NAVAL POSTGRADUATE SCHOOL

Monterey, California

THESIS

BUDGET REDUCTION IN THE NAVY

by

James C. Workman
and
Ricky L. Williamson

December 1990

Thesis Advisor: Lawrence R. Jones

Approved for public release; distribution is unlimited

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED	1b RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution is unlimited.
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S)	5. MONITORING ORGANIZATION REPORT NUMBER(S)
6a. NAME OF PERFORMING ORGANIZATION Naval Postgraduate School 6b. OFFICE SYMBOL (*If applicable*) 36	7a. NAME OF MONITORING ORGANIZATION Naval Postgraduate School
6c ADDRESS (*City, State, and ZIP Code*) Monterey, CA 93943-5000	7b. ADDRESS (*City, State, and ZIP Code*) Monterey, CA 93943-5000
8a. NAME OF FUNDING/SPONSORING ORGANIZATION 8b OFFICE SYMBOL (*If applicable*)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c ADDRESS (*City, State, and ZIP Code*)	10 SOURCE OF FUNDING NUMBERS Program Element No / Project No / Task No / Work Unit Accession Number
11 TITLE (*Include Security Classification*) Budget Reduction in the Navy	
12 PERSONAL AUTHOR(S) Workman, James C. and Williamson, Ricky L.	
13a TYPE OF REPORT Master's Thesis 13b TIME COVERED From To	14 DATE OF REPORT (*year, month, day*) 1990, December 15 PAGE COUNT 103
16 SUPPLEMENTARY NOTATION The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.	
17 COSATI CODES FIELD / GROUP / SUBGROUP	18 SUBJECT TERMS (*continue on reverse if necessary and identify by block number*) Budget Reduction, Appropriation Analysis

19 ABSTRACT (*continue on reverse if necessary and identify by block number*)

This thesis attempts to document and analyze budget and program reductions made by the Navy for fiscal years 1990, 1991 and beyound. Current and historical budget data were obtained from the Office of the Secretary of Defense, the Office of the Chief of Naval Operations and the Comptroller of the Navy and organized to permit analysis of budget trends employing several models of cutback budgeting.

The thesis examines the following budgetary issues: (1) the trends and impact of budget cuts on DOD/DON appropriation accounts; (2) projected DOD/DON budget alternatives for FY 1992 through FY 1997; (3) the effect budget reductions have on the DOD/DON budget process; (4) the degree ef budgetary responsiveness in DOD/DON cutback budgeting to criteria developed from two theoretical models of fiscal reduction methodology.

20 DISTRIBUTION/AVAILABILITY OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS REPORT ☐ DTIC USERS	21 ABSTRACT SECURITY CLASSIFICATION Unclassified
22a NAME OF RESPONSIBLE INDIVIDUAL Lawrence R. Jones	22b TELEPHONE (*Include Area code*) (408) 646-2482 22c OFFICE SYMBOL AS/JN

DD FORM 1473, 84 MAR 83 APR edition may be used until exhausted
All other editions are obsolete

Approved for public release; distribution is unlimited.

BUDGET REDUCTION IN THE NAVY

by

James C. Workman
Lieutenant , United States Navy
B.S., University of Oregon, 1980

and

Ricky L. Williamson
Lieutenant , United States Navy
B.S., United States Naval Academy, 1985

Submitted in partial fulfillment
of the requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
December 1990

Authors: _____
James C. Workman

_____
Ricky L. Williamson

Approved by: _____
Lawrence R. Jones, Thesis Advisor

_____
Martin J. McCaffrey, Second Reader

_____
David R. Whipple, Chairman ,
Department of Administrative Sciences

ABSTRACT

This thesis attempts to document and analyze budget and program reductions made by the Navy for fiscal years 1990, 1991 and beyond. Current and historical budget data were obtained from the Office of the Secretary of Defense, the Office of the Chief of Naval Operations and the Comptroller of the Navy and organized to permit analysis of budget trends employing several models of cutback budgeting.

The thesis examines the following budgetary issues: (1) the trends and impact of budget cuts on DOD/DON appropriation accounts; (2) projected DOD/DON budget alternatives for FY 1992 through FY 1997; (3) the effect budget reductions have on the DOD/DON budget process; (4) the degree of budgetary responsiveness in DOD/DON cutback budgeting relative to criteria developed from two theoretical models of fiscal reduction methodology.

TABLE OF CONTENTS

I. INTRODUCTION

A. RATIONAL FOR RESEARCH

1. Background

Recent public and congressional pressure to reduce the federal budget deficit and to respond to changes in the international security environment have led to demands for reduction in the Department of Defense budget. Political events occurring throughout the world, particularly in Europe and the Persian Gulf, have raised questions concerning national security policy and the process used by the nation's leaders to choose the military force structure needed to carry out these policies. The current crisis in the Persian Gulf and changes in Eastern Europe, coupled with the prospect of further arms reductions, have led to calls by members of Congress for a reassessment of the Pentagon's spending plans. They want to ensure that the nation is, in the words of one influential defense lawmaker, "buying the right stuff."[Ref. 1] In conjunction with the changing threat, is the tide of rising federal budget deficits. Public clamor to reap the benefits of a "peace dividend", and the perception of a diminished role for the military in the 1990's, has added impetus to efforts to reduce future defense budgets.

