁴⁴

Electric Boat provides centralized life-cycle support for U.S. Navy submarines and submersibles via an experienced design, construction and fleet support organization supporting all classes of submarines. Electric Boat provides on-site fleet support at Kings Bay, Bangor, Norfolk, Puget Sound, Groton and Portsmouth and fly away teams at other locations as requested. Support provided includes design, engineering, planning, maintenance, material procurement and installation services that directly support the safe and reliable operation of the U.S. submarine force.

Additionally, in 1998 the Electric Boat Company began re-establishing itself as a major depot level submarine maintenance, modernization and repair activity. Supporting that transition has been a robust engagement with NAVSEA, the Naval Shipyards and other field activities in the various initiatives supporting the Navy's ONE SHIPYARD concept. Fundamental to this engagement is Electric Boat's commitment to align its maintenance related processes with those of the Navy. Electric Boat is now performing depot level availabilities including Interim Dry Dockings (IDDs), Selected Restricted Availabilities (SRAs, Depot Modernization Periods (DMPs), and scheduled Pre-Inactivation Restricted Availabilities (PIRAs) of LOS ANGELES and SEAWOLF Class submarines in its Groton shipyard and at the Naval Submarine Base.

Much of the cost debate for naval ships has been focused on acquisition cost. A truer metric may in fact be total ownership, or total life cycle costs. Nuclear submarines inherently possess low total operating costs due to their minimal manning; and, they require no at-sea logistics train, no protective escorts, and little support infrastructure ashore. Today, technology advancements have led to the development of a life of the ship core, eliminating the need for major refueling overhauls on our attack submarines. On VIRGINIA, crew manning for at-sea operations, one of the key drivers of program life cycle cost, has been reduced by 12% from 134 to 118. In fact, on the VIRGINIA program, there has been a 30% reduction in total ownership cost from previous submarine classes.

Tango Bravo⁴⁵

The Tango Bravo Program is a collaborative effort between the Defense Advanced Research Projects Agency (DARPA) and the United States Navy to execute a technology demonstration program to break through the "technology barriers" and enable innovative design options for a

future submarine. This effort is also aimed at decreasing platform infrastructure and the cost of the design and production of that future ship.

In October 2004, Tango Bravo proposals were sought in five technology demonstration areas: (1) shaftless propulsion, (2) external weapons stow and launch, (3) hull adaptable sonar array, (4) radical ship infrastructure reduction, and (5) reduced crew/automated attack center. Electric Boat was notified in March 2005, that they had been selected for three Tango Bravo contract awards, subject to successful negotiations. The \$600 million programmed in the current Navy plan for an undersea superiority system could be used to advance these technologies and integrate them into a future VIRGINIA, or to start a design effort to produce a lower cost nuclear submarine. Combined, these technologies could lead to a complete re-architect of the submarine for the first time since the Nautilus. This new architecture could remove the constraints in present submarines imposed by the shaft line and torpedo room/torpedo tubes. The initiative also could provide for the insertion of new technologies to ensure submarine relevance in the future threat environment where it will deploy.

Spiral integration of these technologies, such as external weapons, could be developed in parallel with a new forward end. Shaftless propulsion, likewise, could become a design/build effort resulting in a new stern and engine room section. By continuing VIRGINIA production, ships of opportunity will provide an integrating platform.

Several studies have recently been conducted on future fleet architectures. All have recognized the enduring value of submarines for future naval operations. Furthermore, under all known force level scenarios, including the most recent Navy 30-Year Interim Report to Congress, procurement of 2 ships per year will be needed to maintain undersea superiority and replace the aging fleet of LOS ANGELES Class (SSN688 Class) attack submarines as they retire over the next several decades. The 30-Year report neglects to indicate a new SSBN/SSGN design will be needed in the next decade. Absent new design work, the submarine design industrial base will not be around to perform this effort.

Electric Boat/Naval Submarine Base Synergies⁴⁶

While there has been a relationship between the operational submarines at the New London Naval Sub Base and the ship designers and builders at Electric Boat Corporation ever since the arrival of the tender *Ozark* and her charges in October 1915, only in the last six years has the interdependence become essential to both facilities.

The Submarine Base and its tenant commands depend on Electric Boat to provide the skilled tradespersons, supervision, and engineering support required to perform most Intermediate-level maintenance on the ships stationed there. Similarly, Electric Boat needs the work on the submarines at the Base to maintain its skilled workforce above the "critical mass" level in the current submarine Low Rate Procurement (LRP) environment.

Carrying the Navy's Regional Maintenance concept one step further, the Electric Boat Company has entered into extremely successful partnerships with the New London Naval Sub Base and Portsmouth Naval Shipyard (PNSY). While some of the relationships and activities are cemented in contractual terms and conditions, it is the genuine spirit of co-operation and joint dedication to Fleet readiness, which is most significant. Several specific initiatives are discussed below.

New England Maintenance Manpower Initiative (NEMMI)⁴⁷

Starting in 1999, NEMMI has resulted in the phased transition of 431 non-submarine qualified military billets at the Naval Submarine Support Facility (NSSF) at the New London Naval Sub Base to 263 civilian Electric Boat Company shipyard employees. This has allowed non-submarine sailors to be reassigned to ships or stations other than at Groton, while the joint civilian / Navy workforce at NSSF still provides quality shore billets for submarine-qualified sailors. The Electric Boat Company is also now providing the equivalent of 4 divers to assist the Navy dive team.

The integrated workforce is responsible to Commanding Officer, NSSF for work completion and certification, but can draw on the resources of Electric Boat for surge capacity or unique skills and capabilities. Currently, the average Electric Boat Company journeymen at NSSF has over 24 years of shipbuilding experience - - a tremendous training environment for the assigned sailors.

Nuclear Regional Maintenance Department (NRMD)⁴⁸

Implemented in March 2001, the Electric Boat Company is managing the New London Naval Sub Base nuclear repair work with a combined Electric Boat Company / military team. The Electric Boat Company provides a core staff of 27 responsible for planning and execution of work under the Electric Boat Company's nuclear license, and coordinates the activities of the 76 assigned military personnel.

The permanently assigned workforce is augmented as needed from the Electric Boat Company Groton shipyard to support major evolutions or periods of high workload. It is not uncommon to have 100 additional Electric Boat Company workers supporting NRMD activities. All assigned military and civilian personnel report to Electric Boat Company supervision.

Thames River Drydocks⁴⁷

Prior to 2001, there were two floating drydocks at the New London Naval Sub Base, which supported short-term and emergent repair periods on the ships assigned to Groton. In addition, Electric Boat had three graving docks, which were needed to support the Cold War submarine production rate of up to three attack and one ballistic missile submarine per year. However, as the Electric Boat Company shifted to low rate production in the mid-90s, these three docks were significantly under-utilized.

In August 2001, the Navy inactivated the floating drydock Oak Ridge (ARDM-1) at the New London Naval Sub Base, avoiding the expense of an upcoming major overhaul of the 1944 vintage drydock. This left insufficient Navy drydock capacity for the volume of work. As a result, in February 2002 the Navy leased the use of one of the Electric Boat Company's drydocks. The dockings at the Electric Boat Company carried out to date under this contract have utilized New London Naval Sub Base, Electric Boat Company, Portsmouth Naval Shipyard, and other contractor personnel all working together to provide the best and quickest maintenance service. Due to the present high volume of maintenance work contracted directly to Electric Boat, this lease is not currently in effect, but can be resumed should the Navy require the asset.

This cooperative arrangement was carried a step further in July 2002, when the Electric Boat Company and the Navy entered into a Government-Owned / Contractor-Operated (GOCO) contract for the Electric Boat Company to maintain and operate Shipping Port (ARDM-4), the remaining Navy floating drydock at the New London Naval Sub Base. Thirty-six core Electric

Boat Company personnel reporting to Electric Boat Company supervision maintain and operate the Shipping Port on a day-to-day basis, while surge personnel from the shipyard support docking evolutions. The utilization rate for Shipping Port has been extremely high, with the 12 dockings to date resulting in a ship in dock over 75 percent of the time in FY03 and FY04, and a projected occupancy rate of over 90 percent in FY05.

Naval Submarine Base New London and Electric Boat Corporation⁴⁸

The net result of these actions - - NEMMI, NRMD, and Drydocks - - is a balanced, flexible asset pool, which provides maximum service to the Fleet at minimum cost, while still supporting the construction of nuclear submarines. The number of sailors required has been dramatically reduced, there is more efficient utilization of facilities, the Navy has quick access to the capability and capacity resident at the Electric Boat Company, and critical skills are being maintained in the Electric Boat Company workforce.

In a recent statement issued by John P. Casey, President of the Electric Boat Company to the Commissioner of DECD, Mr. Casey remarked, "*We have stated publicly on numerous occasions that Electric Boat fully intends to remain in business. We have a significant backlog with the Virginia Class submarine program as well as design and engineering work associated with a variety of Navy programs. We would be a somewhat different business if the Base were to be lost, however, we expect to remain the Navy's preferred provider of nuclear submarine capability.*"⁴⁹

The Navy's submarine base in Groton, Connecticut, and Electric Boat, within short commuting distances of each other, work closely together to maintain the Navy's nuclear submarine force. This partnership is significant and can support not only scheduled routine maintenance and modernization, but also emergent or unscheduled work requiring technical expertise, depot level capabilities and a skilled resource-pool to accommodate surge requirements. The complementary Sub Base/Electric Boat Company relationship affords the Government savings as well as efficiency and skilled resource flexibility, creating a synergy that is critical to the Navy and national defense.

VI. CONTRIBUTION OF THE ELECTRIC BOAT COMPANY TO THE CONNECTICUT AND SOUTHEASTERN CONNECTICUT ECONOMIES

The Electric Boat Company is also a critical part of the Connecticut and Southeastern Connecticut economies.

The Electric Boat Company in total represents approximately 17,458 jobs in Connecticut. "Direct" employment is 8,250. There are 500 more contractors working for the Electric Boat Company that are located onsite at the New London Naval Sub Base, for a total Connecticut job count of 8,750. Including these 500, there are a total of approximately 9,208 "indirect" (spin-off) jobs. However, the Electric Boat Company, in close proximity to the Sub Base and Sub School, is ultimately the source of employment for a total of 1,000 contractors in Connecticut's economy (500 at the base and 500 in "all industries" in work related to the Electric Boat Company and the base).

Moreover, the Electric Boat Company's annual average contribution to GSP is approximately \$2.0 billion. GSP is the single most comprehensive statistic, other than the number of direct and indirect jobs. It measures the final product and services produced in the state in any given year. Even beyond these economic facts, the Electric Boat Company has a long and proud history of contribution to Connecticut.

Scenarios 6 and 7 measure the separate impact of Electric Boat alone and the contribution of a portion (in this case 1/2) of the current level of EB activity alone.

Table 3: REMI Model Results Summary for the Electric Boat Company

REMI Model Results Summary Table						
Scenario	Gross State Product (\$ billions)	Personal Income (\$billions)	Direct Employment	Indirect Employment	State Revenues (\$ millions)	Local/Regional Revenues (\$ millions)
6	\$ 1.968	\$ 1.253	8,250	9,208	\$ 117.6	\$ 6.398
7	\$ 1.001	\$ 0.632	4,125	4,672	\$ 59.8	\$ 3.505

Table 4: RIMS II Model Results Summary for the Electric Boat Company

RIMS II Model Results Summary Table				
Scenario	Gross State Product (\$billions)	Personal Income (\$billions)	Direct Employment	Indirect Employment
6	\$ 1.549	\$ 0.775	8,250	7,341
7	\$ 0.775	\$ 0.388	4,125	3,671
GSP is productivity (\$99,379) x Total Employment Personal Income is 1/2 GSP				

VII. THE CONTRIBUTIONS OF THE NEW LONDON NAVAL SUB BASE, SUB SCHOOL AND THE ELECTRIC BOAT COMPANY TO THE ECONOMIES OF CONNECTICUT AND SOUTHEASTERN CONNECTICUT

Scenario 4 -- the single largest impact of all seven simulations -- dramatically demonstrates the enormous impact of the Navy Base and Sub School, combined with the Electric Boat Company. Scenario 5 shows the impact of the Navy Base and School together with a reduced (by 1/2) level of activity at the Electric Boat Company.

Table 5: REMI Model Results Summary for the New London Naval Sub Base, Sub School and the Electric Boat Company

REMI Model Results Summary Table						
Scenario	Gross State Product (\$ billions)	Personal Income (\$billions)	Direct Employment	Indirect Employment	State Revenues (\$ millions)	Local/Regional Revenues (\$ millions)
4	\$ 3.253	\$ 1.982	18,617	12,881	\$ 162.2	\$ 5.764
5	\$ 2.299	\$ 1.301	14,492	8,407	\$ 104.9	\$ 2.922

Table 6: RIMS II Model Results Summary for the New London Naval Sub Base, Sub School and the Electric Boat Company

RIMS II Model Results Summary Table				
Scenario	Gross State Product (\$billions)	Personal Income (\$billions)	Direct Employment	Indirect Employment
4	\$ 3.368	\$ 1.684	18,617	15,275
5	\$ 2.622	\$ 1.311	14,492	11,890

GSP is productivity (\$99,379) x Total Employment
 Personal Income is 1/2 GSP

In summary, the data indicates that the joint contribution to the state's economy of the Sub Base, Sub School, and the Electric Boat Company is approximately \$3.3 billion in GSP and approximately 31,500 direct and indirect jobs.

VIII. BASE REALIGNMENT AND CLOSURE

In November of 2002, Secretary of Defense, Donald Rumsfeld stated, "Congress authorized a base realignment and closure [BRAC] round in 2005. At a minimum, BRAC 2005 must eliminate excess physical capacity; the operation, sustainment, and recapitalization of which diverts scarce resources from defense capability. However, BRAC 2005 can make an even more profound contribution to transforming the Department by rationalizing our infrastructure with defense strategy. BRAC 2005 should be the means by which we reconfigure our current infrastructure into one in which operational capacity maximizes both warfighting capability and efficiency."⁵⁰

The DOD is in the process of selecting military installations within the United States for either closure or realignment. The process begins with the preparation of a list of installations to be closed or realigned by the DOD. The DOD must follow a proscribed set of criteria when deciding what installations to close or realign (see below).

Once the list has been prepared, the Secretary of Defense must submit it to the congressional defense committees and the BRAC Commission. This is scheduled to occur on or about May 13, 2005. The General Accounting Office must then prepare and submit a report to defense committees on its analysis of the DOD BRAC process and recommendations. This is scheduled to occur by July 1, 2005. The BRAC Commission then will prepare and submit its recommendations to the President. This is scheduled to occur by September 8, 2005. The President must either approve or disapprove the Commission's recommendations in their entirety. If approved, the recommendations are sent to Congress, which has 45 days or until the adjournment of Congress to disapprove the recommendations on an all-or-none basis; otherwise, they become binding. The President is scheduled to either approve or disapprove the list by September 23, 2005. If the President disapproves the list, the Commission has until October 20, 2005 to consider the President's objections and to send a revised report back to the President. If the President had rejected original recommendations, he must forward the revised Commission recommendations to the Congress by November 7, 2005.

Closure and Realignment Criteria

In selecting military installations for closure or realignment, the DOD, giving priority consideration to military value (the first four criteria below), will consider:⁵¹

Military Value

1. The current and future mission capabilities and impact on operations readiness of the total force of the DOD, including the impact on joint warfighting, training and readiness.
2. The availability and condition of land, facilities, and associated airspace (including training areas suitable for maneuver by ground, naval, or air forces throughout a diversity of climate and terrain areas for the use of the Armed Forces in homeland defense missions) at both existing and potential receiving locations.
3. The ability to accommodate contingency, mobilization, surge and future total force requirements at both existing and potential receiving locations to support operations and training.
4. The cost of operations and the manpower implications.

Other Considerations

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 costs.
6. The economic impact on existing communities in the vicinity of military installations.
7. The ability of the infrastructure of both the existing and potential receiving communities to support forces, missions and personnel.
8. The environmental impact, including the impact of costs related to potential environmental restoration, waste management and environmental compliance activities.

The DOD will use the aforementioned selection criteria along with their force-structure plan and infrastructure inventory to make recommendations for the closure or realignment of military installations inside the United States. The 2005 BRAC Commission will also use these criteria for their review of the DOD's final recommendations.

BRAC and the New London Naval Sub Base

The New London Naval Sub Base is subject to the BRAC process, as are all domestic military installations. Connecticut has cause to be concerned as the New London Sub base was considered for closing in previous BRAC rounds and competition for location or realignment of base operations is likely from a number of sites. In particular, Norfolk, Virginia is the home of the Norfolk Naval Station and other Navy facilities and commands. Together they are, by far, the largest naval presence on the east coast. The Atlantic Fleet is based there, as is the Commander Naval Submarine Forces. Two submarine squadrons, attached to New London base Sub Group 2, are based in Norfolk.

In 1988 a nonpartisan commission proposed to close 86 military installations entirely, partially close five others, and realign 54 more. In 1989, Congress adopted these recommendations. In 1991, to increase public comment on the 1988 round of closings, Congress approved the National Defense Authorization Act of 1991 (P.L. 101-501), creating an independent Commission on Base Realignments and Closures (BRAC) and calling for three more rounds of closures in 1991, 1993, and 1995. As the New London Sub Base was among the bases slated for closure, a Sub Base Realignment Coalition was established to prevent the closure. The then Department of Economic Development (DED), working in partnership with the Coalition, initiated a series of actions in order to assess the potential for economic disruption in the communities of New London County.

The President rejected the proposed base closure in 1993. However, in 1995, the Navy successfully recommended to close the Naval Undersea Warfare Center, New London Laboratory and transfer the Nuclear Training School from Groton to South Carolina.

Contribution Implications in Light of the Current Round of Base Realignments and Closures.

The DOD is currently in the process of preparing its recommendations for the closure and realignment of existing U.S. military installations. These recommendations will be forwarded to the Base Realignment and Closure Commission (Commission) on or about May 16, 2005. Based on the DOD report the Commission will prepare its own recommendations. The

Commission will then forward their recommendations to the President. If approved by the President the recommendations will be forwarded to Congress where a joint resolution would be required to vote down the entire list, otherwise is automatically approved.

The state has reason for concern, as the New London Naval Sub Base appeared on the base closure list in previous BRAC rounds.

In light of the possibility of a closure of the New London Naval Sub Base, it is important to examine the economic consequences associated with a closure of the facility. The close physical proximity of the sub base and the Electric Boat Company provide enormous benefits to both entities in the development, construction and maintenance of submarines.

As such, the closure of the New London Sub Base would have the effect of eliminating from the local and state economies one of the largest employers in the county and the state and reduce the workload of the Electric Boat Company.

The effect of the closure of the New London Naval Sub Base would be an annual loss to the Connecticut and Southeastern Connecticut economies of approximately \$1.3 billion in GSP and approximately 14,040 direct and indirect jobs. A loss of this magnitude would be disastrous for Southeastern Connecticut and certainly a heavy blow to Connecticut's overall economy.