Concern over the national deficit, which grew as high as 6.5% of the Gross National Product (figure 1) during the Reagan administration, has added to the call for reduced defense spending. For FY 1992 the budget deficit remains a highly visible political issue. The Office of Management and Budget, in it's July 1990 mid-year review, estimated the Fiscal 1991 deficit at $166 billion and other estimates range up to $250 billion.

Defense spending, after stabilizing at around half of the total federal spending in the late 1950's, has fluctuated and is now approximately 25 percent of the federal budget. Conversely, social

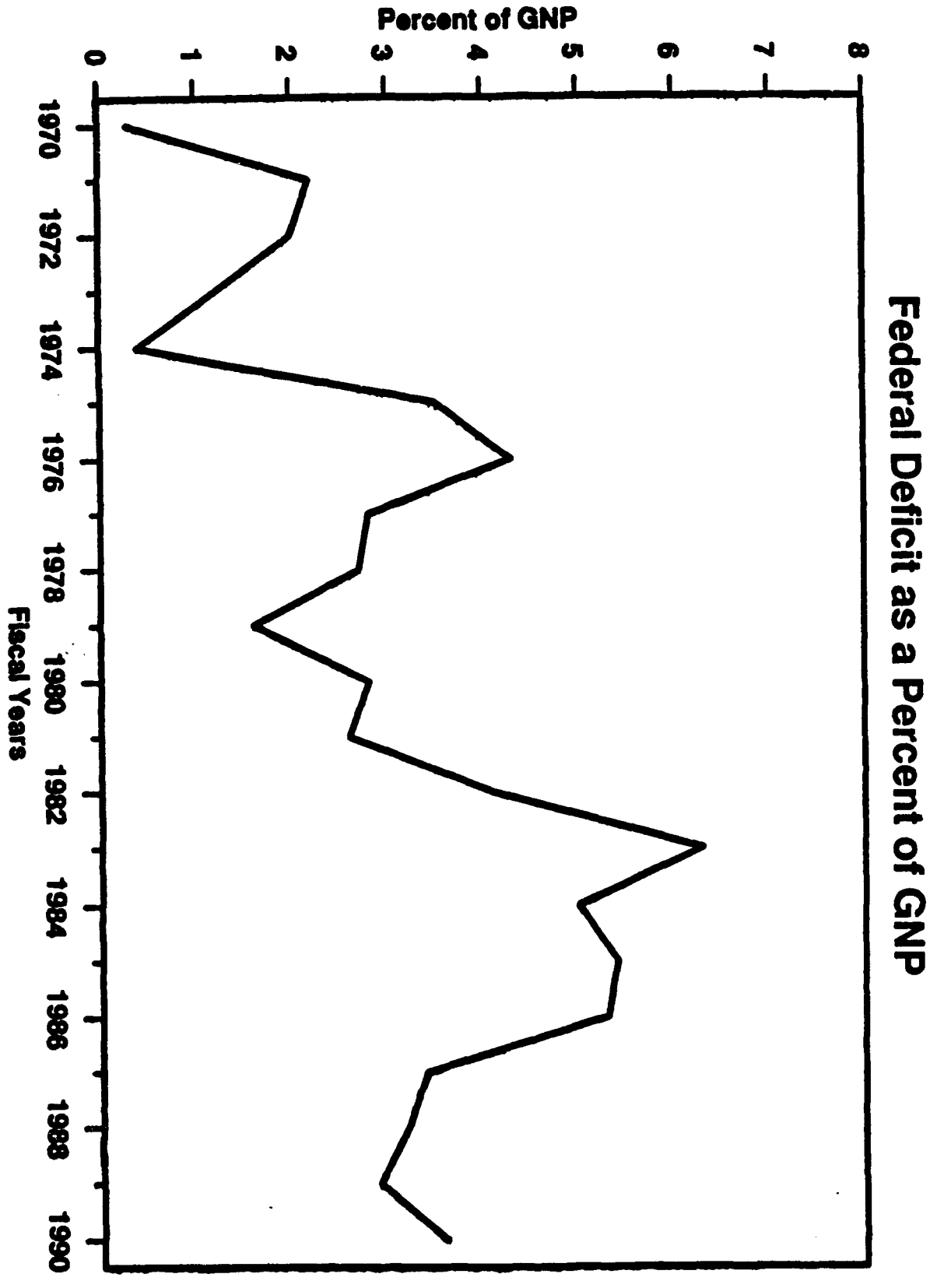

Figure 1. Federal Deficit as a Percent of GNP

welfare spending has risen from 25 percent of the federal budget in the late 1950's to its present portion of about 50 percent of the budget.[Ref. 2] (Figures 2 & 3) Despite it's diminishing relative size as an element of the federal budget, defense spending bears greater congressional scrutiny and intervention than it did in the 1950's.