IX. STUDY METHODOLOGY

Any economic impact analysis must quantify the overall effects (for example, changes in output, employment, income, tax revenue) resulting from a policy or economic shock.

In this case, the methodology should take into account not only the impact of the personnel at the Navy Sub Base in Groton but also the jobs at the neighboring shipbuilding plant at the Electric Boat Company. If the Navy Base were to close, it would have severe implications for the company. The following scenarios were modeled:

1. The contributions of the New London Naval Sub Base and Naval Sub School.
 - Reduce military employment by 7,800⁵²
 - Reduce civilian employment by 1,400⁵³
 - Reduce contractors by 1,000⁵⁴ (500 at the base^ψ, 500 in all industries*⁵⁶)
 - Reduce Reserve Center Employment by 167^Ω.⁵⁷
 - \$50.3 million loss of local construction industry sales in 2005⁵⁸
2. The contributions of the New London Naval Sub Base.
 - Reduce military employment by 5,427
 - Reduce civilian employment by 700
 - Reduce contractors by 500 at the base
 - \$50.3 million loss of local construction industry sales in 2005
3. The contribution of the Naval Sub School.
 - Reduce military employment by 2,373
 - Reduce civilian employment 700
 - Reduce contractors by 500 in all industries
4. The contribution of the New London Naval Sub Base, Naval Sub School, and the Electric Boat Company.
 - Reduce military employment by 7,800
 - Reduce civilian employment by 1,400
 - Reduce contractors by 1,000 (500 at the base^ψ, 500 in all industries*)
 - Reduce Reserve Center military employment by 167^Ω
 - \$50.3 million loss of local construction industry sales in 2005
 - Reduce firm employment in Rest of Transportation Equipment by 8,250⁵⁹
5. The contribution of the New London Naval Sub Base, Naval Sub School, and the Electric Boat Company (with reduced activity).
 - Reduce military employment by 7800
 - Reduce civilian employment by 1,400
 - Reduce contractors by 1,000 (500 at the base^ψ, 500 in all industries*)
 - Reduce Reserve Center military employment by 167^Ω
 - \$50.3 million loss of local construction industry sales in 2005
 - Reduce firm employment in Rest of Transportation Equipment by 4,125
6. The contribution of the Electric Boat Company.
 - Reduce firm employment in Rest of Transportation Equipment by 8,250

7. The contribution of the Electric Boat Company (with reduced activity).

- Reduce firm employment in Rest of Transportation Equipment by [1/2] 4,125

* Allocated according to the each industry's share of input required to produce \$1 of federal military purchases.

ψ Modeled as "rest of transportation equipment" employment (includes submarines).

⁹ 650 drilling reservists were converted to 167 full time equivalents for modeling purposes.

For each of these scenarios, two different economic models are employed for this methodology. The two models are described next to show their different approaches to the measurement of economic impacts. Each has its strengths and weaknesses. Both methods will be employed for the purposes of comparing the size and direction of the expected change in direct and ripple effects on jobs, gross regional product, and income.

Regional Economic Models, Inc.'s (REMI's) Policy Insight™ model is a widely known and internationally applied econometric model. REMI has an underlying baseline or control forecast against which a simulation forecast is run and the differences show the magnitude of the resulting impact. In the model businesses produce goods and services to sell to other firms, consumers, investors, and government using such intermediate goods as labor, capital, and fuel. Population determines the labor supply. Together the demand and supply of labor determine wages. People will move into an area in part if wages go up. Businesses will also substitute capital for labor if wages are higher. Changes in wages in turn impact incomes and that influences consumer spending. The model takes into account these kinds of interactions in the behavior of households and firms. REMI is a dynamic model allowing inputs over a single year or multiple year periods and forecasting results for each year up until 2035 if desired.

Certain key results of the model allow the user to quantify the impact of many differing economic changes that the user may want to introduce, such as the entry or departure of a firm, or in this particular case, the loss of a sub base and accompanying major sub-supplier/employer. The methodology simulates the interaction of many variables simultaneously.

An alternative methodology is the U.S. Bureau of Economic Analysis (BEA) RIMS II model that relies on published "multipliers" (for employment, output, and earnings). BEA's methodology can be used to verify the validity of other methodological approaches, but it is much less sophisticated in that it simply considers the *direct* effect to be the initial injection (or shock to the economy), and the combined *indirect* and *induced* effects to be this value times the multiplier minus one.

Direct impacts are defined as anything that is an immediate consequence of sub-base economic activity. This may include the activities of the Navy, federal civilian employees, payroll to Navy officers and others with a direct involvement in sub base operations. These entities may be located either on- or off-site. Employing labor in daily base operations and federal government capital investments in sub base construction are examples of sub base activities that generate direct impacts.

Indirect impacts are derived from economic activities of primarily off-site enterprises that serve the sub base, e.g. non-defense service providers such as fuel, fabricated metal, food and beverages, other raw materials that support sub base activity. Indirect effects result from

sub base operations and otherwise might not occur at the location under analysis, but are auxiliary to the main operations.

Induced impacts measure the effects of successive rounds of spending from the direct and indirect impacts. An example of an induced impact is a local merchant going out to the movies or to dinner because of income earned from Navy personnel spending in his or her business. Dependents of military personnel can be an important determinant of this impact as their expenditures can be significant to the local economy. These rounds of expenditures induce more local jobs and income in the general economy of the surrounding local area to the extent that such goods and services are locally produced. Only the purchases of locally produced goods and services are relevant to this analysis. For example, a household hiring a local carpenter to construct a garage is local spending. The purchase of a bicycle made in another state or foreign country is not local but rather an import from outside the region.

Finally, DECD was not concerned with separating the induced from the indirect impacts in this study. All of the effect above the multiplier minus one represents the *combined* indirect and *induced* effects.

Consistent with past studies, this study estimates four measures of economic impact:

- **Value added:** new output created within the region resulting when input supplies and materials are processed by labor to produce a product or service. The model result's "gross regional product" represents this concept.
- **Payroll:** a component of value added, representing the payment for the labor involved in creating new output.
- **Employment:** the number of jobs required to create new output.
- **Net New State and Local Tax Revenue:** New revenues minus new expenditures.

Measurement Tools Used in This Study

As indicated earlier, to generate the aforementioned measurements DECD employed two different types of models, REMI's Policy Insight and BEA's RIMS II. By using two different approaches DECD can pool the collective strengths of both while compensating for their individual weaknesses. Briefly, REMI provides a more robust and comprehensive picture of the New London Naval Sub Base and the Electric Boat Company's relationship to the economy, while RIMS II is a more common approach that may allow for comparison to similar studies done for military bases that used RIMS II multipliers and inter-industry relationships.

RIMS II

The U.S. Bureau of Economic Analysis (BEA) Regional Input-Output Modeling System (RIMS) is a frequently used method of estimating economic impacts. The system was developed in the 1970's to answer the call for greater quantification of social benefits in economic terms. For example, the precise dollar value of clean air, good health, highway safety, and recreation associated with reservoir construction, etc. was rarely quantified. Benefit/cost analysis was developed in part to answer that need. RIMS II is the updated version of this kind of quantification but of direct and indirect economic effects. The approach focuses on inter-industry relationships and regional multipliers using data specific to Connecticut's economy.

Application of RIMS II – The Multiplier Approach

The RIMS II multiplier approach to economic impact analysis is fairly straightforward. Depending on the nature of the primary input data available, one can use multipliers in any one of three categories: earnings, output, or employment. Therefore, if the user knows what the payroll for a given project will be, but not the related investment, the earnings multiplier can be used to measure total economic impact. Alternatively, if only the sales are known, an output multiplier can be used to estimate total impact. Finally, if only employment is known, total employment impact can be measured using the employment multiplier. The user should be cautioned however, that total economic impact *is not* the sum of all three. Each is a different and alternative concept of impact and stands on its own. The availability of three multipliers allows the project impact to be viewed from three different perspectives.

Thus we have the following possible relationships:

$$(\text{Direct Change in Employment}) \times \text{Employment Multiplier} = \text{Total Employment Impact}$$

OR

$$(\text{Direct Change in Earnings}) \times \text{Earnings Multiplier} = \text{Total Earnings Impact}$$

OR

$$(\text{Direct Change in Output}) \times \text{Output Multiplier} = \text{Total Output Impact}$$

The BEA's multipliers are based on the principle that every industry sector of the economy uses inputs from and sells output to all other industry sectors to varying degrees. Thus the input-output relationship (a national table) plays a key role in the value of the individual industry multipliers, and it can be important to know exactly what industries are involved in any given project.

Likewise, the combined indirect and induced effects are the product of the direct change times the fraction that the multiplier is above (or below) 1.00. For example, an output multiplier of 1.7 means that the indirect effects are:

$$(\text{Direct Change in Output}) \times (.7) = (\text{Combined Indirect and Induced Effect})$$

In this example, a direct change in output (say from a \$1.0 million injection of federal defense dollars) has a total output effect on the economy of \$1.7 million, or \$1.0 million directly and \$0.7 as a result of indirect and induced spending.

One limitation of the RIMS II multiplier approach is that the result is for a single point in time (i.e. a snapshot), not over a period of time. The issue for the analysis of the Sub Base and Electric Boat is that policy decisions made today have future consequences. It is often preferred to look at the effects of an economic change over a ten or twenty year horizon as some variables are affected differently over time.

REMI

A dynamic tool for assessing economic impacts is Regional Economic Models, Inc. (REMI) Policy Insight™ model. REMI has provided modeling tools to government organizations (of all levels) and private consultants for over 20 years. Its economic model, Policy Insight, has

at its core an input-output component in order to capture the supply relationships between firms. Built onto this are simultaneously estimated systems of econometric equations for five major inter-linked "blocks," namely Demographic, Labor and Capital Demand, Market Shares, Wages-Prices-Production Costs, and Output. Incorporating the latest in economic theory, allowing the user to enter data in multiple years, and forecasting for multiple years the future value of dozens of economic and demographic variables, the REMI model provides a rich array of results. A forecast horizon that may reach from the present to 2035 can be selected depending on the user's preference.

In sum, there are many other reasons why the REMI model is a suitable and preferred tool of analysis, such as the users ability to use multiple inputs, multiple forecast variables as well as the models sophisticated variable interactions, its dynamic (rather than static or "snapshot") feature, its basis in economic theory, and the model's incorporation of a sufficient number of the variables that are likely to change in a counterfactual simulation used to estimate the contribution of a sub base to its host community and state economy. The REMI Policy Insight™ model has been tested and proven successful in a numerous range of applications.

Application of REMI to Military Base Installations

The REMI model is highly sophisticated and extremely adaptable, yet its complexity may pose some initial user questions because of the thousands of policy variables from which the user is able choose. The user must make some key decisions even before running any simulations. Among these would be: What are the most important input variables, and why? Is such data available? What are the likely sources? How will the input data enter the model (e.g. as changes in employment or as changes in investment) and for what period of time?

A strong precedent established by other studies and all previous studies of the New London Naval Sub Base without exception is the choice of employment as the "key driver variable." Based on findings in other military studies that employment makes the largest contribution to changes in the economy as well as frequent REMI recommendations, this application will use Navy and civilian employment as key inputs. Military employees also have dependents that may be part of the labor force by holding jobs in the local goods producing or services producing sectors. Their presence in the labor market and their local purchases are potentially significant contributors to the regional economic impact. This makes a strong case for the use of two primary driver input variables here: federal civilian government employment and federal military government employment.

Another user might have reasoned that "investment" (federal capital spending) at the sub base is an appropriate input variable and let employment adjust itself endogenously in the model since the REMI model "automatically" accounts for changes in employment associated with changes in investment. The REMI model has the powerful capability of forecasting both the interaction and the long-term consequences of major employment changes as a result of other industries' capital spending. The model does not automatically estimate employment associated with government spending, however, because government spending is instead a function of population. However, government spending can still be taken into account in the model as "sales" in the industries in which the spending occurs, provided expenditures by major industry category can be made available for this study.

Composition and Availability of Data

All scenarios:

Federal Civilian Government Employment (number) -- Federal government employment in a local area is a fixed proportion of government employment in the nation. The Civilian Employment (number) policy variable changes the level of local employment in the federal civilian sector by the amount entered. Civilian and Military employment are distinct variables and so must be entered separately. Data on each is required separately. This policy variable is located under Labor and Capital Demand Block, Employment in the policy variable hierarchy.

Federal Military Government Employment (number) – Federal government employment in a local area is a fixed proportion of government employment in the nation. The Military Employment (number) policy variable changes the level of local employment in the federal military sector by the amount entered. Civilian and Military employment are distinct variables and so must be entered separately. This policy variable is located under Labor and Capital Demand Block, Employment in the policy variable hierarchy.

Government Spending (amount) – This captures state and local expenditures that result in direct payments for goods and services. In the absence of any better data it may be possible to use Navy defense expenditures in Connecticut as a proxy for private investment spending.

Industry Sales (amount) – Subcategories of total federal outlays related to the New London Naval Sub Base operations spending and capital spending by major industry (e.g. utilities, construction, food, fuel, machinery, transportation services, maintenance and repair, capital projects, etc.) for a typical year. [In the RIMS II modeling, this will be the basis of the Total Output Impact. If individual industry data are unavailable, U.S. spending for the Navy from the DOD Directorate for Information on contract awards will be used as a proxy.]

Electric Boat Company scenarios:

Transportation Industry (SIC 37) Employment (number) – This input variable will be used in the scenario with the loss of Electric Boat in addition to the closing of the New London Naval Sub Base (i.e. a “worst case” scenario) It will be a count of the job loss at EB. [In the RIMS II modeling, this will be the basis of the Total Employment Impact.]

Data Sources

Quantification of economic impacts requires input data from a number of sources:

- *U.S. Department of Defense (DOD)*

Federal civilian and federal military government spending by major industry category are needed. Operational spending and capital spending data for a typical year will be requested and allocated to the model's Government Spending and Industry Sales policy variables by category as available.

- *New England Economic Partnership (NEEP)*

NEEP is a consortium of academic, private sector, government, and banking institutions in the six New England states that for the last 30 years has produced (with the assistance of a national forecasting consultant) six proprietary semi annual state and a regional New England-wide forecasts. NEEP confirms the following: 8,200 Navy personnel, 1,400 civilian workers and 1,000 contractors employed by the Groton facility.

- *Bureau of Economic Analysis (BEA)*

BEA provides the RIMS II multipliers being used for estimating economic impacts as an alternative check on the REMI forecast.

- *Bureau of Labor Statistics (BLS)*

The BLS is the source of many of the REMI model's control forecast variables.

- *Census*

Census is the primary demographic data source in the REMI model's control forecast.

- *The Electric Boat Company*

The company's Connecticut employment is 8,750, 500 of which are located on-site at the New London Naval Sub Base.

- *Sub Base Realignment Coalition*

A regional group of political, economic, development, state and local officials whose mission is to build the best possible case for retention of the Sub Base as an integral and significant contributor to the economy. They provided preliminary and supplemental data as it became available to them.

Interpreting Results

Using the REMI model produces results data about the effect of the Sub Base and the Electric Boat Company on the Connecticut and southeastern Connecticut economies. The economic concepts below are among the major results presented in this study and represent the major variables used to assess the overall economic contribution made by the Sub Base and the Electric Boat Company.

Employment – Employment represents one of the most tangible aspects of the military installation to the area, namely full-time jobs for a given year. Employment is one measure of the benefit of the base and can be used to compare this facility to other military base facilities.

Aggregate Personal Income – The total of all income to labor, owners of capital (proprietors' income), and entrepreneurs for their contribution to the production of output. It is a typical measure of the standard of living to the region's population. Higher aggregate personal

X. BIBLIOGRAPHY

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Member of a Statewide coalition of environmental groups - PASC



Presentation to the
Base Closure and Realignment Commission

June 1, 2005

Economic Impacts

Loss of the Sub Base to CT:

- 14,040 direct jobs and indirect jobs.
- \$1.3 billion to Connecticut's GSP annually.
- \$44.7 million in net new revenue to the state annually.

If Electric Boat were to relocate, the numbers increase to:

- 31,500 direct and indirect jobs.
- \$3.3 billion in GSP annually.
- \$162.3 million in net new state revenue annually.

The costs to reproduce the needed infrastructure (hospitals, schools, housing, utilities, etc.) elsewhere will be borne by federal, state, and local taxpayers.

The needed infrastructure currently exists in Connecticut!

Cost to Employers

- If 5,600 civilian workers lose their jobs as a result of the base closure:
 - \$28 million in additional unemployment payments would be paid by Connecticut employers.
 - For each job lost, Connecticut employers would have to pay about \$5,000 into the Unemployment Fund.

Environmental Status

Current Site Features:

- The distance from the sub base to Long Island Sound is straight and short, and provides direct access to major trans-Atlantic and coastal sea lanes.
- Its location up-river provides protection during storms, with hurricanes and tropical storms occurring less frequently than in the southeast.
- The Thames River has a channel depth of 40 feet and is free flowing and non-sedimenting (which eliminates the need for frequent dredging).

Environmental Status

Contamination Status:

- Approximately 29 known areas of environmental concern.
 - 14 sites have been remediated to date.
 - 13 sites need further investigation/remediation.
 - 2 sites need to be remediated.

- Numerous authorized water discharges and underground storage tanks and a licensed RCRA (hazardous waste treatment, storage, disposal) facility.

- Contaminated groundwater is not a drinking water issue (base is on public water supply system).

Environmental Status

Base Closure Issues:

- Additional information and clean-up will be required for transfer and redevelopment, potentially including some radiological remediation.
- Base has superior environmental compliance record and an excellent working relationship with state and federal environmental regulators, including sophisticated experts in nuclear facilities and radioactive waste management.

Transportation Infrastructure

Groton, CT Norfolk, VA Kings Bay, GA

- Highway:
 - Of the three, Groton has the closest access to I-95. The annual cost of traffic congestion/delay in Groton is approximately 25% to 33% that of the other facilities when analyzing their respective regions.

- Rail:
 - Groton is served by Amtrak’s Northeast Corridor service as well as Connecticut’s Shoreline East Commuter Rail. A freight line also passes through the base.

Transportation Infrastructure

Groton, CT Norfolk, VA Kings Bay, GA

- Airport:
 - Groton’s travelers and businesses have a choice of two major medium hub commercial airports – Bradley in Connecticut and T.F. Green in Rhode Island. The Groton-New London airport, although smaller, is also federally certified to serve commercial air carriers and frequently handles military aircraft.
- Waterways:
 - Channel navigation to and from the sub base affords open water access within 20 miles and is the most strategically aligned for Atlantic operations.

Workforce Competitiveness

Jobs

- From 1992 to 2002, the Brunswick, GA metro area gained 6,900 jobs. During that same time period, the Norwich-New London area gained over 25,000.