Why does the defense budget undergo so much scrutiny? In the late 1950's most of the federal budget was approved annually under annual appropriations acts. Today, some 46 percent, nearly half the budget, is devoted to entitlements.[Ref. 3] Defense comprises the largest portion of "discretionary" spending, that portion of the budget which is approved in the annual appropriations process. In 1990 it comprised percent of discretionary spending. Therefore, it is easy to understand that many legislators take a keen interest in the DOD budget. One of their greatest opportunities to generate pork barrel legislation for their districts and to gain television exposure is via criticism of the defense budget.

For example, Representative Leon Panatta has lead the Democratic majority effort in the House to cut the defense budget. Still, Rep. Panatta objected to the proposal for DOD to consider closing Fort Ord, to save money, because it is located in his congressional district.

The above issues indicate the motive for congressional action in the defense budgetary process. However, this by itself does not explain the explosion in congressional oversight of DOD. A proliferation of congressional committees are actively involved in the defense authorization and appropriation process. In 1990, ten Senate committees and eleven House committees have formal jurisdiction over some aspect of defense policy.[Ref. 4] This expansion, coupled with the relative emasculation of the party leadership structure, has allowed many more junior members and staffs to play significant roles in the budget process. Currently, there are nearly 1,500 congressional staffers who deal nearly exclusively with defense issues.[Ref. 5]