Educational Attainment

- In 2004 more than 26% of the population (25 years or older) in New London County, CT had at least a bachelor's degree compared with less than 16% in Camden County, GA.
- New London County is the home to six higher education institutions versus one community college in Camden County.

Childcare

- Kings Bay has 5 accredited daycare centers within the base living area; New London has 31.

Homeland Security Concerns

- Because of the sub base and the other critical assets in the area there continues to be a need for security in the area.
- The unannounced routines of the submarines and their patrols of the Atlantic Ocean, Long Island Sound and the Thames River are a very strong deterrent to maritime terrorist attacks.
- The sub base also provides fire and HAZMAT support for the entire southeastern Connecticut region.
- Without the presence of the sub base, critical assets in the area will be left unprotected (U.S. Coast Guard Academy, Millstone Nuclear Power Station, Amerada Hess Fuel, Electric Boat Co. and others).



**BRAC COMMISSION/NAVY HEARING
MAY 17, 2005**

"We wanted to ensure that all bases were treated equally. In that regard, we sought to look at everything in a **fair and objective** way, as required by law. There were **no pre-decisions** in this process. And we sought to obtain like data for like types of installations so that we could **compare them fairly.**"

Hearing Transcript, Pages 4, and 5



SERIOUS QUESTIONS ON THE CALCULATION OF MILITARY VALUE

- Military Value Of SUBASE New London Understated
- Indications Of Pre-decisions And Bias
- Some Bases Received Exemptions

> *State to call / CBRM memo -*

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

SUBASE NEW LONDON:	18 SSNs and NR-1 10,000 Personnel (approx.) Naval Submarine Support Facility Naval Submarine School Regional Commander Headquarters
SUBASE KINGS BAY:	5 (9/05: 4) SSBNs 3,500 Personnel (approx.) Trident Refit/Training Facilities
SUBASE SAN DIEGO:	6 SSNs 1,500 Personnel (approx.) <i>SMA</i> Submarine Training Center Detachment

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

Military Value Scoring-Surface-Subsurface Function

<u>Ranking</u>	<u>DoN Activity</u>	<u>Military Value</u>
2	NS Norfolk, VA	67.51
3	SUBASE Kings Bay	63.51
9	SUBASE San Diego	58.29
12	SUBASE New London	50.68
	Summary Mean:	50.64

SUBASE New London's Military Value is too low

Many bases ranked below SUBASE New London remain open

15, not as well open

Military Value of Norfolk and Kings Bay not improved by closing
SUBASE New London

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

FAIR AND OBJECTIVE EXEMPTIONS?

- Naval Station Everett: Decision Postponed
Until After Quadrennial Defense Review
- SUBASE San Diego: Remains Open To Align
Industrial Facilities/Capabilities

NOTE: NS Everett and SUBASE New London Military Value
Scores are exactly the same (50.68)

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

CONFIGURATION ANALYSIS CONSTRAINTS REFLECT PREDECISIONS

- One strategic nuclear submarine homeport per coast *as K-8 2008*
- Two ports on each coast capable of cold iron berthing a nuclear powered carrier
↳ can't be done

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

“SEA-3. Does the installation have the ability to homeport SSBNs to include the ability to meet weapons stowage, transportation, maintenance, and handling requirements?” *- K-8 2008*

- Why were “to include weapons stowage...handling requirements” added to this arbitrary “constraint”?
- What was the “Weight” assigned to this question?
(Answer: Maximum allowed: 4.15)

*if this weight
is what?*

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

“SEA-4. What is the combined total linear feet of berthing for your piers/wharves in the following categories: Adequate Linear Feet, Substandard Linear Feet, Inadequate Linear Feet?”

SEA-5. What is the combined total linear feet of berthing for your piers/wharves which completed construction on or after 1 Jan 1990?”

SUBASE New London received a score of zero (0) for question SEA-4 and a score of 1.01 for question SEA-5

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

- **Unique Capabilities Were Omitted From SUBASE New London Military Value**

*2 mi of pier the
Sub School (Mingos Island
S. base
J-C3 to 200
manned etc.
Fished at cutter
beats X B*

**BRAC SELECTION CRITERIA 1 – 4
MILITARY VALUE**

IRRELEVANT FACTORS VALUED

“SEA-25. What is the transit distance to the nearest anti-air warfare range?”

SEA-26. What is the transit distance to the nearest naval gunnery qualification range?”

No Relevancy to Submarine Bases

Quanta

Surface

Submarine

**BRAC SELECTION CRITERIA 1 – 4
MILITARY VALUE**

**MILITARY VALUE REPORT FOR SHIPYARD
INTERMEDIATE MAINTENANCE ACTIVITY
(IMA)**

<u>RANK</u>	<u>ACTIVITY</u>	<u>MIL. VAL. SCORE</u>
2	TRIREFFAC KINGS BAY	0.5801
4	SIMA NORFOLK	0.4905
8	NSSF NEW LONDON	0.2961

NSSF New London maintains and repairs 18 SSNs,
and TRIREFFAC Kings Bay supports 5 SSBNs.

SERIOUS QUESTIONS ON THE CALCULATION OF MILITARY VALUE

- Military Value Of SUBASE New London Understated
- Indications Of Pre-decisions And Bias
- Some Bases Received Exemptions

GENERAL QUESTIONS/COMMENTS

- HAS CAPACITY FOR SURGE AND FUTURE FORCE LEVEL CHANGES BEEN ELIMINATED?
 - HAS A DIFFICULT-TO-RECONSTITUTE (NUCLEAR CERTIFIED) WATERFRONT BEEN CLOSED?
- HAS CAPACITY AT ONE SITE BEEN RELOCATED AND ADDED TO EXCESS CAPACITY AT ANOTHER SITE?
- HAVE FACILITIES AT BASES WITH SHIPS BEEN MOVED TO BASES WITHOUT SHIPS? *Supply & level*
- HOW MUCH IMPROVEMENT IS ACHIEVED IN MILITARY VALUE AT INDIVIDUAL RECEIVING SITES....AND AT WHAT REAL COST?

GENERAL QUESTIONS/COMMENTS

- **KINGS BAY CONSISTS OF THREE COMPONENTS: SUBMARINE HOMEPORT, WEAPONS STATION AND TRAINING SITE. WERE REALIGNMENT OPTIONS CONSIDERED FOR KINGS BAY?**
- **ARE ALL EAST COAST STRATEGIC MISSILE SUBMARINES AT KINGS BAY "IN ONE BASKET"?** *Tr. & S*
- **WHY DOES THE WORD "~~JOINT~~" NEVER APPEAR IN THE MILITARY VALUE QUESTIONS AND EVALUATIONS?** *your point is?*

CLOSING THOUGHTS

SUBASE NEW LONDON

- **PIERS: Modern And Within Walking Distance of BEQ's and Waterfront Operations**
- **HOUSING: \$200 Million Investment By Public-Private Venture (PPV)**
- **SUBMARINE SCHOOL: Unique Mission, Modern Facilities with State-of-the-Art Equipment**
- **NAVAL SUBMARINE SUPPORT FACILITY: On The Waterfront And Manned By Navy and EBCO Experts**



**BASE REALIGNMENT AND CLOSURE
(BRAC)
COMMISSIONER
BRIEFING**

BACKUP MATERIALS

**BRAC COMMISSION/NAVY HEARING
MAY 17, 2005**

“We wanted to ensure that all bases were treated equally. In that regard, we sought to look at everything in a **fair and objective** way, as required by law. There were **no predecisions** in this process. And we sought to obtain like data for like types of installations so that we could **compare them fairly.**”

Hearing Transcript, Pages 4, and 5

FORCE STRUCTURE PLAN

"The 20-year Force Structure Plan was submitted to Congress as part of the budget justification documents.....for FY 2005. This Force Structure Plan provided the basis for development of DON initial closure and realignment recommendations...

This Force Structure Plan was revised and submitted to Congress on March 15, 2005.....It also amended the ship composition by reducing submarines by 21 percent...."

BRAC REPORT-DoN VOL IV, Page 21

Question: Isn't this a "significant" change to the Plan?

Question: When was it discovered that the SSN force level was off by 21 percent?

Question: What were the DON initial closure and realignment recommendations, prior to the discovery of the 21 percent error in SSN force levels?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

SUBBASE NEW LONDON:	18 SSNs 10,000 personnel Naval Submarine Support Facility Naval Submarine School Regional Commander Headquarters
SUBBASE KINGS BAY:	5 (9/05: 4) SSBNs 3,500 personnel (approx.) Trident Refit/Training Facilities
SUBBASE SAN DIEGO:	6 SSNs 1,500 personnel (approx.) Submarine Training Center Detachment

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

"Military Value Scoring, Surface-Subsurface Function

Ranking	DoN Activity	Military Value
2	NS Norfolk, VA	67.51
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9	SUBASE San Diego	58.29
12	SUBASE New London	50.68
	Summary Mean:	50.64"

BRAC REPORT-DoN VOL IV, Appendix A, Page 1

Question: Why is SUBASE New London's Military Value so low?

Question: Does the closure of SUBASE New London improve the Military Value of NS Norfolk or SUBASE Kings Bay?

Question: Does the closure of SUBASE New London improve the overall Military Value of the Surface-Subsurface bases?

Question: Are the 15 bases ranked below SUBASE New London also closed?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

FAIR AND OBJECTIVE "EXEMPTIONS"?

"Naval Station Everett.....DoN leadership further decided that issue resolution associated with the Carrier Strike Group relocation to the Pacific theater required additional strategic analysis and discussions following the Quadrennial Defense Review and postponed any decision until post Quadrennial Defense Review"

BRAC REPORT-DoN VOL IV, Page A-5

NOTE: NS Everett and SUBASE New London Military Value Scores are exactly the same (50.68)

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

FAIR AND OBJECTIVE “EXEMPTIONS”?

“The discussions that occurred during these meetings were the basis for a clearer understanding of, among other things, the strategic importance of Submarine Base San Diego, CA as a submarine homeport and the importance of aligning industrial facilities/capabilities with carrier and submarine force strategic laydown.”

BRAC REPORT-DoN VOL IV, Page 35

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

CONFIGURATION ANALYSIS CONSTRAINTS

“The solutions to the optimization model were required to meet operational requirements and policy considerations, and did so by incorporating “rules” or “constraints”.....

BRAC REPORT – DoN VOL IV, Page 32

Question: What were the constraints?

Question: How did the constraints bias the analysis?

Question: Was the analysis truly “fair” and “objective”?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

CONFIGURATION ANALYSIS CONSTRAINTS

"The initial model run included the following rules approved by the DON Analysis Group:

One strategic nuclear submarine homeport per coast
Two ports on each coast capable of cold iron berthing a nuclear powered carrier"

BRAC REPORT-DoN VOL IV, Page A-4

Question: Were these constraints in fact "pre-decisions"?

Question: Did these rules "red shirt" certain bases?

Question: Were these constraints replicated elsewhere in the Military Value Evaluation?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

CRUISER EQUIVALENT (CGE) QUESTIONS

"SURFACE-SUBSURFACE CAPACITY DATA

<u>Active Homeports</u>	<u>Capacity (CGE)</u>
NEW LONDON	16.25
KINGS BAY	13.5
BANGOR	7.75"

BRAC REPORT-DoN VOL IV, Appendix A, Page 2

Question: How was CGE calculated at New London, Kings Bay, and Bangor?

Question: Did the use of CGE again bias the Base Capacity analysis against SUBASE New London as in BRAC 1993?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

“SEA-2. How many CVNs can you berth at your activity in cold iron status?”

BRAC REPORT – DoN VOL IV, Appendix A, Page 1

Question: Isn't this question also one of the arbitrary "constraints"?

Question: What was the "Weight" assigned to this question"? (Answer: Maximum allowed: 4.15)

Question: Was the use of "cold iron status" indicative of a "pre-decision"?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

“SEA-3. “Does the installation have the ability to homeport SSBNs to include the ability to meet weapons stowage, transportation, maintenance, and handling requirements?”

BRAC REPORT- DoN VOL IV, Appendix A, Page 1

Question: Isn't this question another one of those arbitrary "constraints"?

Question: Why were "to include weapons stowage...handling requirements" added to the arbitrary "constraint"?

Question: What was the "Weight" assigned to this question? (Answer: Maximum allowed: 4.15)

Question: Did the "constraint" and this "question" produce a "pre-decision"?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY EVALUATION QUESTIONS

“SEA-4. What is the combined total linear feet of berthing for your piers/wharves in the following categories: Adequate Linear Feet, Substandard Linear Feet, Inadequate Linear Feet?”

SEA-5. What is the combined total linear feet of berthing for your piers/wharves which completed construction on or after 1 Jan 1990?”

BRAC REPORT – DoN VOL IV, Appendix A, Page 1

Question: Why did SUBASE New London get a score of zero (0) for question SEA-4 and a score of 1.01 for question SEA-5?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

“SEA-7a-c. What is the relative value of the on-base Intermediate Maintenance (IM) facility in terms of capability and capacity?”

BRAC REPORT-DoN VOL IV, Appendix A, Page 3

Question: How did Kings Bay rank third among all bases (just behind NSY Portsmouth NH and NSY Norfolk, VA)?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

“SEA-9. What is the distance (safe navigation route) from your pier/wharf to the nearest nuclear capable shipyard?”

BRAC REPORT-DoN VOL IV, Appendix A, Page 3

Question: How far is EBCO from SUBASE New London?

Question: How far is Norfolk Naval Shipyard or Newport News from Kings Bay?

Question: How did Kings Bay receive a score of 1.18 compared to SUBASE New London score of 3.01?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

“SEA-11. Is there a deperming facility in the natural harbor complex?”

BRAC REPORT-DoN VOL IV, Appendix A, Page 4

Question: How often is a submarine depermed?

Question: Why was the phrase “in the natural harbor complex” used as the binary metric?

Question: Is this another example of a “pre-decision”?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY EVALUATION QUESTIONS

“SEA-13. Does the activity have specialized security/emergency service capabilities?”

BRAC REPORT DoN VOL IV, Appendix A, Page 5

Question: Why were three of the four “Capability” categories of the question only tailored to nuclear weapons?

Question: Why was three fourths of the scoring (.75 out of a possible 1.0) tailored to nuclear weapons...including SSBNs?

Question: Was the form and substance of this question designed to enhance the Military Value of a specific base?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

“SEA-14. List and describe any unique capabilities or missions performed by your activity. Unique is defined as a capability or mission performed at no other location.

SEA-22. List any unique operational training facilities (defined as a facility that exists at no other location)”

BRAC REPORT-DoN VOL IV, Appendix A, Pages 6 and 9

Question: Why were these questions deleted so late (Sep04)?

Question: Is the unique mission of Naval Submarine School performed other than at SUBASE New London?

Question: Are the unique Seawolf and Virginia Class operational trainers at any location other than SUBASE New London?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

“SEA-25. What is the transit distance to the nearest anti-air warfare range?”

SEA-26. What is the transit distance to the nearest naval gunnery qualification range?”

BRAC REPORT-DoN VOL IV, Appendix A, Page 11

Question: What is the relevancy of these questions to nuclear submarine bases?

Question: Did using these questions and their scores bias the Military Evaluation to certain submarine bases?

Question: Though “objective” was the use of these questions “fair”?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

“SEA-34a. In the table below, provide the percent of ship underways and arrivals delayed more than three hours due to weather.”

BRAC REPORT-DoN VOL IV, Appendix A, Page 12

Question: Why was this question deleted due to the non-availability of data from some activities?

Question: At what bases is weather data unavailable?

Question: Would this data have addressed port operations impacted by hurricanes?

BRAC SELECTION CRITERIA 1 - 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

"SEA-36. What is the distance to the nearest Explosive Ordnance Detachment support?"

BRAC REPORT-DoN VOL IV, Appendix A, Page 14

Question: Why is the evaluation parameter "distance"?

Question: Wouldn't a "fairer" parameter have been "response time"?

Question: Did this question bias the evaluation toward bases that currently have EOD on site?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

"SEA-38. What percent of the week was your harbor's operations limited due to dredging or other restrictions, not including dredging?"

BRAC REPORT-DoN VOL IV, Appendix A, Page 16

Question: Does Kings Bay require annual maintenance dredging? (YES)

Question: Does New London harbor require annual maintenance dredging? (NO)

Question: How did Kings Bay and SUBASE New London both receive the same score to this question?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

“ENV-1a. Does your harbor require dredging operations?

ENV-1b. Is a dredge spoil site identified? If so, what is the remaining capacity?”

BRAC REPORT-DoN VOL IV, Appendix A, Page 19

Question: How often must Kings Bay be dredged?

Question: How often must New London Harbor be dredged?

Question: How did Kings Bay score (.68) twice as high as New London (.34) in this Military Value question?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

“ENV-4. “Excluding DERA funds, provide the average annual total cost of environmental fees studies, permits, licenses, projects, etc.”

BRAC REPORT DoN VOL IV, Appendix A, Page 23

Question: Why were DERA funds completely excluded from this question?

Question: How would the Military Value of bases been impacted if DERA funds were considered?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

“ENV-7a. Do current Endangered Species/Marine Mammal Protection Act restrictions affect shore/in- water operations.....

ENV-7b. Does the existence of marine sanctuaries restrict operations.....

ENV-7c. Has the presence of coral reefs, marine mammals....or other sensitive marine zones resulted in restrictions....?”

BRAC REPORT-DoN VOL IV, Appendix A, Page 26

Question: What are the endangered species (manatees) at Kings Bay and at SUBASE New London?

Question: What information was requested in the Data Calls?

Question: How were the Kings Bay (.86) and SUBASE New London (1.15) scores determined?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

“PS-10. For the top five sea intensive ratings in the principle warfare community your base supports, provide rating, #sea billets in local area, and # shore billets in local area.”

BRAC REPORT-DoN VOL IV, Appendix A, Page 34

Question: Why was this question limited to the “top five sea intensive ratings”?

Question: Why was the Evaluation process changed to “number of shore billets/CGE ratio”?

Question: How did Kings Bay score twice as high as SUBASE New London ?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS SPECIALIZED SKILLS TRAINING

<u>LOCATION</u>	<u>NUMBER OF STUDENTS</u>		<u>MILITARY VALUE SCORE</u>		
	<u>CAPACITY</u>	<u>CLASSROOM CURRENT USAGE</u>	<u>INITIAL</u>	<u>PROGRESSION</u>	<u>FUNCTIONAL</u>
NEW LONDON	3077	1848 (60%)	35.82	39.56	37.85
NORFOLK	7017	2074 (30%)	38.55	52.68	51.29
KINGS BAY	5950	186 (3%)	40.79	56.45	45.34

*BRAC REPORT, JC-SG VOL VI, Capacity-Pages 32,
Military Value-Pages 8 -14*

Question: Why are the Military Value Rankings opposite to the order of the current classroom utilization?