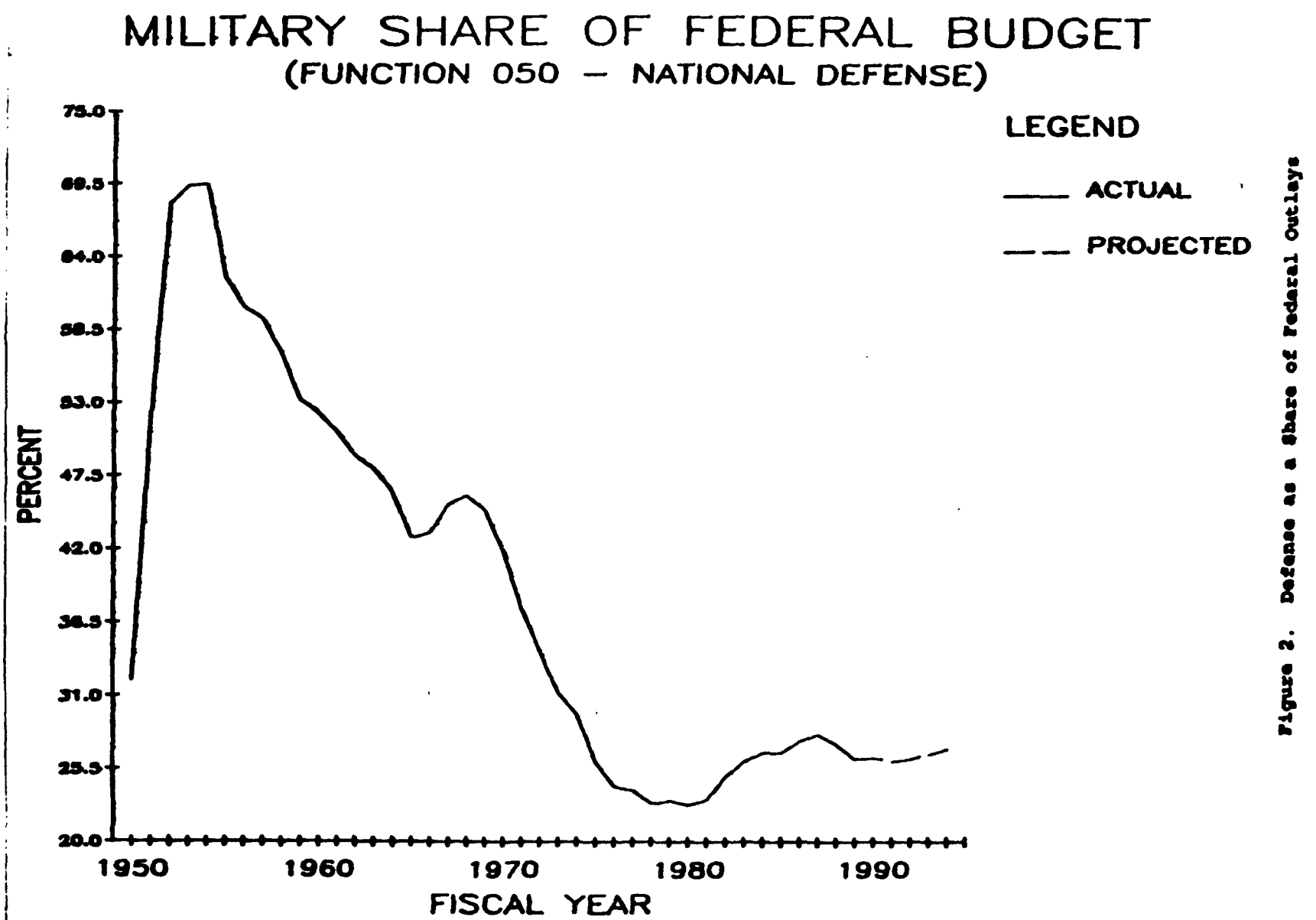

Figure 2. Defense as a Share of Federal Outlays

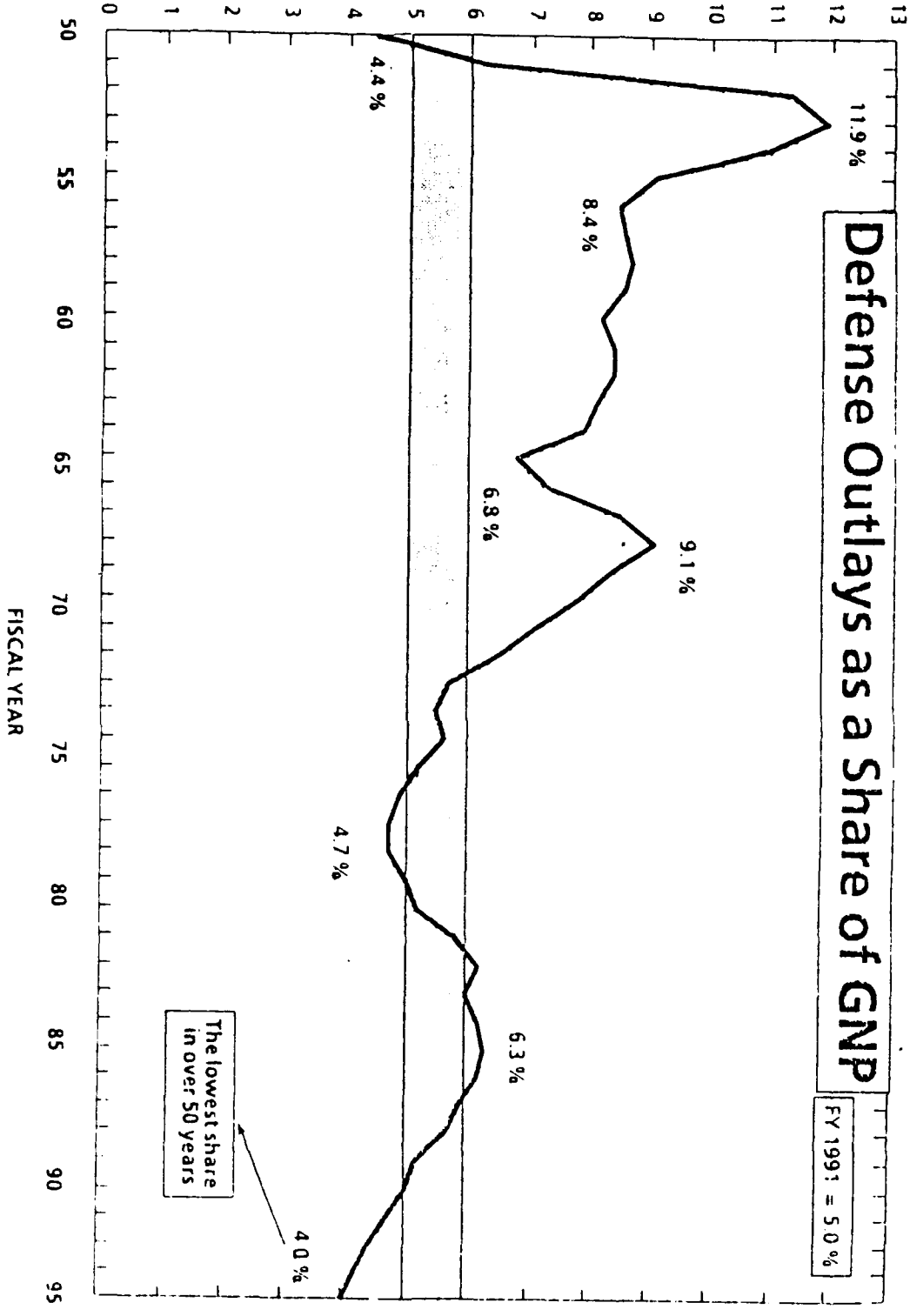

Figure 3. Defense Outlays as a Share of GNP

In contrast, during 1964, the four defense subcommittees on Appropriations and the Armed Services Committees had a total of 37 staff members. In 1989, they numbered 165.[Ref. 6]

Clearly, Congress has both the means and the incentive to intervene in the DOD budgetary process. This is not in itself bad. Our military is based on the premise of civilian control. The problem occurs when Congress intervenes in this process and inserts or deletes programs without giving consideration to how their decisions affect overall military program balance and management efficiency. As noted, congessional intervention is frequently motivated by the quest for votes to attain local military projects that provide jobs and money for their constituents.

Concern over the national deficit created measures such as the Gramm-Rudman-Hollings Act (GRH). The Gramm-Rudman-Hollings Act (the Balanced Budget and Deficit Reduction Act of 1985, and The Deficit Reaffirmation Act 1987), was a program designed to reduce the national deficit over a five year period. It has since been displaced by the 1990 Budget Enforcement Act, agreed to by Congress and the President, which sets new deficit targets and redefines deficit calculation.