Question: What were the specific criteria and data used to determine Specialized Skills Training Military Value?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

"IJCSG SUMMARY MILITARY VALUE REPORT FOR MAINTENANCE IMA

<u>MAINTENANCE COMMODITY</u>	<u>MILITARY VALUE SCORE</u>	
	<u>NSSF NEW LONDON</u>	<u>SWFLANT KINGS BAY</u>
AIRCRAFT/COMPONENTS/ENGINES	0.0001	0.0451
COMM/ELECTRONIC EQUIP	0.0001	0.0451
FABRICATION/MANUFACTRNG	0.0001	0.0451
GROUND VEHICLE/ COMPONENTS	0.0001	0.0451
ORDNANCE, WEAPONS, MISSILES	0.0001	0.0575
OTHER COMMODITY	0.0001	0.0302
SOFTWARE	0.0001	0.0451
SUPPORT EQUIPMENT	0.0001	0.0451"

IJCSG FINAL REPORT, MILITARY VALUE REPORT, PAGES 121 and 151

QUESTION: How were these Military Value scores determined?

QUESTION: Was there a "predecision" in determining the Military Value of NSSF New London?

BRAC SELECTION CRITERIA 1 – 4 MILITARY VALUE

MILITARY VALUE EVALUATION QUESTIONS

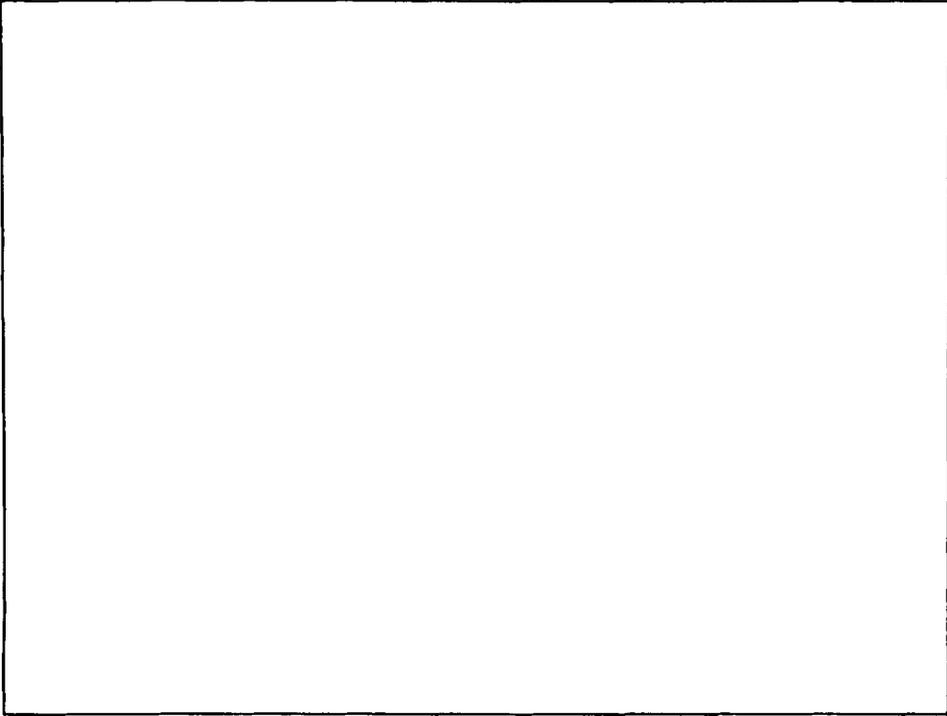
“JCSG SUMMARY MILITARY VALUE REPORT FOR SHIPYARD IMA

<u>RANK</u>	<u>ACTIVITY</u>	<u>MIL. VAL. SCORE</u>
2	TRIREFFAC KINGS BAY	0.5801
4	SIMA NORFOLK	0.4905
8	NSSF NEW LONDON	0.2961”

IJCSG FINAL REPORT, MILITARY VALUE REPORT, PAGE 1

Question: NSSF New London maintains and repairs 18 SSNs, and TRIREFFAC Kings Bay supports 5 SSBNs. How were these Military Value scores determined?

Question: With 0.2961 Shipyard IMA Military Value Score, how did NSSF New London get 0.0001 Maintenance IMA Military Value scores?



NOTE: This updated general circulation version of the Northeast-Midwest Institute's base closings report includes limited state-level data on Defense Department personnel and no state-by-state tables or listings about current defense facilities and major site closings from prior recommendations of the Base Realignment and Closure Commissions. The Institute offers a full report – complete with detailed state-level data on the full range of issues – to paying members of the Northeast-Midwest Congressional and Senate Coalitions and to states that contribute to the Northeast-Midwest Institute.

April 2005 Updated Summary Report on

Base Closings and Military Presence
in the Northeast-Midwest:

The Nation's Unguarded Region



Matt Kane
Northeast-Midwest Institute
© April 2005



Updated Northeast-Midwest Institute Report

Unlike the May 2004 report, the summary April 2005 update to *Base Closings and Military Presence in the Northeast-Midwest* includes data for all 50 states regarding changes and ranks for the decline in active duty military and total Defense Department personnel from 1987 to 2002, and also information about military reserve and National Guard forces. The Northeast-Midwest accounts for a greater share of the nation's reserves and National Guard than its active duty military personnel. This revised April 2005 report analyzes the regional distribution of reserve and guard forces and also includes them in totals for Defense Department military personnel.

The Northeast-Midwest Institute report on *Base Closings and Military Presence in the Northeast-Midwest* – both the 2005 update and the original 2004 version – use Defense Department personnel data from September 30, 1987, and September 30, 2002, to measure the state and regional impacts of base realignment and closure (BRAC) decisions from 1988, 1991, 1993, and 1995. While the numbers are affected by actions aside from the BRAC rounds, they show the actual shifts in personnel over time and therefore offer the best information about staffing changes. These numbers allow for comparisons of actual personnel from before any decisions about realignments and closures to seven years after the 1995 decisions. By contrast, data from the Defense Department's Office Economic Adjustment on "1995 BRAC Commission Estimates of Job Gains and Losses" are based on expected outcomes only and fail to incorporate important changes that the 1995 Base Realignment and Closure Commission made to previous BRAC commission decisions about base closings.



Northeast-Midwest Institute *The Center for Regional Policy*

The Northeast-Midwest Institute is a Washington-based, private, non-profit, and non-partisan research organization dedicated to economic vitality, environmental quality, and regional equity for Northeast and Midwest states. Formed in the mid-1970s, it fulfills its mission by conducting research and analysis, developing and advancing innovative policy, providing evaluation of key federal programs, disseminating information, and highlighting sound economic and environmental technologies and practices.

The Institute is unique among policy centers because of its ties to Congress through the Northeast-Midwest Congressional and Senate Coalitions. Co-chaired by Sens. Susan Collins (R-ME) and Jack Reed (D-RI), and Reps. Steven LaTourette (R-OH) and Marty Meehan (D-MA), the bipartisan coalitions advance federal policies that enhance the region's economy and environment.

The states served by the Institute and Coalitions are Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and Wisconsin.



For more information about the Institute and its work, visit www.nemw.org.

Summary: The Regional Imbalance in the Nation's Military Presence

The Northeast and Midwest stand out as the nation's least guarded regions at a time when military concerns increasingly focus on homeland defense and as the U.S. Defense Department prepares to significantly reduce its installations on home soil. The 18 northeastern and midwestern states, which hold about 40 percent of the nation's population, account for only just more than 10 percent of the active duty military personnel located in the country. The region contains densely populated metropolitan areas, critical transportation and telecommunications infrastructure, key border crossings and ports for international trade, and the resources that produce more than 40 percent of the nation's annual economic output – yet together the 18 states of the Northeast-Midwest contain fewer active duty military personnel than Texas alone, or the state of California.

That regional imbalance in the military's national presence could grow worse if the burden for defense cutbacks in 2005 and beyond disproportionately falls on the Northeast-Midwest, as it has in past. From 1987 to 2002, when the Defense Department carried out four rounds of base closings and realignments, the number of active duty military personnel fell by 41 percent in the Northeast-Midwest, compared to 21 percent for the South and West. For reserve and National Guard forces, the region experienced a 37 percent drop, compared to 22 percent for the rest of the country. For civilian Defense Department employees, the decline in the Northeast-Midwest was 41 percent, compared to 34 percent elsewhere.

In May 2005, the Department of Defense will release recommendations for base closings and realignments designed to reduce redundancies, trim excess physical capacity, and yield major cost savings. The Defense Department estimates that its current 276 major U.S. installations exceed its infrastructure needs by 24 percent, using the 1989 ratio of personnel to physical plant. Based on the experience of base realignment and closure (BRAC) rounds in 1993 and 1995, the Defense Department anticipates that BRAC 2005 will yield a one-time savings of \$3 billion to \$5 billion by 2011 and then reoccurring, annual savings of \$5 billion to \$8 billion thereafter. Closings and realignments will affect all types of defense facilities, not just military bases.

This reduction in infrastructure costs could free up funds not only for Defense Department priorities but also for tax cuts or spending by other federal agencies. Very few Northeast-Midwest states benefit disproportionately from defense spending. The Northeast-Midwest region, which is estimated to contribute 44 percent of the federal taxes, accounts for just 25 percent of Defense Department spending in the United States, compared to 41 percent of the U.S. spending by all other federal agencies, according to fiscal 2003 data. Regional inequities in overall defense spending significantly and adversely affect the return on federal tax dollar for many northeastern and midwestern states.

The forthcoming base realignments and closings must be made in a way that recognizes regional inequities in defense capabilities and spending, addresses homeland defense concerns, and acknowledges that the military's presence is important to states and regions in this age of unconventional threats, especially terrorism. When it comes to homeland security, the military has only a minor presence in the vital Northeast-Midwest region, and, as the U.S. General Accounting Office has noted, the Defense Department's "force structure is not well tailored to perform domestic military missions." While it would make little sense to distribute military personnel throughout the county simply for the sake of geographical balance, it also would make little sense to further reduce the already small share of military personnel in the vulnerable Northeast-Midwest.

Low Military Presence in the Northeast-Midwest

Regional shares of active duty military personnel

The Northeast and Midwest account for a startlingly small share of the nation's active duty military personnel, even before decisions about U.S. base closings and realignments for 2005. The defense presence is skewed to the West and even more so to the South. The Northeast and Midwest experienced significantly steeper drops in active duty military personnel and total Defense Department personnel from the first round of base closings in 1988 to the present. (See Summary Table 1.) As fiscal 2003 opened (six months before troops were deployed to Iraq), only about one-tenth (10.9 percent) of all the active duty military personnel located in the United States

were based in the Northeast-Midwest, even though the region comprised almost two-fifths (39.6 percent) of the nation's population. (See data in full report.) The regional breakdown for active duty military – not including reserve and guard forces – is as follows:

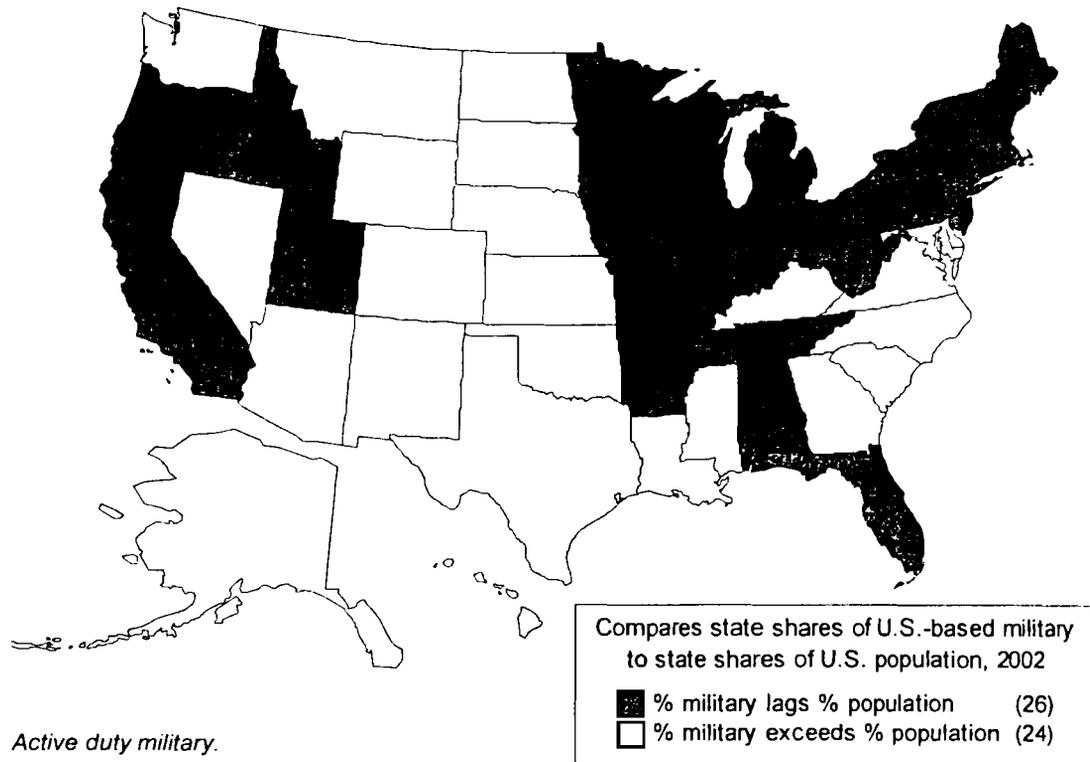
- Midwest – 3.4 percent of the active duty military personnel in the country and 18.6 percent of the population.
- Northeast – 7.4 percent of the active duty military and 21.0 percent of the population.
- South – 55.4 percent of the active duty military and 33.7 percent of the population.
- West – 33.7 percent of the active duty military and 26.7 percent of the population.

Defense Department data for levels as of September 2002 show 113,700 active duty military personnel located in the Northeast-Midwest, 578,800 in the South, and 352,600 in the West, with 123,900 in California alone. The Northeast-Midwest also lags behind the South and West for share of reserve and National Guard forces, at about one-third (34.8 percent) of the national total; share of civilian Defense Department personnel, at just more than one-quarter (26.0 percent); and share of overall Defense Department personnel, at just less than on-quarter (24.0 percent). (See Summary Tables 1 and 2 and data in full report.) Aside from military bases, some of the larger concentrations of civilian personnel in the Northeast-Midwest are found at Defense Department arsenals, weapons centers, and similar facilities where workers research, design, test, acquire, and produce weapons and equipment; military academies, colleges, and training facilities; supply depots and supply service centers; military hospitals and medical centers; defense logistics centers; and shipyards where naval vessels are maintained and produced.

Concentrations of active duty military personnel by state

Comparisons between state shares of U.S.-based active duty military personnel and state shares of the U.S. population indicate where the military are concentrated at present, prior to the BRAC 2005 decisions. The Northeast-Midwest includes only two of the 24 states where the share of active duty military exceeds the share of population. The two states are Delaware and Maryland. The other sixteen Northeast-Midwest states have relatively low concentrations of military personnel given the size of their populations. By contrast, the share of active duty military exceeds the share of population for 13 of 18 states in the West and nine of 14 states in the South. The Northeast-Midwest accounts for six of the top ten most populated states (NY, IL, PA, OH, MI, and NJ) but none of the ten states with the largest populations of active duty military personnel. (See data in full report.)

States where Share of Military Lags Share of Population



Active duty military.

Northeast-Midwest share of major defense installations

Not surprisingly, northeastern and midwestern states also account for a relatively small share of the major military bases located in the United States, according to the Defense Department's *Base Structure Report* for the start of fiscal 2003. For sites larger than ten acres and with plant replacement values of more than \$10 million, only 76 of the 300 installations with the largest number of personnel are located in the Northeast and Midwest. The region, therefore, is home to just one-fourth (25.3 percent) of the top 300 sites. (See data in full report.)

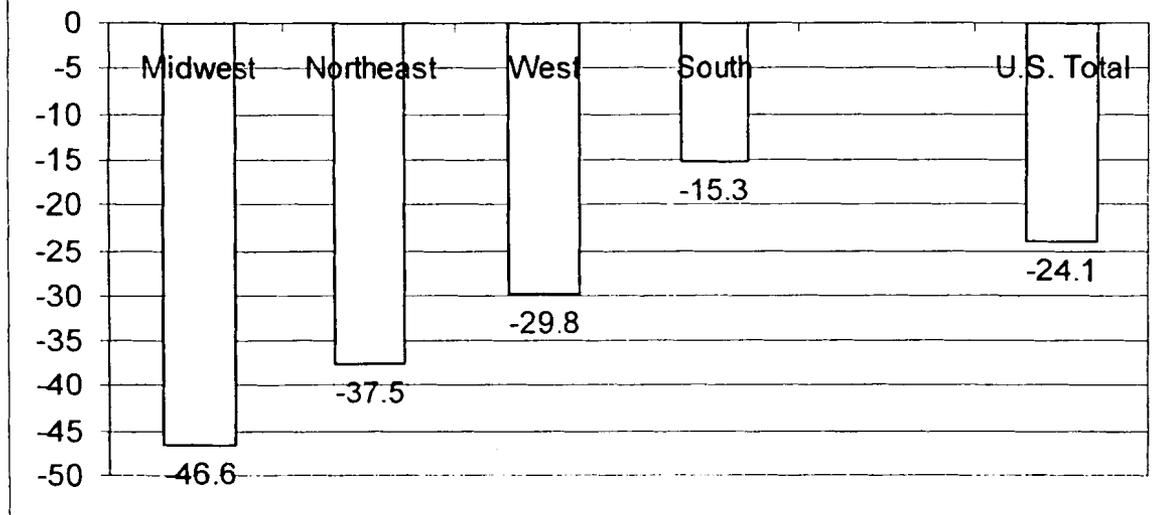
Disproportionate Cuts for the Northeast-Midwest, 1987-2002

The Defense Department significantly reduced the number personnel in the United States from 1987 to 2002, in part through decisions on base closings and realignments in 1988, 1991, 1993, and 1995. The Northeast-Midwest sustained a disproportionately high share of those reductions. Of the total decline in U.S.-based active duty military over the period, almost one-quarter of the cut (23.4 percent) occurred in the 18 northeastern and midwestern states, even though the region accounted for only about one-seventh (13.9 percent) of the nation's military personnel in 1987. For total U.S.-based Defense Department personnel, the Northeast-Midwest accounted for 37.7 percent of the drop from 1987 to 2002 but only 27.9 of the baseline 1987 level. More than half (52.8 percent) of the cuts in reserve and National Guard personnel from 1987 to 2002 occurred in the Northeast-Midwest region, which accounted for about two-fifths (39.8 percent) of the nation's 1987 reserve and guard. For Defense Department civilian employees, the region accounted for 28.3 percent of the personnel in 1987 but sustained 32.4 percent of the cuts through 2002. (See data in full report.)

Percentage cuts by region

Defense Department data show that the number of U.S.-based active duty military personnel nationwide dropped by 332,400, or 24.1 percent, from 1.377 million in September 1987 to 1.045 million in September 2002. Active duty military personnel in the Northeast-Midwest fell 40.6 percent over the period. The drops were steepest for the Midwest, where the number of military personnel fell by 46.6 percent from 67,000 to 35,800, and for the Northeast, where the number fell 37.5 percent from 124,400 to 77,800. In the Northeast's six New England states, the number of active duty military personnel fell 58.4 percent from 30,600 to 12,700. The percentage decline for the West, at 29.8, also exceeded the national rate. The South, however, experienced only a 15.3 percent drop. In terms of U.S.-based reserves and National Guard, the Northeast and Midwest experienced a 36.9 percent drop, compared to a 21.9 percent decline in the South and West. For civilian Defense Department personnel in the United States, the Northeast-Midwest saw a decline of 41.0 percent from 1987 to 2002, while the drop for the rest of the nation was 33.8 percent. And for Defense Department personnel overall, the totals declined 38.6 percent in the region and 24.7 percent elsewhere. (See Summary Tables 1 and 2 and data in full report.)

Percent Drop in Military Personnel, 1987-2002



Active duty military.

State declines

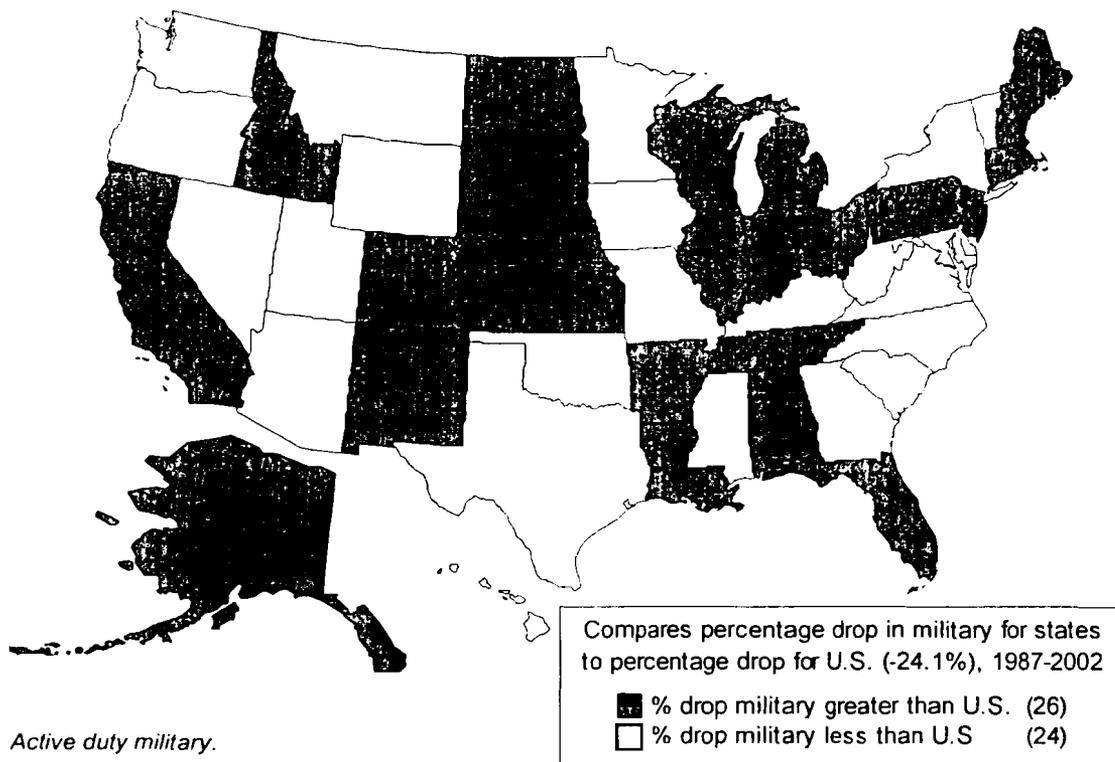
At the state level, nine Northeast-Midwest states and six others saw a drop of 40 percent or more in the active duty military personnel located within their borders from 1987 to 2002. Among those 15 states, the steepest declines affected New Hampshire, with a 92.1 percent drop of 3,800 military personnel to just 300; Michigan, with an 87.4 percent drop of 8,000 to 1,200; and Indiana, with an 84.1 percent drop of 5,500 to 1,000. In percentage terms, California ranked 15th behind nine Northeast-Midwest states for its 40.0 percent drop in active duty military personnel from 1987 to 2002, although California sustained the largest decline in number (down 82,500). (See Summary Table 1.)

States Where Active Duty Military Declined by 40 Percent or More Percent, 1987-2002

	1987 Military	2002 Military	Change in Military 1987-2002	Percentage Change in Military 1987-2002	Rank for Percentage Decline
New Hampshire	4,143	326	-3,817	-92.1	1
Michigan	9,300	1,173	-8,127	-87.4	2
Indiana	6,543	1,041	-5,502	-84.1	3
Tennessee	10,549	2,554	-7,995	-75.8	4
Massachusetts	9,355	2,427	-6,928	-74.1	5
New Jersey	19,673	6,306	-13,367	-67.9	6
Maine	5,849	2,689	-3,160	-54.0	7
Pennsylvania	6,600	3,098	-3,502	-53.1	8
Alabama	23,825	11,354	-12,471	-52.3	9
Arkansas	9,793	4,855	-4,938	-50.4	10
South Dakota	6,744	3,350	-3,394	-50.3	11
Nebraska	13,498	7,793	-5,705	-42.3	12
Ohio	11,780	6,899	-4,881	-41.4	13
Connecticut	7,223	4,239	-2,984	-41.3	14
California	206,495	123,948	-82,547	-40.0	15

Nationwide, the percentage decline in active duty military personnel exceeded the U.S. mark of 24.1 percent for 26 states, including two-thirds (12) of the 18 northeastern and midwestern states. (See Summary Table 1.)

States where Percent Drop in Military Exceeded U.S. Rate



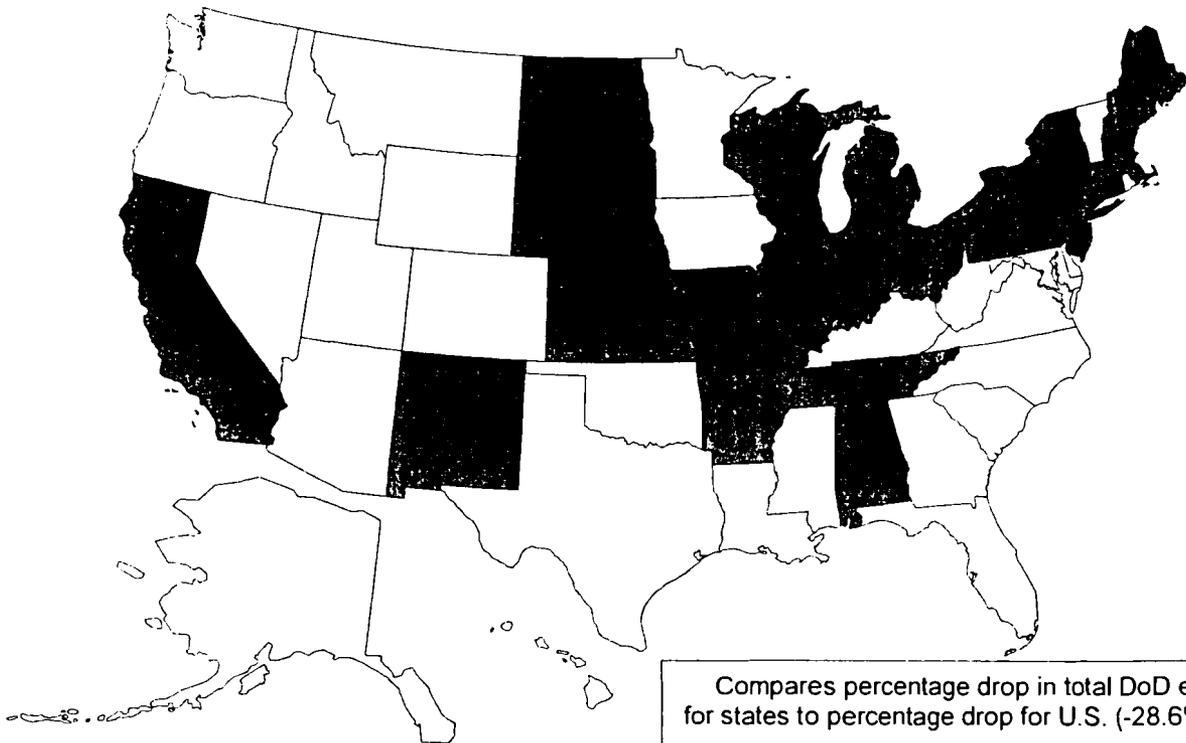
In terms of percentage declines for overall Defense Department personnel (active duty military, reserves and National Guard, and civilian), the Northeast-Midwest accounted for eight of the ten states that experienced the steepest drops from 1987 to 2002, and two of the next five. New Hampshire and New Jersey both experienced drops of more than 50 percent. For percentage change, California ranked seventh behind six Northeast-Midwest states for its 42.2 percent drop in total Defense Department personnel, although California sustained the largest decline in number (200,300). (See Summary Table 2.) In some cases, for states in the region and throughout the country, reductions in personnel may have resulted from a shift in workers from one state to defense facilities in nearby states.

States with the Steepest Percentage Declines in Overall Defense Department Personnel, 1987-2002

*Includes reserves,
National Guard, and
DoD civilian.*

	1987 Total DoD Personnel	2002 Total DoD Personnel	Change in Total DoD Personnel 1987-2002	Percent Change in Total DoD Personnel 1987-2002	Rank for Percentage Decline
New Hampshire	13,638	6,566	-7,072	-51.9	1
New Jersey	86,749	43,054	-43,695	-50.4	2
Michigan	70,378	35,738	-34,640	-49.2	3
Massachusetts	62,029	31,542	-30,487	-49.1	4
Pennsylvania	138,772	77,352	-61,420	-44.3	5
Indiana	60,335	34,134	-26,201	-43.4	6
California	474,802	274,471	-200,331	-42.2	7
New York	137,163	79,436	-57,727	-42.1	8
Maine	26,385	15,681	-10,704	-40.6	9
Connecticut	28,222	16,923	-11,299	-40.0	10
Tennessee	55,459	34,271	-21,188	-38.2	11
Alabama	97,415	61,389	-36,026	-37.0	12
Ohio	108,210	69,333	-38,877	-35.9	13
Illinois	114,881	75,413	-39,468	-34.4	14
Nebraska	30,251	19,917	-10,334	-34.2	15

States where Percent Drop in Total Defense Exceeded U.S. Rate



Compares percentage drop in total DoD employment for states to percentage drop for U.S. (-28.6%), 1987-2002

- % drop total DoD greater than U.S. (22)
- % drop total DoD less than U.S. (28)

Major Base Closings from Previous BRAC Rounds

In keeping with recommendations from the Base Realignment and Closure Commissions for 1988, 1991, 1993, and 1995, the Defense Department closed about 450 installations in the United States and the territories, including 95 major facilities in the states and two in Guam. For seven of the 95 major closings in states – including three in the Northeast-Midwest – the use of the military facilities was shifted over to the reserves and National Guard.

The Northeast-Midwest accounted for 35 of the 95 major closings in the states, or more than one-third of the total, despite the region's smaller share of Defense Department personnel in 1987 (13.9 percent of the U.S.-based active duty military personnel and 27.9 percent of all Defense Department personnel). Major closings took place in 11 of the 18 northeastern and midwestern states, as well as eight of 18 western states and nine of 14 southern states. And the Northeast and Midwest accounted for seven of the 12 states that experienced three or more major closings during the prior BRAC rounds – PA (6), IL (5), NY (5), IN (4), MD (4), MA (3), and OH (3). (See data in full report.) California accounted for 24 of the 95 major closings from prior BRAC rounds.

The Defense Department estimates that the four previous BRAC rounds created a net savings to the federal government of \$29 billion through fiscal 2003 from all closures and realignments in the United States after accounting for associated expenditures, including environmental restoration costs. The department estimates reoccurring, annual savings of \$7 billion beyond fiscal 2003 through reduced operating costs and increased operating efficiencies.

In selecting major sites for closure in prior BRAC rounds, the Defense Department and the BRAC Commissions looked at the military value of the facilities compared to current needs and future plans for the armed forces, with an eye toward reducing redundancies and costs, increasing efficiencies, avoiding investment in deteriorating infrastructure, and consolidating technology and expertise in the case of research and design operations and medical centers. The deciding factors for many closings were issues common in the more densely populated areas of the Northeast-Midwest – land constraints, high costs, urban growth and the resulting encroachment upon the military's ability to maneuver in an area, and the likelihood that the Defense Department would receive significant revenues from the sale of a closed property. Many of the same factors will come into play for BRAC 2005.

BRAC 2005 Process and Criteria

BRAC Process

For BRAC 2005, the secretary of defense will release by May 16, 2005, a list of military installations recommended for reductions and closings based on force structure plans, infrastructure inventory, and specific criteria for the 2005 BRAC round. The list of proposed closings and realignments will go to the nine-member BRAC Commission, recently appointed by the president. The BRAC Commission will review the secretary's recommendations, hold public meetings to solicit input, change the secretary's recommendations if necessary, and submit its own recommendations to the president by September 2005. In the past, BRAC Commissions have adopted the vast majority of the secretary's recommendations. If the president approves the commission's 2005 recommendations, they become binding upon the Defense Department unless Congress enacts a joint resolution disapproving the full list of recommendations within 45 legislative days of submission by the president. If the president disapproves of the recommendations, the commission must revise its recommendations and resubmit them to the president by October 20, 2005, again for approval and implementation, barring disapproval from Congress.

BRAC Criteria and Homeland Defense Issues

Both the secretary of defense and the BRAC Commission will make decisions about base closings and realignments using criteria compiled by the Defense Department and reviewed by Congress. As with previous BRAC rounds, the primary emphasis for 2005 falls on criteria related to the military value of the installations. The 2005 BRAC criteria are very similar to criteria used in previous BRAC rounds but with an added emphasis on joint capabilities and utilization among the different components of the armed forces. The 2005 criteria contain a number of other differences, including mention of "staging areas for the use of the armed forces in homeland defense missions." Explicit mention of homeland defense in the criteria may be important to the Northeast-Midwest region, which accounts for only about 15 percent of the nation's land but holds about 40 percent of the

nation's people and includes many potential targets for terrorism, as demonstrated by the horrific attacks on New York City on September 11, 2001.

Some have criticized the Defense Department's existing force structure plans for not adequately addressing homeland security threats and domestic military missions, although the department has made adjustments and expects to make more as part of its 2005 Quadrennial Defense Review. In January 2004, U.S. Senator Kay Bailey Hutchinson (R-TX) called on the Defense Department to alter its 2005 BRAC criteria in light of domestic military concerns, saying in a letter to the Pentagon that the Department of Defense "should also consider how closing or [realigning] installations affects our homeland security. The current... criteria, very similar to that proposed in previous BRAC rounds, do not fully reflect the security issues our country faces in the wake of September 11, 2001. Our nation is not dealing with the same threats we were in 1995 and therefore we must develop new strategies to insure the military does not close a base only to later realize its costly mistake."

Final Criteria

The final BRAC 2005 criteria are listed below. The first four items relate to the issue of military value and are weighted more heavily, while the last four recognize other considerations.

1. The current and future mission capabilities and the impact on operational readiness of the Department of Defense's total force, including the impact on the joint warfighting, training, and readiness.
2. The availability and condition of land, facilities, and associated airspace (including training areas suitable for maneuver by ground, naval, or air forces throughout a diversity of climate and terrain areas and staging areas for the use of the armed forces in homeland defense missions) at both existing and potential receiving locations.
3. The ability to accommodate contingency, mobilization, and future total force requirements at both existing and potential receiving locations to support operations and training.
4. The cost of operations and the manpower implications.
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.
6. The economic impact on existing communities in the vicinity of military installations.
7. The ability of both the existing and potential receiving communities' infrastructure to support forces, missions, and personnel.
8. The environmental impact, including the impact of costs related to potential environmental restoration, waste management, and environmental compliance activities.

Conclusion: Avoid Cuts in the Military for the Northeast-Midwest

The Defense Department and the 2005 BRAC Commission should steer clear of base closings and deep cuts in military personnel for the Northeast-Midwest region in 2005 and beyond. The Northeast and Midwest have sustained steep reductions in Defense Department personnel through the four rounds of base closings and realignments since 1987, with the number of active duty military in the region dropping 41 percent over the period, compared to only 21 percent for the rest of the country. More than half the drop in reserve and National Guard forces since 1987 happened in the Northeast-Midwest region. Now as the nation prepares for another round of closings and realignments, the Northeast-Midwest accounts for just more than 10 percent of the U.S.-based active duty military personnel, although the region holds almost 40 percent of the nation's population and accounts for more than 40 percent of its annual economic output. The region accounts for less than a quarter of all Defense Department employment in the United States. With increased attention to the military's role in defending the homeland and responding to terrorist threats, it is clear that the Northeast-Midwest region needs a strong military presence. BRAC 2005 must not further erode the limited defense presence now in the region.

Data Sources and Notes

Defense Department Personnel: The data in this report regarding active duty military and civilian Defense Department personnel are as of September 30, 2002 and 1987, and they come from *Distribution of Personnel by State and Selected Location (M02)*, produced by the Defense Department's Directorate for Information Operations and Reports. U.S. levels exclude personnel in Puerto Rico and the territories, as well as those afloat or in foreign countries. In some cases, especially those pertaining to metropolitan areas, military departments may report personnel by parent installation or assigned location rather than their operating location. Different branches of the armed forces may differ in their reporting practices for personnel in transit or transition, as well as personnel on temporary duty.

Data on reserves and National Guard also are for personnel levels as of September 30, 2002 and 1987, and they come from *Atlas/Data Abstract for the United States and Selected Areas* (fiscal years 1987 and 2002) produced by the Defense Department's Directorate for Information Operations and Reports. The atlas/data abstract also includes numbers for active duty military and civilian Defense Department personnel, which are comparable to the data found in *Distribution of Personnel by State and Selected Location (M02)*.

Population and Federal Spending: State and regional population data, used to identify concentrations of military personnel, are estimates from late 2004 by the U.S. Census Bureau for state populations as of July 1, 2002. Data on shares of Defense Department and other federal spending for fiscal 2003 also come from the Census Bureau.