While former President Reagan and congressional Republicans preferred tax reductions as a political objective, in the 1980's, they did want deficit reduction and budget balance if it could be achieved solely by tax and domestic spending cuts. "The GRH formula looked like it might make that possible. The Republicans did not want to cut defense, but that was happening anyway."[Ref. 7]

> Conversely, Liberals wanted to pin the deficit tag on Reagan and not allow him to do that to them. Led by Speaker of the House, Representative ONeil, they succeeded in getting the most important entitlement programs either excluded from or subject to only modest reductions should sequestration be invoked. The Act, as passed, exempts 48 Percent of the federal budget (entitlements and debt interest) from across-the-board cuts, with an additional 25 percent available only for very limited reductions. Only 27 percent of the budget, of which two-thirds is defense spending, would bear

almost all of any automatic spending cuts.[Ref. 8]

By doing this, congressional liberals sought not only to protect social welfare programs by ensuring that defense bore a disproportionate share of cuts, but to encourage the President and conservatives to compromise to avoid GRH sequestration.[Ref. 9] If left intact, The GRH Act would have had a severe impact on defense.

> The deficit is calculated in terms of outlays, while budget authority may be spent over a period of years. Given a weighted average of spend-out rates for different types of expenditures, it can take a lot of authority to achieve a lesser degree of outlay reduction.[Ref. 10] The across-the-board GRH mechanism for restraining defense expenditures is irrational and inefficient at best; at worst, its implementation could actually damage national security by slicing intolerable amounts from top-priority programs, rather than preserving them at the expense of low-priority ones.[Ref. 11]

The unanticipated explosion of the FY 1990 federal deficit from a projected level of $100 billion to $250 billion left GRH neutered and ineffectual. In it's place, after five continuing resolutions, the budget summit generated the Budget Enforcement Act that intends to trim the budget deficit by $500 billion over five years. But, this act may not prevent a FY 1991 deficit that could peak at a record level of $300 billion excluding the net positive Social Security balance from the calculation.

a. Changes in the International Order

> Changes affecting U.S. Security are occurring throughout the world, but most profoundly in the Soviet Union and Eastern Europe.[Ref. 12]
>
> General Colin Powell USA
> Chairman of the Joint Chiefs of Staff

Late in the 1980's the security balance of the world changed as Eastern European nations gained their freedom and independence from the Soviet Union. These changes have caused the United States to reevaluate national security policy and the force structure and weapons necessary to

implement these policies. World events have caused the American public to reduce it's concern about the threat the Soviet Union poses to the United States. Relaxed concern over the Soviet threat has led directly to recent tensions over the defense budget. This is illustrated in Secretary of Defense Cheney's article in Defense 90;

> The assumptions allowing this significant reduction in defense resources and the accompanying reshaping of U.S. forces include a continuation of the positive developments in Eastern Europe and the Soviet Union, completion of satisfactory Strategic Arms Reduction Talks and Conventional Armed Forces in Europe agreements. [Ref. 13]

The Intermediate range Nuclear Force (INF) treaty, Strategic Arms Reduction Talks (START), and Conventional Armed Forces in Europe (CFE) agreement, combined with Soviet President Gorbachev's unilateral force cuts in Europe are significant changes that are altering U.S.-Soviet bilateral relations.

The INF Treaty signed by President Reagan and then Under Secretary Gorbachev in December 1987 calls for the removal of all U.S. ground-launched cruise missiles (GLCM), Pershing IIs and Soviet SS-20s at bases throughout Western and Eastern Europe. Many Europeans have expressed view that the INF treaty would lead to the eventual denuclearization of Europe. "...the Western Europeans are at a disadvantage in conventional forces, and are worried that they would be forced to seek some form of political accommodation with the Soviet Union."[Ref. 14] Despite such reservations, NATO allied governments supported the INF treaty. There was widespread public approval of what was perceived as an arms control breakthrough and the U.S. Senate ratified the treaty on May 27, 1988.[Ref. 15] Thus, the public's perception of a Soviet nuclear threat and the possibility of conventional warfare in Europe was radically diminished.

The START and CFE talks also have contributed to the sense of reduced Soviet threat. The terms of the START talks call for a 50 percent cut in

the number of strategic offensive warheads in the arsenals of both the U.S. and the Soviets, while the CFE talks focus on an overall reduction of Soviet and U.S. conventional forces in Europe. Combined with the INF treaty, the START and CFE talks have further caused the America and European public to discount the Soviet threat.

The recent invasion and annexation of Kuwait by Iraqi military forces have caused many U.S. policy makers to force the point for a change in a "dated" National Security Policy and a relook at the defense budget. This new reality, the defense lobbyists' hope, may produce more defense dollars to sustain the military.[Ref. 16]

Early in September 1990 the Pentagon disclosed the costs for operation Desert Shield. At the October 1990 level of commitment operation Desert Shield was expected to cost $17.5 billion by the end of FY 1991. Deployment of an additional 200,000 military personnel, bringing the total force to about 450,000, will result in the inflation of this total. In the event of actual conflict, the Desert Shield budget will likely increase dramatically. Recent figures as high as $37 billion in FY 1991 have been estimated. The 1991 Defense Appropriation Act and budget agreement for the next two fiscal years stipulate that Desert Shield costs will be voted by supplemental appropriation separate from the rest of the defense budget.