Major Military Installations: Data regarding current major military installations are for the Defense Department's physical plant as of October 1, 2002, and they come from *Base Structure Report (A Summary of DoD's Real Property Inventory): Fiscal Year 2003 Baseline*, produced by the Office of the Deputy Undersecretary of Defense (Installations & Environment). The *Base Structure Report* catalogs sites of more than ten acres in size and with plant replacement values of more than \$10 million. The Defense Department compiles personnel counts for this inventory report from a variety of sources and includes in them both military and civilian personnel of the Defense Department, as well as personnel authorized for a site but not employed by the Defense Department. The tallies of personnel in the inventory differ significantly from those found in the Defense Department's report on *Distribution of Personnel by State and Selected Location* and its *Atlas/Data Abstract for the United States and Selected Areas*. (See data in full report.) The Northeast-Midwest Institute used the inventory data on personnel in order to identify 300 major installations from those listed in the *Base Structure Report*.

Previous Base Closings: Data on closings from previous BRAC rounds come from the Defense Department's *Report Required by Section 2912 of the Defense Base Closure and Realignment Act of 1990, as amended through the National Defense Authorization Act for Fiscal Year 2003*, March 2004. That Defense Department report does not identify the criteria used to designate base closings as major, however the report does describe major bases as ones "sited on large installations that provide the variety of support functions [that] forces need."

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Summary Table 1. Levels, Changes, and Ranks for U.S.-based Active Duty Military, 1987-2002

Northeast-Midwest Institute, April 2005

State or Region	Active Duty Military ¹ 1987	Percent of Active Duty Military 1987	Active Duty Military ¹ 2002	Percent of Active Duty Military 2002	Change in Active Duty Military 1987-2002	Percent Change in Act. Duty Military 1987-2002	Rank for Percent Drop in Act. Duty Military
New England							
Connecticut	7,223	0.5	4,239	0.4	-2,984	-41.3	14
Maine	5,849	0.4	2,689	0.3	-3,160	-54.0	7
Massachusetts	9,355	0.7	2,427	0.2	-6,928	-74.1	5
New Hampshire	4,143	0.3	326	0.0	-3,817	-92.1	1
Rhode Island	3,941	0.3	2,974	0.3	-967	-24.5	26
Vermont	68	0.0	61	0.0	-7	-10.3	41
Total	30,579	2.2	12,716	1.2	-17,863	-58.4	
Mid-Atlantic							
Delaware	4,818	0.3	3,899	0.4	-919	-19.1	33
Maryland	35,726	2.6	30,928	3.0	-4,798	-13.4	37
New Jersey	19,673	1.4	6,306	0.6	-13,367	-67.9	6
New York	27,040	2.0	20,882	2.0	-6,158	-22.8	29
Pennsylvania	6,600	0.5	3,098	0.3	-3,502	-53.1	8
Total	93,857	6.8	65,113	6.2	-28,744	-30.6	
Midwest							
Illinois	37,250	2.7	25,036	2.4	-12,214	-32.8	19
Indiana	6,543	0.5	1,041	0.1	-5,502	-84.1	3
Iowa	380	0.0	447	0.0	67	17.6	NA
Michigan	9,300	0.7	1,173	0.1	-8,127	-87.4	2
Minnesota	901	0.1	702	0.1	-199	-22.1	30
Ohio	11,780	0.9	6,899	0.7	-4,881	-41.4	13
Wisconsin	884	0.1	532	0.1	-352	-39.8	16
Total	67,038	4.9	35,830	3.4	-31,208	-46.6	
South							
Alabama	23,825	1.7	11,354	1.1	-12,471	-52.3	9
Arkansas	9,793	0.7	4,855	0.5	-4,938	-50.4	10
District of Columbia	13,048	0.9	12,767	1.2	-281	-2.2	Not rated
Florida	75,713	5.5	55,815	5.3	-19,898	-26.3	25
Georgia	62,909	4.6	64,392	6.2	1,483	2.4	NA
Kentucky	39,196	2.8	34,081	3.3	-5,115	-13.0	38
Louisiana	25,249	1.8	16,541	1.6	-8,708	-34.5	17
Mississippi	17,470	1.3	14,005	1.3	-3,465	-19.8	32
North Carolina	94,786	6.9	94,296	9.0	-490	-0.5	46
Oklahoma	30,786	2.2	23,664	2.3	-7,122	-23.1	28
South Carolina	44,629	3.2	37,943	3.6	-6,686	-15.0	35
Tennessee	10,549	0.8	2,554	0.2	-7,995	-75.8	4
Texas	135,071	9.8	115,100	11.0	-19,971	-14.8	36
Virginia	99,950	7.3	90,851	8.7	-9,099	-9.1	44
West Virginia	420	0.0	558	0.1	138	32.9	NA
Total	683,394	49.6	578,776	55.4	-104,618	-15.3	

Summary Table 1. Levels, Changes, and Ranks for U.S.-based Active Duty Military, 1987-2002

Northeast-Midwest Institute, April 2005

State or Region	Active Duty Military ¹ 1987	Percent of Active Duty Military 1987	Active Duty Military ¹ 2002	Percent of Active Duty Military 2002	Change in Active Duty Military 1987-2002	Percent Change in Act. Duty Military 1987-2002	Rank for Percent Drop in Act. Duty Military
West							
Alaska	22,127	1.6	15,906	1.5	-6,221	-28.1	23
Arizona	24,880	1.8	22,448	2.1	-2,432	-9.8	43
California	206,495	15.0	123,948	11.9	-82,547	-40.0	15
Colorado	42,709	3.1	29,733	2.8	-12,976	-30.4	22
Hawaii	45,396	3.3	34,608	3.3	-10,788	-23.8	27
Idaho	5,877	0.4	4,251	0.4	-1,626	-27.7	24
Kansas	23,127	1.7	15,819	1.5	-7,308	-31.6	21
Missouri	15,691	1.1	16,119	1.5	428	2.7	NA
Montana	4,018	0.3	3,512	0.3	-506	-12.6	39
Nebraska	13,498	1.0	7,793	0.7	-5,705	-42.3	12
Nevada	9,955	0.7	8,461	0.8	-1,494	-15.0	34
New Mexico	16,567	1.2	11,254	1.1	-5,313	-32.1	20
North Dakota	11,245	0.8	7,465	0.7	-3,780	-33.6	18
Oregon	760	0.1	705	0.1	-55	-7.2	45
South Dakota	6,744	0.5	3,350	0.3	-3,394	-50.3	11
Utah	6,044	0.4	5,447	0.5	-597	-9.9	42
Washington	43,289	3.1	38,521	3.7	-4,768	-11.0	40
Wyoming	4,141	0.3	3,292	0.3	-849	-20.5	31
Total	502,563	36.5	352,632	33.7	-149,931	-29.8	
Northeast	124,436	9.0	77,829	7.4	-46,607	-37.5	
Midwest	67,038	4.9	35,830	3.4	-31,208	-46.6	
Northeast and Midwest	191,474	13.9	113,659	10.9	-77,815	-40.6	
South	683,394	49.6	578,776	55.4	-104,618	-15.3	
West	502,563	36.5	352,632	33.7	-149,931	-29.8	
South and West	1,185,957	86.1	931,408	89.1	-254,549	-21.5	
U.S. Total²	1,377,431	100.0	1,045,067	100.0	-332,364	-24.1	

¹Counts Defense Department active duty military personnel in the United States as of September 30. The personnel data do not include individuals in the reserves or National Guard, or personnel afloat. In some cases, especially those pertaining to metropolitan areas, military departments may report personnel by parent installation or assigned location rather than their operating location. Different departments of the armed forces may differ in their reporting practices for personnel in transit or transition, as well as personnel on temporary duty.

²U.S. totals exclude foreign-based personnel, as well as personnel in Puerto Rico and the territories. The District of Columbia is included in the South.

Source: Northeast-Midwest Institute calculations based on data from the Department of Defense, Directorate for Information Operations and Reports, *Distribution of Personnel by State and Selected Location (M02)*, September 30, 1987, and September 30, 2002.

Summary Table 2. Levels, Changes, and Ranks for Total U.S.-based Defense Department Personnel, 1987-2002

Northeast-Midwest Institute, April 2005

State or Region	Total ¹ 1987	Percent of Total 1987	Total ¹ 2002	Percent of Total 2002	Change in Total 1987-2002	Percent Change in Total 1987-2002	Rank for Percent Drop in Total
New England							
Connecticut	28,222	0.7	16,923	0.6	-11,299	-40.0	10
Maine	26,385	0.7	15,681	0.6	-10,704	-40.6	9
Massachusetts	62,029	1.6	31,542	1.1	-30,487	-49.1	4
New Hampshire	13,638	0.3	6,566	0.2	-7,072	-51.9	1
Rhode Island	17,824	0.5	13,057	0.5	-4,767	-26.7	26
Vermont	6,857	0.2	5,358	0.2	-1,499	-21.9	35
Total	154,955	3.9	89,127	3.2	-65,828	-42.5	
Mid-Atlantic							
Delaware	15,096	0.4	11,452	0.4	-3,644	-24.1	28
Maryland	114,040	2.9	88,458	3.1	-25,582	-22.4	34
New Jersey	86,749	2.2	43,054	1.5	-43,695	-50.4	2
New York	137,163	3.5	79,436	2.8	-57,727	-42.1	8
Pennsylvania	138,772	3.5	77,352	2.8	-61,420	-44.3	5
Total	491,820	12.5	299,752	10.7	-192,068	-39.1	
Midwest							
Illinois	114,881	2.9	75,413	2.7	-39,468	-34.4	14
Indiana	60,335	1.5	34,134	1.2	-26,201	-43.4	6
Iowa	23,195	0.6	17,749	0.6	-5,446	-23.5	32
Michigan	70,378	1.8	35,738	1.3	-34,640	-49.2	3
Minnesota	36,346	0.9	26,084	0.9	-10,262	-28.2	23
Ohio	108,210	2.8	69,333	2.5	-38,877	-35.9	13
Wisconsin	37,105	0.9	26,184	0.9	-10,921	-29.4	20
Total	450,450	11.4	284,635	10.1	-165,815	-36.8	
South							
Alabama	97,415	2.5	61,389	2.2	-36,026	-37.0	12
Arkansas	37,183	0.9	24,717	0.9	-12,466	-33.5	16
District of Columbia	42,533	1.1	37,161	1.3	-5,372	-12.6	Not rated
Florida	171,235	4.4	135,050	4.8	-36,185	-21.1	36
Georgia	145,239	3.7	134,517	4.8	-10,722	-7.4	48
Kentucky	78,485	2.0	59,696	2.1	-18,789	-23.9	29
Louisiana	66,986	1.7	51,138	1.8	-15,848	-23.7	31
Mississippi	54,463	1.4	43,801	1.6	-10,662	-19.6	40
North Carolina	149,690	3.8	142,801	5.1	-6,889	-4.6	50
Oklahoma	91,781	2.3	65,992	2.3	-25,789	-28.1	24
South Carolina	98,576	2.5	71,382	2.5	-27,194	-27.6	25
Tennessee	55,459	1.4	34,271	1.2	-21,188	-38.2	11
Texas	291,776	7.4	232,020	8.3	-59,756	-20.5	38
Virginia	254,097	6.5	206,827	7.4	-47,270	-18.6	42
West Virginia	15,517	0.4	13,326	0.5	-2,191	-14.1	46
Total	1,650,435	42.0	1,314,088	46.7	-336,347	-20.4	

Summary Table 2. Levels, Changes, and Ranks for Total U.S.-based Defense Department Personnel, 1987-2002

Northeast-Midwest Institute, April 2005

State or Region	Total ¹ 1987	Percent of Total 1987	Total ¹ 2002	Percent of Total 2002	Change in Total 1987-2002	Percent Change in Total 1987-2002	Rank for Percent Drop in Total
West							
Alaska	33,819	0.9	25,815	0.9	-8,004	-23.7	30
Arizona	56,106	1.4	48,667	1.7	-7,439	-13.3	47
California	474,802	12.1	274,471	9.8	-200,331	-42.2	7
Colorado	76,871	2.0	60,752	2.2	-16,119	-21.0	37
Hawaii	78,504	2.0	62,597	2.2	-15,907	-20.3	39
Idaho	15,196	0.4	12,592	0.4	-2,604	-17.1	43
Kansas	52,281	1.3	36,899	1.3	-15,382	-29.4	21
Missouri	77,230	2.0	52,823	1.9	-24,407	-31.6	18
Montana	13,192	0.3	10,724	0.4	-2,468	-18.7	41
Nebraska	30,251	0.8	19,917	0.7	-10,334	-34.2	15
Nevada	18,203	0.5	17,129	0.6	-1,074	-5.9	49
New Mexico	37,813	1.0	25,918	0.9	-11,895	-31.5	19
North Dakota	20,588	0.5	14,688	0.5	-5,900	-28.7	22
Oregon	23,545	0.6	18,243	0.6	-5,302	-22.5	33
South Dakota	15,568	0.4	10,430	0.4	-5,138	-33.0	17
Utah	45,202	1.1	33,680	1.2	-11,522	-25.5	27
Washington	108,179	2.7	90,276	3.2	-17,903	-16.5	44
Wyoming	9,254	0.2	7,731	0.3	-1,523	-16.5	45
Total	1,186,604	30.2	823,352	29.3	-363,252	-30.6	
Northeast	646,775	16.4	388,879	13.8	-257,896	-39.9	
Midwest	450,450	11.4	284,635	10.1	-165,815	-36.8	
Northeast and Midwest	1,097,225	27.9	673,514	24.0	-423,711	-38.6	
South	1,650,435	42.0	1,314,088	46.7	-336,347	-20.4	
West	1,186,604	30.2	823,352	29.3	-363,252	-30.6	
South and West	2,837,039	72.1	2,137,440	76.0	-699,599	-24.7	

¹Counts the Defense Department personnel in the United States for active duty military, reserve and National Guard forces, and civilian employees as of September 30.

²U.S. totals exclude foreign-based personnel, as well as personnel in Puerto Rico and the territories. The District of Columbia is included in the South.

Source: Northeast-Midwest Institute calculations based on data for active duty military and Defense Department civilian employees from the Department of Defense, Directorate for Information Operations and Reports, *Distribution of Personnel by State and Selected Location (M02)*, September 30, 1987, and September 30, 2002, and based on data for reserves and National Guard from Department of Defense, Directorate for Information Operations and Reports, *Atlas/Data Abstract for the United States and Selected Areas*, fiscal years 1987 and 2002.

**Statement by
The Hon. Rob Simmons
Member of Congress, CT/2
BRAC Commissioners' Site Visit
Naval Submarine Base New London
Groton, CT, Wednesday, June 1, 2005**

Chairman Principi, Commissioners and members of the staff of the BRAC Commission, thank you for coming to the Submarine Capitol of the World.

That is what we call it, that is what we believe it is, and that is what we want it to be now and into the future.

It is appropriate we are meeting in the Submarine Museum. There is no question in my mind that the military value of submarines is well displayed in this place, and that history continues to evolve in this unique center of excellence which unrivaled anywhere else in the world.

One year ago Navy Secretary England testified before the House Armed Services Committee on which I serve. I asked him if the BRAC process would evaluate the synergy that exists between our submarine base and all of the other subsurface maritime activities that are resident in this region. His response was:

“We certainly have to consider everything that is interconnected. In fact, one of the things we are looking for is jointness and interconnectivity, et cetera. So in a larger sense what you described is what we will be looking at as our criteria in the whole BRAC process. I believe that will all be considered, sir.

Mr. Chairman, I do not believe synergy was considered at all because if it was, there would be no logical reason to recommend closing SUBASE New London.

Allow me just a few minutes to point out some of the subsurface maritime assets that interconnect with the SUBASE in this region to make this the Submarine Capitol of the World.

1. **ELECTRIC BOAT**: The Electric Boat (EB) Division of General Dynamics

has been and is now the center for submarine design, development, production and maintenance. It is located just one mile down the Thames River, has been here for generations, and interacts with the SUBASE daily.

Every day some 500 EB workers from Connecticut and Rhode Island come into the SUBASE gates to perform maintenance, repair and other functions on our submarines.

RADM Mark Kenney recently commented on the synergy that exists between EB and the SUBASE when he said:

“We can get that synergy. We can flow work back and forth, we can train crews while they’re in maintenance availabilities here and we can keep the ships in this same geographic region. The synergy of the base, the yard, the submarine school, the squadrons, the waterfront, the weapons, they’re all here.”

At EB, generations of the world’s most skilled shipbuilders have designed, built and maintained every class of submarines here since the start of modern undersea warfare. EB employs over 11,000 workers at two principal locations:

A. The Groton shipyard has two major functions: first, submarine design and engineering; and second, submarine assembly, test and delivery. All EB design and engineering work takes place in Groton, supported by a network of modern digital design and analysis tools.

B. The Quonset Point Facility, forty minutes from Groton on the shore of Narragansett Bay, Rhode Island is where the construction of all Electric Boat submarines begins. Quonset Point produces submarine hull cylinders at its Automated Frame and Cylinder Manufacturing Facility, using a fraction of the manpower once required forming a traditional hull.

The benefits of co-location apply to submarine design and engineering, too. Naval officers regularly interact with the innovators of EB, telling them what works and what doesn’t underway. They are a source of ideas and a reality check during the development of tomorrow’s submarines.

The Navy’s next submarine will almost certainly be designed at Electric Boat in Groton because this is the only place in the country that has those capabilities. EB

will incorporate in its blueprints the knowledge and wisdom of actual submariners – both active and retired.

2. **SUBMARINE INDUSTRIAL BASE:** Hundreds of other southern New England businesses feed into the submarine industry. The Submarine Industrial Base Council estimates 568 Connecticut suppliers for the Virginia-class program alone. Rhode Island has 150. In fact; more than 60 percent of our nation's undersea warfare work is performed in southern New England. My colleague and good friend, Rep. Jim Langevin of Rhode Island, wisely noted last week that "the combination of these factors simply cannot be replicated elsewhere with the same record of achievement."

3. **NAVAL UNDERWATER WARFARE CENTER (NUWC):** This is the Navy's full-spectrum research, development, test and evaluation, engineering and fleet support center for submarines, autonomous underwater systems, and offensive and defensive weapons systems associated with undersea warfare.

4. **ACADEMIC INSTITUTIONS:** The Marine Sciences Department of the University of Connecticut at Avery Point, the Coast Guard Research and Development Center at Avery Point, the Marine Sciences Department of the University of Rhode Island, the Coast Guard Academy, Eastern Connecticut State University and Yale University are just a few of the academic resources located within 50 miles of the SUBASE New London which contribute to the synergy of subsurface excellence which is a national asset. Also within reasonable driving distances are the Marine Sciences Department of the University of Massachusetts, Woods Hole Oceanographic Institute, Harvard University and MIT. All of these have very specialized and high quality undersea research and training programs. In addition, the Coast Guard Academy conducts leadership training in homeland security for Cadets, Officers and Enlisted personnel.

5. **MYSTIC AQUARIUM'S INSTITUTE FOR EXPLORATION:** Under the leadership of the legendary Dr. Robert D. Ballard, discoverer of the Titanic, the Institute for Exploration engages in cutting edge littoral and deep ocean exploration. Dr. Ballard's activities have provided missions for the Navy's NR-1 nuclear research submersible, and have extraordinary implications for American's national intelligence capabilities. We hope that the Commission will accommodate a detailed briefing on these activities in the future.

In October 14, 2004, Michael W. Wynne signed a memorandum regarding the BRAC 2005 Military Value Principles. A close examination of the role of Naval

Submarine Base New London as the hub of a center of excellence for subsurface warfare in New England reflects these military value principles and should make the case for keeping the base open. A detailed analysis of these synergistic components will be forthcoming in subsequent hearings when the Department of Defense releases additional data relative to their base closure decisions.

I am blessed to live in a community which for almost 100 years has visualized, designed, developed, built, deployed, based, repaired and maintained the most complicated machines ever built and operated by mankind – U.S. Navy Submarines. And their work goes on. And their work has in the past given us control of the subsurface battlefield.

The future is less clear. But one thing is certain. If we destroy this center of excellence by dismantling one of its most important components – the Naval Submarine Base New London – we place our sailors, our Nation and our Democracy at risk. This is not a wise choice.

In the words of The Hon. Duncan Hunter, Chairman of the House Armed Services Committee, on May 13, 2005, when he heard that SUBASE New London was listed for closure:

“I will continue to ...emphasize the importance of the collocation of the base with the nation’s premier submarine construction facility. This interchange between operators and builders is critical to the continued supremacy of our undersea fleet.”

Chairman Hunter was correct.

Now I am pleased to introduce Annapolis Graduate and Retired Submarine Captain John Markowicz to outline for you just some of the questions we have about the Department of Defense’s analysis of the our submarine base.

MICHAEL G. FITZPATRICK
8TH DISTRICT, PENNSYLVANIA

1515 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-4276

80 NORTH MAIN STREET
DOYLESTOWN, PA 16901
(215) 242-7511

ONE OXFORD VALLEY SUITE 600
LANGHOUME, PA 15047
(215) 752-7711

www.house.gov/fitzpatrick



Congress of the United States
House of Representatives
Washington, DC 20515-3808

May 9, 2005

COMMITTEE ON FINANCIAL SERVICES
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TAR, FINANCE, AND EXPORTS

BRAC 2005 Independent Commission
2521 S Clark St, Suite 600
Arlington, VA 22202-3909

Dear Members of the Commission,

I am writing today to express my support for the Willow Grove Joint Reserve Base in Horsham, Pennsylvania.

As stated by Secretary of Defense, the Base Realignment and Closure Commission is charged with the task of reviewing the status of our military installations in order to streamline operation costs, promote interservice cooperation and consolidate military assets. In doing so the commission will look at certain criteria that will define which installations are to be signaled for possible closure. These criteria include, cost, inter-service cooperation and expansion potential. I do not believe that Willow Grove meets the requirements for closure as set forth in the BRAC guidelines for the following reasons.

First, one of the major issues related to Department of Defense force transformation includes the need for "jointness," or the ability to base, train and deploy forces from different service branches together. Willow Grove is the largest joint force base in the United States and the only major joint reserve base in Pennsylvania.

The base is home to the Army, Navy, Air Force, Marines and Air National Guard. Willow Grove's close proximity to Philadelphia, Baltimore, New York and New Jersey provides reservists an easily accessible base to fulfill their training requirements. The base is also home to Pennsylvania's oldest flying unit, the 111th Fighter Wing that was recently deployed in Iraq and Afghanistan.

Second, Willow Grove has room to expand within its current "footprint" in the community. While the other branches have been increasing their operational tempo, the Navy has begun to move aircraft off base either to active duty units or to other squadrons that need the planes for current combat operations. This allows room for expansion on the base by the Air Force into areas formerly used by the Navy.

Third, Willow Grove has a proven history of emergency preparedness and can accommodate contingency, mobilization, surge and total force requirements. After the September 11th attacks, Willow Grove took on first responders from the Department of Environmental Protection and became a training area for homeland security preparedness. The Federal Emergency Management Agency named the base an "alternate regional operations center," which was activated and used during the 2000 Republican National Convention in Philadelphia and shortly after 9/11. Additionally, Willow Grove supports an 8,000 foot runway, which can facilitate military and large commercial aircraft. Given its close proximity to Philadelphia, Washington, DC, New York and Baltimore, Willow Grove could easily land aircraft diverted from their major airports in case of emergency. The base is currently used by Air Force One during presidential trips to the region and could place military assets into the air to patrol the region during a possible attack.

Finally, I believe that closing Willow Grove will have a significant negative economic impact on the surrounding community. According to a local consulting firm, Willow Grove maintains 10,724 jobs and creates \$378 million worth of local economic activity per year. Closure of the base would heavily affect the community, especially since it is located very close to the former Naval Air Warfare Center in Warminster, PA that was closed during the 1995 BRAC round. Only recently has the community surrounding the NAWC begun to revitalize. Closing Willow Grove would not only hurt the off-base community, but further imperil Warminster.

Willow Grove Joint Reserve Base is an outstanding asset to the United States Department of Defense as well as to the community. For the above stated reasons, I do not believe that recommending Willow Grove, JRB for closure will be an advantageous move for the Department of Defense. I am more than willing to provide supporting materials if requested. Additionally, I am available to speak to any of the commissioners once the recommendation list becomes public this week. Please contact Mr. Jeff Urbanchuk on my staff to schedule an appointment at (202) 225-4276. Thank you very much and I look forward to working with you in the future.

Sincerely,



MICHAEL G. FITZPATRICK
Member of Congress

MF/JU

Congress of the United States
Washington, DC 20515

May 25, 2005

The Honorable James H. Bilbray
BRAC Commission
521 South Clark Street
Suite 600
Arlington, VA 22202

Dear Commissioner Bilbray:

During the BRAC Commission's May 17 hearing with Navy officials, Chief of Naval Operations Admiral Vernon Clark made two statements in need of correction.

First, Admiral Clark stated that the capacity in private shipyards was a consideration in the Defense Department's determination that there was excess capacity among the four public U.S. Navy shipyards.

We were shocked to hear this, as we are unaware that capacity in the private sector has ever been a legal or legitimate consideration in the Department's BRAC data collection and analysis processes. To our knowledge, there have been no data calls under the BRAC process of the nation's private sector nuclear shipyards. Without such data, there can be no proper analysis comparable to what was applied to the public shipyards. Without such analysis, we challenge the legitimacy of including private shipyards in the justification for reducing public shipyard infrastructure.

Second, Admiral Clark cited the end of the refuelings of Los Angeles class submarines as a justification to close the Portsmouth Naval Shipyard (PNSY). This reasoning is not supported by the facts. Significant maintenance requirements remain on the second flight of Los Angeles class submarines. The first two (of thirty-one) Engineered Overhauls (EOH) are currently in execution at Portsmouth. An EOH work package constitutes approximately 240,000 mandays, or more than two thirds the size of an Engineering Refueling Overhaul (ERO, at 330,000 mandays). PNSY is scheduled to conduct seven EOHs by 2011, which is the equivalent of more than five EROs. PNSY would perform about two EOHs per year between 2012 and 2018 if the Navy distributes workload evenly among the four public shipyards.

PNSY is also scheduled to perform Depot Modernization Periods (DMPs, 180,000 mandays), Selected Restricted Availabilities (SRAs), Interim Drydocking Availabilities (IDDs), Pre-Inactivation Restricted Availabilities (PIRAs), and Inactivations on Los Angeles class submarines. SeaWolf and Virginia class submarine maintenance has also been assigned to Portsmouth beginning in 2011.

BRAC, shipyard clarifications, p. 2

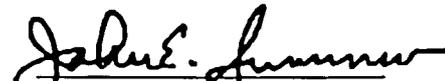
We urge your consideration of our clarification of the facts as the Commission reviews the military value of the Portsmouth Naval Shipyard.

Sincerely,


OLYMPIA J. SNOWE
United States Senator

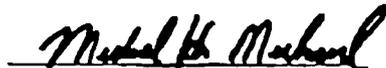

JUDD GREGG
United States Senator

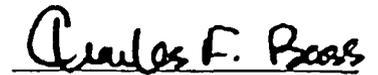

SUSAN M. COLLINS
United States Senator


JOHN E. SUNUNU
United States Senator


JEB BRADLEY
United States Representative


TOM ALLEN
United States Representative


MICHAEL MICHAUD
United States Representative


CHARLES BASS
United States Representative

Congress of the United States
Washington, DC 20515

May 25, 2005

General Lloyd Newton
BRAC Commission
521 South Clark Street
Suite 600
Arlington, VA 22202

Dear Commissioner Newton:

During the BRAC Commission's May 17 hearing with Navy officials, Chief of Naval Operations Admiral Vernon Clark made two statements in need of correction.

First, Admiral Clark stated that the capacity in private shipyards was a consideration in the Defense Department's determination that there was excess capacity among the four public U.S. Navy shipyards.

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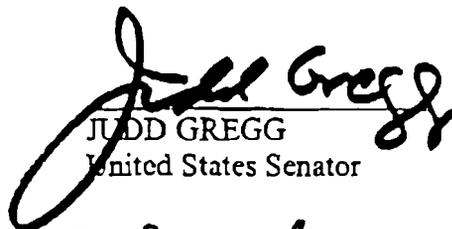
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BRAC, shipyard clarifications, p. 2

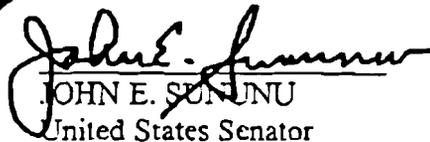
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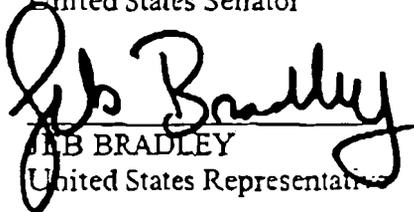
Sincerely,


OLYMPIA SNOWE
United States Senator


JUDD GREGG
United States Senator

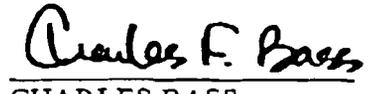

SUSAN M. COLLINS
United States Senator


JOHN E. SUNUNU
United States Senator


TOM BRADLEY
United States Representative


TOM ALLEN
United States Representative


MICHAEL MICHAUD
United States Representative


CHARLES BASS
United States Representative

Congress of the United States
Washington, DC 20515

May 25, 2005

The Honorable Anthony J. Principi
Chairman, BRAC Commission
2521 S. Clark Street, Suite 600
Arlington, VA 22202

Dear Chairman Principi:

During the BRAC Commission's May 17 hearing with Navy officials, Chief of Naval Operations Admiral Vernon Clark made two statements in need of correction.

First, Admiral Clark stated that the capacity in private shipyards was a consideration in the Defense Department's determination that there was excess capacity among the four public U.S. Navy shipyards.

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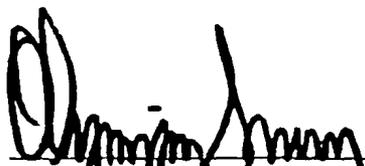
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BRAC, shipyard clarifications, p. 2

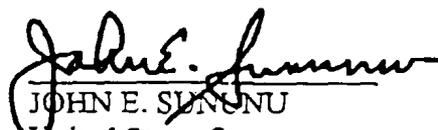
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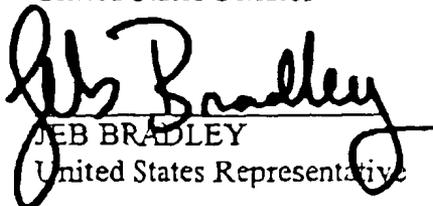
Sincerely,


OLYMPIA J. SNOWE
United States Senator


TODD GREGG
United States Senator

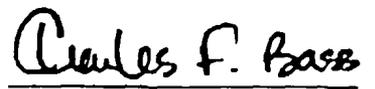

SUSAN M. COLLINS
United States Senator


JOHN E. SUNUNU
United States Senator


JEB BRADLEY
United States Representative


TOM ALLEN
United States Representative


MICHAEL MICHAUD
United States Representative


CHARLES BASS
United States Representative

Congress of the United States
Washington, DC 20515

May 25, 2005

Mr. Philip E. Coyle
BRAC Commission
521 South Clark Street
Suite 600
Arlington, VA 22202

Dear Commissioner Coyle:

During the BRAC Commission's May 17 hearing with Navy officials, Chief of Naval Operations Admiral Vernon Clark made two statements in need of correction.

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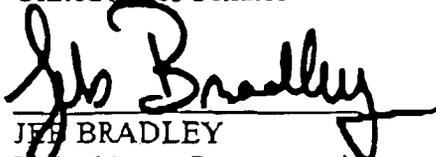
Sincerely,


OLYMPIA J. SNOWE
United States Senator


JUDD GREGG
United States Senator

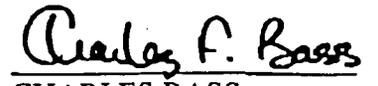

SUSAN M. COLLINS
United States Senator


JOHN E. SUNUNU
United States Senator


JEFF BRADLEY
United States Representative


TOM ALLEN
United States Representative


MICHAEL MICHAUD
United States Representative


CHARLES BASS
United States Representative

Congress of the United States
Washington, DC 20510

May 24, 2005

The Honorable Gordon England
Secretary of the Navy
1300 Navy Pentagon
Washington, DC 20350

Dear Secretary England,

We request that you provide the following information that was used in the Navy's determination to recommend the closure of Portsmouth Naval Shipyard at Kittery, Maine to the Base Realignment and Closure Commission:

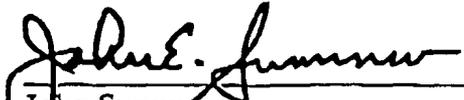
- A detailed breakdown of cost of closure assessments, including factors applied by COBRA in lieu of actual cost estimates.
- All options considered by the Chief of Naval Operations or Vice Chief of Naval Operations to reduce excess capacity in shipyards (including closure, realignment, workload shifts and private sector capacity).
- A detailed breakdown of cost of operations assessment, including shipyard and base costs.

We expect that this information be delivered to us no later than May 31, 2005.

Sincerely,


 Judd Gregg
 United States Senator


 Olympia Snowe
 United States Senator


 John Sununu
 United States Senator


 Susan Collins
 United States Senator


 Jeb Bradley
 Member of Congress


 Tom Allen
 Member of Congress


 Michael Michaud
 Member of Congress

Congress of the United States
Washington, DC 20510

May 25, 2005

The Honorable Phillip Coyle
Member, Base Realignment and Closure Commission
2521 South Clark Street Suite 600
Arlington, VA 22202

Dear Commissioner Coyle:

We wanted to take this opportunity to bring to your attention information in Volume IV of DoD's Base Closure and Realignment Report regarding Brunswick Naval Air Station (BNAS). The supporting documentation, particularly in regard to the estimated economic impact of realigning BNAS, can be noted on page C-11 of the Navy's Analyses and Recommendations.

The Navy's report notes that, over the period of 2006-2011, the realignment of BNAS would result in a reduction of 4,266 jobs in the Portland-South Portland-Biddeford Metropolitan Statistical Area (MSA), which would account for 1.29 percent of employment in the MSA. In describing the local impact of the loss of 4,266 jobs in terms of the Portland-South Portland-Biddeford Metropolitan Statistical Area (MSA), DoD included Brunswick in an MSA of which it is not a part. In fact, according to the definitions of Maine's labor market from the Maine Department of Labor, Brunswick is an independent Labor Market Area (LMA), defined by the United States Bureau of Labor Statistics as, "an economically integrated geographical area within which workers can reside and find employment within a reasonable distance or can readily change employment without changing their place of residence." Since Brunswick is not a part of the Portland-South Portland-Biddeford MSA, the Navy significantly underestimated the economic impact of realignment at BNAS in terms of jobs lost on the regional economy.

As the Pentagon has testified that it is willing to put the economic impact of its BRAC recommendations into any context requested by the Commission, we hope that you will request amended information from the Navy that demonstrates the truly detrimental effect the proposed realignment would have on the Brunswick LMA. We expect that closer scrutiny of the local market job loss on the Brunswick LMA will show that the impact would be vastly higher than the conservative estimate of 1.29 percent.

We would be happy to work closely with you and your staff in order to ensure that the BRAC Commission is receiving accurate data from DoD. Given the enormity of DoD's recommendation for BNAS, it is crucial that the Pentagon be honest with the Commission by providing data that represents the true economic impact of its proposals. As an additional resource, information about Maine's labor market definitions can be accessed at <http://www.maine.gov/labor/lmis/LaborMarketAreaDefinitionsChange.html>.

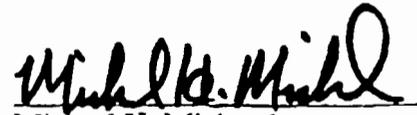
We appreciate all of your hard work in ensuring that the Pentagon's recommendations were formulated fairly, openly, and objectively. As you conduct your review, we hope that you will investigate this particular error of great concern to Maine and our nation.

Sincerely,


Olympia Snowe
United States Senator


Susan M. Collins
United States Senator


Tom H. Allen
Member of Congress


Michael H. Michaud
Member of Congress

- cc: Sec. Anthony Principi, Chairman, 2005 Defense Base Closure and Realignment Commission
- Hon. James Bilbray, Member
- Hon. Phillip Coyle, Member
- ADM Harold Gehman, USN (ret), Member
- Hon. James Hansen, Member
- Gen. James Hill, USA (ret), Member
- Gen. Lloyd Newton, USAF (ret), Member
- Hon. Samuel Skinner, Member
- Gen. Sue Ellen Turner, USAF (ret), Member

Congress of the United States
Washington, DC 20510

May 25, 2005

The Honorable Anthony Principi
Base Realignment and Closure Commission
Polk Building, Suites 600 and 625
2521 South Clark Street
Arlington, VA 22202

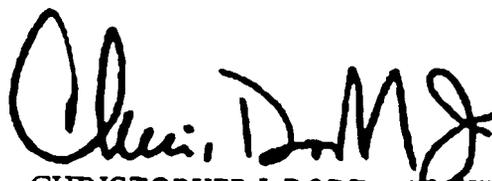
Dear Secretary Principi:

We want to welcome you and the other members of the BRAC Commission to New London for your visit to the submarine base on May 31, 2005. In addition to your tour, the Governor, Members of Congress, and local representatives are preparing to meet with you and your fellow Commissioners on June 1 at 9:00 am at the Nautilus submarine museum to discuss the New London Submarine Base and its value to our national security.

We appreciate that you have made time in your busy schedule for the meeting and we look forward to the meeting as we believe this will provide an important opportunity to exchange information about the New London facility and the vital role it plays in our nation's defense.

Please have your staff contact Fred Downey at (202) 224-4041 in Senator Lieberman's office, or Neal Orringer at (202) 224-2680 in Senator Dodd's office, or Justin Bernier at (202) 225-2076 in Representative Simmons' for additional information on the June 1 meeting.