Desert shield cost will place additional strain on the budget and put a hold on distribution of the expected "peace dividend". The events in the Middle East also have given new hope for many of the Pentagon's pet programs. "The Middle East crisis may salvage a whole raft of military weapons that just weeks ago seemed destined for the scrap heap, from futuristic space weapons to old-fashioned battleships."[Ref. 17]

An example of how the Middle East crisis has breathed life into weapon systems is the renewed debate over the B-2 Bomber. The House Armed Services Committee voted early in the year to cancel the production of the

$815 million per plane B-2. But because of the Iraqi aggression, stealth technology has found new support. Congressman Bob Dorman of California,

Table 1. Estimated Costs of Desert Shield

Item:	Total Cost (in millions)
Deployment Includes airlift, sealift and other deployment cost.	$5,300
Fuel Cost Increased use and cost of fuel	$2,040
Reserve Callup Active-duty pay, transport, support	$3,015
Operating Expenses Spares, logistics support	$3,085
In-Theater Support Housing, water, sanitation, etc	$2,095
Constructive Costs Facilities designed for 24 months of use	$1,830
Other Medical, family-seperation pay, misc.	$ 165
TOTAL	$17,530

source: **Department of Defense Estimates;** Oct. 1991.

representing the district where the B-2 is produced, said "the B-2 would be an ideal weapon to fly over Iraq".[Ref. 18] Falling into line behind Congressman Dorman are the Northrop Corporation and the Pentagon. Northrop points out that in the future leaders such as Kaddafi and Saddam Hussein will be able to counter any long range bomber except for stealth aircraft such as the B-2. To support the need for stealth technology the Pentagon was quick to deploy the F-117, a stealth attack aircraft, to Saudi Arabia. Stealth technology has yet to prove itself in combat. However, this technology has shown impressive staying power on the budgetary battlefield.

The Iraqi debacle has intensified speculation regarding U.S. capability to fight mid and low intensity conflict. In recognition of a diminished strategic threat, supporters of strategic systems view the

current international landscape through a prism that finds a conventional mission for most strategic weapons.

The accelerating cost of military operations to defend Saudia Arabia from further Iraqi aggression has largely been borne by the United States. Though significant diplomatic energy has been expended to create the appearance of political multilaterality, the financial burden of this conflict has fallen almost entirely on the U.S. and countries in the region, such as Turkey and Egypt which have endured painful economic displacement as a result of the war and subsequent the United Nations embargo of Iraq. Absent from this list of countries are the economic powers of Europe and the Pacific rim, which are the very countries that benefit most from reestablishment of middle eastern regional political stability and concomitant stability in the global oil market. The dichotomy between the bearers of the cost and the recipients of the benefits has escalated American clamor for increased financial and military participation by allies.

Congressional members and staff returning from the middle east have indicated that continued support from Capital Hill for Persian Gulf operations might be predicated on increased participation from allies, more dependent than the U.S. on Persian Gulf oil. This view is supported in a statement ascribed to an unnamed Kuwaiti financier, "The Japanese want to play golf at your club but they don't want to pay the dues."[Ref. 19] The administration's hard nosed efforts to increase allied support have netted some begrudged financial concessions from Japan and Germany as well as a limited military participation by a number of countries.

Reduced concern over the Soviet threat and the events of the Middle East have caused many to question National Security Policy as well as force structure.

> Not only does a significant mismatch exist between the stated national-security strategy of the United States and the forces needed to implement that strategy; there is also a significant mismatch

between the resources required to bring these two areas closer and the resources that are likely to be available in the future. [Ref. 20]

With the evolving events in Europe and the Middle East the key military strategy question is "What is the threat?". This, in turn, causes some to challenge the defense force structure and budget. As noted by John D. Morocco, Senate Armed Services Committee chairman Sam Nunn (D. Ga.) has long called for a review of U.S. military strategy that would enable cuts. "...if the proposed cuts were going to take into account the reduced military threat in Europe, as indicated by Cheney, then you have to ascertain what that threat is."[Ref. 21] Other political leaders such as Rep. Les Aspin have lined up with Senator Nunn in the call for reassessment and reduction. If the threat has changed then DOD needs to take a look at weapon systems and measure when and if we need them.[Ref. 22] This attitude towards the strategic objectives of the U.S. military increases pressure to reduce the defense budget.

2. Objectives

This thesis attempts to assess changes in DON budget in 1990 and 1991 and changes in the DON/DOD budgetary process as a result of having to deal with decreasing resources. Budgetary and program data are evaluated against several models of cut-back budgeting. This analysis attempts to improve understanding of the effect of budget reductions on Navy accounts, programs and the budget process itse

B. RESEARCH QUESTIONS

This thesis documents and analyzes budget and program reductions made by the Navy for fiscal years 1990, 1991 and beyond. The research examines budget and program data, performs statistical analysis, and evaluates alternatives. Current Navy budget and program reductions in force structure, manpower, and all appropriation accounts are analyzed to asses their impact on the operating Navy. The following questions are addressed:

1. What resource reductions has the Navy made for FY's 1990, 1991 and beyond in response to Secretary of Defense, Presidential, and congressional budget decisions?