Sincerely,

		
CHRISTOPHER J. DODD United States Senator	JOSEPH I. LIEBERMAN United States Senator	ROB SIMMONS United States Representative

SPEAKER'S PRESCRIPTION DRUG ACTION TEAM
LONG ISLAND SOUND CAUCUS
NATIONAL GUARD AND RESERVE
COMPONENTS CAUCUS
CONGRESSIONAL SPORTSMEN'S CAUCUS
CONGRESSIONAL TRAVEL AND TOURISM CAUCUS
PORT SECURITY CAUCUS
CONGRESSIONAL CAUCUS FOR WOMEN'S ISSUES



ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON PROTECTION FORCES
SUBCOMMITTEE ON
TACTICAL AIR AND LAND FORCES
TRANSPORTATION AND
INFRASTRUCTURE COMMITTEE
SUBCOMMITTEE ON RAILROADS
SUBCOMMITTEE ON HIGHWAYS AND TRANSIT
SUBCOMMITTEE ON COAST GUARD AND
MARITIME TRANSPORTATION
VETERANS' AFFAIRS COMMITTEE
SUBCOMMITTEE ON HEALTH
CHAIRMAN

May 2, 2005

CONGRESSMAN ROB SIMMONS
HOUSE OF REPRESENTATIVES
SECOND DISTRICT, CONNECTICUT

BG Sue Ellen Turner (Ret.)
BRAC Commission
Polk Building, Suites 600 and 625
2521 South Clark Street
Arlington, VA 22202

Dear General Turner:

I would like to bring to your attention the enclosed report of the Northeast-Midwest Institute, "Base Closings and Military Presence in the Northeast-Midwest: The Nation's Unguarded Region." The report highlights the terrorism hazard of additional base closures in the Northeast-Midwest region of the United States. I urge you to duly consider the military value of bases to homeland security as you prepare your Base Realignment and Closure Commission recommendations to the president.

Over the last four rounds of base closings, the Northeast-Midwest region has sustained deep personnel and infrastructure reductions that have created a military void in the nation's region most vulnerable to terrorism. Although it holds almost 40 percent of the nation's population and accounts for more than 40 percent of its annual economic output, the Northeast-Midwest region has just ten percent of the U.S.-based active duty military personnel. Population centers and industrial hubs, we know, are the most likely target of future terrorist attacks.

Since 1987, the Northeast-Midwest has lost 41 percent of its active duty military compared with just 21 percent for the rest of the country. Additional cuts in the region would further erode our military's ability to respond to terrorist attacks. Lessons from the April 2005 "TOPOFF 3" exercise, which simulated terrorist incidents originating in New London, Connecticut - home of Submarine Base New London - indicate the homeland security value of proximate military facilities.

The BRAC 2005 criteria require you to weigh heavily the military value of bases considered for closure and realignment. As a Subcommittee Chairman of the Homeland Security Committee and a Vice Subcommittee Chairman on the Armed Services Committee, I frequently consider the value of bases to the security of the urban, industrialized Northeast-Midwest region in this age of catastrophic terrorism. I urge you to do the same as you execute your BRAC responsibilities.

All the best,


Rob Simmons
Member of Congress
Second District, Connecticut

215 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-2076

2 COURTHOUSE SQUARE
NORWICH, CT 06360
(860) 886-0139

37-39 PEARL STREET
ENFIELD, CT 06082
(860) 741-4053

SPEAKER'S PRESCRIPTION DRUG ACTION TEAM
LONG ISLAND SOUND CAUCUS
NATIONAL GUARD AND RESERVE COMPONENTS CAUCUS
CONGRESSIONAL SPORTSMEN'S CAUCUS
CONGRESSIONAL TRAVEL AND TOURISM CAUCUS
PORT SECURITY CAUCUS
CONGRESSIONAL CAUCUS FOR WOMEN'S ISSUES



ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON PROJECTION FORCES
SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES
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SUBCOMMITTEE ON COAST GUARD AND MARITIME TRANSPORTATION
VETERANS' AFFAIRS COMMITTEE
SUBCOMMITTEE ON HEALTH
CHAIRMAN

May 2, 2005

CONGRESSMAN ROB SIMMONS
HOUSE OF REPRESENTATIVES
SECOND DISTRICT, CONNECTICUT

General Lloyd Newton (Ret.)
BRAC Commission
Polk Building, Suites 600 and 625
2521 South Clark Street
Arlington, VA 22202

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All the best,

[Signature]
Rob Simmons
Member of Congress
Second District, Connecticut

215 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-2076

we are so pleased that you are serving on the BRAC Commission

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CHAIRMAN

May 2, 2005

CONGRESSMAN ROB SIMMONS
HOUSE OF REPRESENTATIVES
SECOND DISTRICT, CONNECTICUT

The Honorable Samuel K. Skinner
BRAC Commission
Polk Building, Suites 600 and 625
2521 South Clark Street
Arlington, VA 22202

Dear Secretary Skinner: *Sam:*

I would like to bring to your attention the enclosed report of the Northeast-Midwest Institute, "Base Closings and Military Presence in the Northeast-Midwest: The Nation's Unguarded Region." The report highlights the terrorism hazard of additional base closures in the Northeast-Midwest region of the United States. I urge you to duly consider the military value of bases to homeland security as you prepare your Base Realignment and Closure Commission recommendations to the president.

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May 2, 2005

CONGRESSMAN ROB SIMMONS
HOUSE OF REPRESENTATIVES
SECOND DISTRICT, CONNECTICUT

General James T. Hill (Ret.)
BRAC Commission
Polk Building, Suites 600 and 625
2521 South Clark Street
Arlington, VA 22202

Dear General Hill:

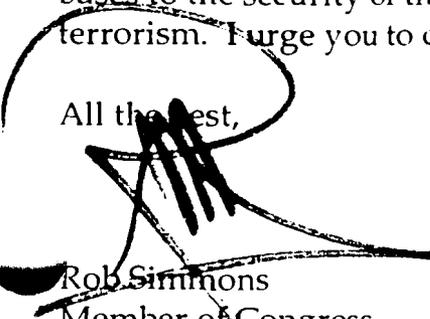
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May 2, 2005

CONGRESSMAN ROB SIMMONS

HOUSE OF REPRESENTATIVES

SECOND DISTRICT, CONNECTICUT

Admiral Harold W. Gehman (Ret.)
BRAC Commission
Polk Building, Suites 600 and 625
2521 South Clark Street
Arlington, VA 22202

Dear Admiral Gehman:

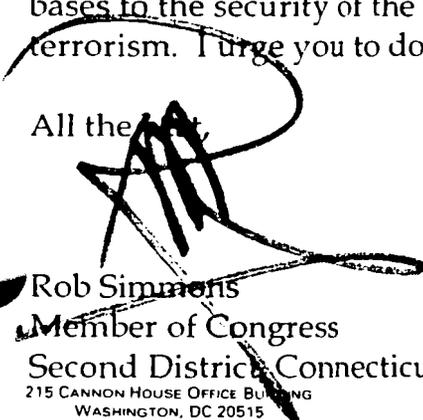
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May 2, 2005

CONGRESSMAN ROB SIMMONS
HOUSE OF REPRESENTATIVES
SECOND DISTRICT, CONNECTICUT

The Honorable Philip Coyle
BRAC Commission
Polk Building, Suites 600 and 625
2521 South Clark Street
Arlington, VA 22202

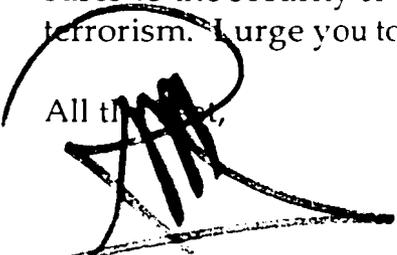
Dear Secretary Coyle:

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All this,


Rob Simmons
Member of Congress
Second District, Connecticut

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CONGRESSMAN ROB SIMMONS

HOUSE OF REPRESENTATIVES
SECOND DISTRICT, CONNECTICUT

The Honorable James V. Hansen
BRAC Commission
Polk Building, Suites 600 and 625
2521 South Clark Street
Arlington, VA 22202

Dear Representative Hansen:

I would like to bring to your attention the report titled "Closing and Military Presence" which highlights the terrorism threat in the Northeast and Midwest regions of the United States. I urge you to prepare your Base Realignment

*Northeast
mid West*

and Midwestern regions of the United States. I urge you to prepare your Base Realignment report to the president.

Over the last four rounds of base realignment, the Northeast and Midwest regions have been the most vulnerable to terrorism. Although they account for more than 40 percent of its active military personnel and infrastructure resources, they account for only 10 percent of the U.S.-based active military personnel. We know, are the most likely target of future terrorist attacks.

The Northeast and Midwest regions have sustained deep cuts in the nation's region most densely populated and accounts for 10 percent of the U.S.-based active military personnel. We know, are the most likely target of future terrorist attacks.

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All the best,

RS
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Member of Congress
Second District, Connecticut
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Thanks for serving on the BRAC Commission.

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May 2, 2005

CONGRESSMAN ROB SIMMONS
HOUSE OF REPRESENTATIVES
SECOND DISTRICT, CONNECTICUT

The Honorable Anthony Principi
BRAC Commission
Polk Building, Suites 600 and 625
2521 South Clark Street
Arlington, VA 22202

Dear Secretary Principi:

Danny!

I would like to bring to your attention the enclosed report of the Northeast-Midwest Institute, "Base Closings and Military Presence in the Northeast-Midwest: The Nation's Unguarded Region." The report highlights the terrorism hazard of additional base closures in the Northeast-Midwest region of the United States. I urge you to duly consider the military value of bases to homeland security as you prepare your Base Realignment and Closure Commission recommendations to the president.

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Thanks in history.

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A QUESTIONING OF THE DETERMINATION OF MILITARY VALUE

In the preparation of the Navy proposals, the single most important piece of data may be the relative military value (MV) determined for each of the bases. These values, along with capacity analysis valuations, are the feedstock to the configuration analysis (CA), and to the extent they are incorrectly formulated, can make the CA and all that follows in the BRAC evaluation process meaningless.

The assignment in the MV exercise of a single numeric value to each base implies the result of an objective process. This is not true. There were many steps in the valuation process in which the value was susceptible to the “thumb-on-the-scales” at worst and lack of relevance at best. Specifically:

1. Selection of the questions – determines which areas are to be considered, and equally important, which areas are omitted from consideration.
2. Wording of the questions – critical; the inclusion or exclusion of even one or two words can drive the end product.
3. Weighting – can drive the product in the desired direction and to a desired answer.
4. Analyst adjustment – non-linear and can produce a desired answer at the discretion of the analyst.

All of the above subjective elements are represented in the questions which were scored to determine Military Value. Out of a possible 100 assignable points, the range of results run from 30.82 to 74.50, with a median of 48.21 and a standard deviation of 10.97. No confidence levels or other statistical measures of reliability of the evaluation are provided, but given the relatively tight range of results (34 points) against a standard deviation of 10.97, it is fair to say the MV evaluation for BRAC 2005 is not statistically reliable. The same general characteristics, for example, if applicable to standardized IQ tests would argue that an IQ of 90 was essentially the same as 120. In actuality, for IQ tests, that range represents about three standard deviations. Results like these speak in qualitative terms to the poor quality of the questions posed, the scoring of the questions, and the comparative relative values assigned. These issues are detailed as follows:

GENERAL QUESTIONS/COMMENTS

1. Use of Cruiser Equivalent Length (CGE) is an attempt at a “one size fits all” approach to measuring berthing capacity. In use, it can be misleading and is subject to manipulation
ex: 10 piers, each 70 feet = 700 feet = 1 CGE
Useless in evaluating berthing capability other than for small boats

ex: Max CGE derived from arbitrary rule requiring use of nesting, though some types of ships do not normally nest. Results in exaggerated
-

capability. ex: Kings Bay CGE 13.5 impossible to berth and support 13 TRIDENT subs at Kings Bay.

In comparing capabilities of two similar function bases, why was berthing capability for the specific type ships involved not counted? That is, the better question would be how many SSNs or SSBNs can be berthed and supported under normal circumstances?

2. Jointness - Does not appear in any question, yet is to be a major consideration of the selection criteria. Was it considered in any stage of the calculation of MV?
3. Homeland defense – same questions as 2. above
4. Average MV of Bases – closure of lower scoring bases raises the average MV of remaining bases. True but irrelevant. Why was no calculation made, using the same questions, of the increase in MV of the receiving site of a recommended action?

Ex: adding 6 SSNs to Kings Bay does not increase the MV of Kings Bay since it is not a change of CGE. No questions ask how many ships; a yes answer could mean 1 ship or 20 ships, masking the clear advantage of higher capacity.

Ex: Adding Sub School to Kings Bay does not significantly change the MV of Kings Bay since only a single question addresses the capacity of training, and then only of “C”, “F” and pipeline schools. The max credit for the question is only 1.85 points.

Ex: Adding 11 SSNs to Norfolk does not change the MV of Norfolk. No change in CGE.

5. The judgment of an analyst was used in 78% of the questions/scoring. “analyst will apply a function for zero credit to maximum credit” What guidelines were given to the analyst? What quality control measures were taken to assure consistency in application of any guidelines?
6. Why was there no comparison of the normal utilization rate of piers/wharves with the calculated CGEs?

Ex: a base normally utilizes pier space to berth and support 8 DDs. Max normal capability is 12 DDs. But under the rules, CGE may equal 18 CGE. Which is the better determination of excess capacity?

7. Following calculation, how was MV actually used in determining closure recommendations?

Operational Infrastructure Questions

SEA 1 CGE is a specific rating of capacity. How did the analyst award points?

ex:	CGE Earle	8	score 1.11
	CGE Kings Bay	13.5	score 1.15
	CGE New London	16.25	score 1.23

With 2X as much berthing, New London scored only 0.12 over Earle

With 20% more berthing, New London scored only 0.08 over Kings Bay

These examples demonstrate something other than linear scoring, but there is no clear pattern of value assignment. DoD has not explained the directions given to analysts and the quality control procedures used.

SEA 2 What is the basis for a bonus of up to 4.15 points for a capability of berthing nuclear aircraft carriers? Only one other type ship (SSBN) was considered by type. What is the purpose of the words "cold iron status"? On the east coast, there are only two carrier qualified ports, and of those, Mayport is not certified for nuclear carriers. Was this wording included to increase the value of Mayport by considering nuclear carriers with shut down nuclear power plants?

SEA 3 Why was this question worded to include the nuclear weapons handling capability? Was it directed solely at Kings Bay, since no other port on the east coast can meet this requirement? What justifies a weight of 4.15 points? This score = 6.5% of total MV of Kings Bay

SEA 4 How did the analyst adjust the linear feet of berthing to compute scores?

Ex: New London	16.25 CGE	0.0 score
Kings Bay	13.5 CGE	1.69 score

SEA 5 Since New London received no points for its piers in SEA 4 above, how did the analyst adjust linear feet of piers new since 1990 to give New London a score of 1.01 and Kings Bay a score of 0.88?

SEA 6 How does an internet capability at the pier justify a maximum score of 2.0 points? This, for example, equals the points for berthing a nuclear carrier at Mayport.

SEA 7 How is maximum capacity Index for Maintenance calculated and adjusted by the analyst?

Ex: Kings Bay receives the highest point score of all bases with the exception of the shipyards at Portsmouth and Norfolk, yet maintains less than 8 subs.

SEA 11 What is the importance of the distance to a deperming facility? What is the frequency of deperming a ship?

SEA 13 Why is there no credit for a port which does not require specialized security/emergency services? Is this question biased towards CVNs and SSBNs only?

SEA 14 and 15 Why were these questions deleted late in the process? They appear to be worthy questions. Where did the IEG assign credit and how was it incorporated and scored in MV?

SEA 16 Why is this question biased towards SSBNs? Why is there not a penalty for requiring very large ESQDs?

Operational Training

1. Why are 9 out of 11 scored questions concerned solely with the distance to facilities/areas?
2. Why do only questions SEA24 and 30 consider throughput, i.e. capacity of training?

SEA 22 Why was this question deleted? Where did the IEG assign credit and how was it incorporated and scored in MV?

SEA 24 Why did this question include the words “schools located within 50 miles”? No other question permitted a base to take credit for facilities located 50 miles away and possibly on another base.

ex: Kings Bay can score for facilities at NAS Jacksonville and, possibly, NS Mayport.

Why are only “C”, “F” and pipeline schools considered? Why is the capacity for basic school not considered? Does this question deliberately bias against New London with its large sub school?

ex: There is no training credit for much of sub school capability

SEA 25 and 26 Why do these questions add value to a submarine base when there is no relevance in distance to AAW and gunnery ranges?

SEA 29 Based on usage frequency of a submarine training range, what is the justification for a max score of 3.15 points?

Why does a surface base get value from the distance to a sub training range? Mayport score 1.89 New London score 0.0 Is this bias against New London?

Port Characteristics Questions

SEA 32 What was the distance to the 50 fathom curve for each of the sub bases and how did the analyst adjust for scores?

What is the relevance to bases/stations which do not berth subs?

ex: Ingleside	score 1.13
New London	score 0.0

SEA 33 What is the relevance of aircraft carriers ability to transit the harbor channel to Sub Base Bangor? Bangor score 2.08

SEA 34a Question was deleted for non-availability of data from some activities. Why was the data which was available not used?

SEA 38 How was this question scored and adjusted by the analyst?

ex: Kings Bay requires annual maintenance dredging, New London does not, yet scoring was the same

SEA 43 What is the relevance of distance as opposed to a factor such as time from order to receipt?

Environment and Encroachment

ENV 1 Why is no credit given for not requiring annual dredging?

ex: Kings Bay requires annual dredging but has a disposal site. New London does not require dredging. Kings Bay scores 2X New London

ENV 2 Why is no credit given for not requiring very large ESQD arcs? Is this question biased towards SSBNs?

ENV 7 How was this question answered and scored by analyst?

ex: 7a. (40%) Kings Bay has manatees (endangered) in harbor
7c. (20%) Kings Bay has whale calving grounds astride
departure path to sea

Kings Bay score 0.86 New London score 1.15

Personnel Support

PS 1 Why is the word “military” included? What is significance of being in catchment area for another base’s facility? Why is distance to nearest hospital not considered? What justifies the max weight assigned?

ex: 1.01 points versus 0.73 for the entire list of support facilities such as Commissary, Exchange, Family Service Center, etc.

PS 2 With 50% of the question based on housing wait time, how was the question answered and adjusted by the analyst?

ex: wait time at Kings Bay 13 months, at New London essentially none, yet score were 2.08 and 2.14 out of 2.5 possible

Additional Questions

1. What consideration was given to the very large standard deviation value when comparing MV of the bases and making closure decisions?
2. Given the closeness of the MVs of Mayport and NewLondon, was consideration given to closing Mayport and thus eliminating twice as much “excess capacity”?
32.5 CGE vs 16.25 CGE
3. Did configuration constraints require one SSBN base per coast?