2. What are the initial impacts of reductions in budget and programmatic resources?

3. What process had been employed by the Navy to make budget reductions?

4. Has the Navy's budget process changed in an environment of reduced resources compared to the process employed in the growth period of the 1980's? If the process has changed, how is it different?

C. RESEARCH METHODOLOGY

This analysis is applied to all DON budgetary accounts. The methodology required information collection from the DON Office of Budgets and Reports, the OSD Office of the Comptroller, DOD/DON and other libraries. Other sources include published academic research in the field of military budgeting, and interviews with comptrollers of major Navy commands and congressional staff.

Interviews were conducted in the Pentagon and elsewhere with participants in the DOD/DON budgeting to assess changes in the budgeting process. Sources internal and external to NAVCOMPT were interviewed to gather data. Interview data is supplemented by internal DOD/DON documents and articles from professional journals and periodicals.

A review of current theoretical research on budgeting in a cut-back environment also was preformed. The thesis applies theoretical research performed by L. R. Jones and Robert Behn in Chapter three. The research developed a model based on the conclusions of Behn's research and the Jones model of finacial restraint budgeting. The models are applied in analysis of the Navy budget cutback process. Navy budget process data is compared to the results predicted by the two models. Variances from predicted results is explained.

D. THESIS ORGANIZATION

Chapter II presents historical defense budgetary data compiled from a variety of sources. Included in this chapter are tabular and graphical presentations of budgetary data and analysis of historical trends in the defense budgetary process.

Analysis of the data arrayed in Chapter II is provided in Chapter III. The results of analysis are displayed and explanations of the findings are provided. Chapter III also describes the Jones and Behn budget reduction models. Analysis is conducted to determine how well the models predict DON cutback budget activity.

Conclusions drawn from analysis of the data are presented in Chapter IV. Areas warranting further study also are addressed in the conclusions.

II. HISTORICAL AND CURRENT DEFENSE BUDGET DATA

A. BUDGET DATA

1. Background

The following section provides historical background data on the budget processes and budget environment within which the Departments of Defense and Navy have operated from 1961 through the present.

a. McNamara and PPBS

In 1963 the Planning/Programing and Budgeting System (PPBS) was developed under the leadership of Secretary of Defense Robert Mcnamara. PPBS was designed to create a systematic process in which resource allocation supported the missions and plans of the Department of Defense. Prior to PPBS, the defense budget had questionable continuity from year to year. Whenever public opinion changed or the objectives of the military altered, so did the construction of the budget. In the simplest of terms, PPBS is designed to assist the Secretary of Defense in making choices about the allocation of resources among the services and defense agencies as well as among possible programs and alternatives to accomplish specific national security objectives.[Ref. 23]

The revolutionary change that the PPBS brought to the budgetary process was the concept of programming as a bridge between that already established functions of military planning and budgeting. The programming phase is the process by which the policy, force and fiscal guidance provided in the Defense Guidance (DG) is translated into a plan of effective and achievable programs.

The goal of PPBS is the accomplishment of U.S. national defense objectives through the selection of the most effective allocation of resources. The distribution of limited funds between numerous programs

was the leading problem that forced budget development in the Navy during the Mcnamara era and continues today. Through the use of extensive planning and priority setting, PPBS would assist budget makers in the process of determining the size, scope and purpose of the programs necessary for the construction of effective national defense objectives.

b. Post Vietnam Builddown

In mid-1965, the United States, unwilling to see the whole of Vietnam and perhaps all of Southeast Asia come under communist control, intervened in force, transforming the character of the struggle.[Ref. 24] The United States intervention into the Vietnam conflict brought to an end the defense cutback of American forces, which had occurred since the end of the Korean War. The defense budget grew as high as 9.6 percent of GNP (1968).

As the War drew out and confidence in the military's ability to achieve a quick and easy victory dwindled, the call from the public for the United States to withdrawal from Vietnam began to grow louder. By the time of American withdrawal of troops in 1972, the United States military had grown to a size only second to that of World War II.

During America's military buildup from 1965-1968, the defense budget averaged 8.5 percent of GNP. As U.S. support of Vietnam leveled off so did the defense budget. From 1969 to 1972 the defense budget had fallen to 6.9 percent of GNP, the lowest percentage since 1950. After the war, the defense budget continued to slide during the Nixon, Ford and Carter Administrations. By 1980, the last year of the Carter Administration, the defense budget had fallen to 4.7 percent of GNP.

In his first term (1968-1972), President Richard Nixon approved large spending increases. Nixon's spending which included huge increases in social security, loan guarantees, and other pro-spending developments too numerous to mention were at the expense of the defense budget. [Ref. 25] Even though America was still committed to the support of the

Vietnam War, the defense budget decreased cumulatively 2.7 percent of GNP during the years 1968-1972. By 1972 it was two percent of GNP.

Nixon's term in office also brought with it changes to the budgetary process. The war that raged over spending generated by Vietnam and new domestic welfare programs resulted in a series of debilitating battles over budget priorities.[Ref. 26] Nixon was advocating expansive spending policies as long as resources were allocated consistent with his executive objectives. When Congress attempted to challenge his authority Nixon would impound funds.

Congressional worries that they were losing control over the purse strings led to the Budget Impoundment & Control Act of 1974. The Budget Impound & Control Act established requirements for Budget Resolution, which sets dollar limits for total federal spending, revenue, debt and national defense spending and linked the economy to the budget. It also was an attempt by Congress to reassert it's role in the development of the budget through the control over the president's ability to dictate what and how funds were to be spent. The Act established Budget Committees to carry out the requirements set forth within its control. In addition, the Act created the Congressional Budget Office (CBO). CBO was to be the counterpart to the presidents Office of Management and Budgeting (OMB). CBO was to provide a bastion of neutral analysis, loyal to the institution of Congress.[Ref. 27]

Defense spending continued to decline th ugh the Ford and Carter administrations. Due to a combination of the end of the war in Vietnam and continued concentration on welfare policies, defense spending shriveled by 25 percent (or $58 billion) in real terms between 1970 and 1980.[Ref. 28] The decline in defense spending and subsequent erosion of military capability, combined with the recession that the American economy was experiencing, the stage was set for the Reagan Administration's plan to rescue both the military and economy through increased defense spending.

c. 1980-1985

The public's displeasure with the size of government and the economy were the leading factors that enabled Ronald Reagan to defeat Jimmy Carter in the 1980 presidential election. As one analyst put it:

> The cause of the shift to Reagan was primarily economic. His greatest strength was among those who believed their economic position had worsened in the past year, and among those who considered inflation the primary problem facing the nation... Economic dissatisfaction is the most direct influence on the 1980 vote and it has a greater impact than any other issue. [Ref. 29]

With the election of Ronald Reagan came a renewed interest in the condition of the military, which had suffered under the Carter administration. Even though Reagan is credited with the military build-up of the early eighties, it was actually Jimmy Carter who started the ball rolling with his last presidential budget.

> Defense had declined by half from the late 1950's to the late 1970's (falling from 10 percent to 5 percent of GNP) but picked up to over 6 percent of GNP as a result of the big push begun by President Carter in 1980 and accelerated by the Reagan Administration. [Ref. 30]

Operating from an apparent understanding of the boom or bust cyclicality of military budgeting, the Reagan administration sought to build defense aggressively and to sustain the momentum of growth as long as possible. In seeking to magnify the intensity of the build-up it has been proposed that the Reagan Administration exaggerated assessments of Soviet strength, adopted strategies, particularly naval, that were escalatory and perhaps infeasible, and attempted to accelerate the procurement of new programs that were of doubtful urgency. [Ref. 31] President Reagan's first five years in office saw the defense budget grow constantly. Over that five year period defense spending as a percentage of the Gross National Product grew from 4.7 percent in 1980 to 6.4 percent in 1985. (Figure 3) By 1983, after four years of substantial increases, the Defense budget had risen by $62 billion. President Reagan's "defense boom" also saw an enormous growth of the national deficit. The deficit almost tripled from $73.8 billion in

1985. Growth in the deficit can be attributed to Congress's unwillingness particularly in election years, to cut social entitlement and the President's refusal to sanction a tax increase Inevitably, the defense budget would bear a large part of the burden of deficit reduction. The large budget deficits that had developed during the Reagan Administration led Congress to pass the Deficit Reduction Act of 1985. In 1985 Congress passed legislation to reduce the deficit an additional $63 billion through this Act. The passage of the FY 1985 budget was slowed by a debate on how much funding the defense budget should be allocated. The final outcome resulted in modest 0.2 percent of GNP increase.

President Reagan's first budget was the closest he would ever come to a balanced budget. He continued to denounce deficits while using them to discourage spending on domestic programs. His deficits averaged more than 4 percent of GNP, compared to 2 percent in the 1970's.

d. 1986-1990

In 1984 President Reagan was reelected overwhelmingly on a platform that gloried the status quo.[Ref. 32] A 4.2 percent reduction of the defense budget was imposed by Congress in 1986, and another reduction of 2.5 percent in 1987. These changes to the defense budget came as a result of growing national deficit and a reassessment of the Soviet military spending practices.

President Reagan's Fiscal Year 1986 budget projected a $180 billion deficit. This budget met stern criticism by both Democrats and Republicans who were feeling the pressure from their constituents over the enormous budget deficit generated by the Reagan Administration. The result was a budget resolution that contained no real defense increase, a Social Security cost of living adjustment (COLA) and no tax increases. The inability of Congress and the President to agree on a way to gain control over the run away deficit led to the passing into law of the Gramm-Rudman-Hollings Act.

GRH played a significant role in the reversal of defense spending. The law called for across the board cuts in which defense spending would absorb one half. This required a search for areas to make significant spending cuts. If the President refused to support Democratic increases in domestic spending and wanted continued defense growth he would be forced to raise taxes, a measure that he was not willing to take. "Reagan felt that every time he compromised by raising taxes, he did not get in turn promised cuts in domestic spending."[Ref. 33]

Given Democratic unwillingness to give ground on domestic spending, the President was forced to either abandon the defense buildup of the early eighties or increase taxes in order to develop a budget that Congress would accept and that would prevent the activation of GRH cuts. "Given the mood created by the events of 1985, the search for significant spending cuts henceforth had to focus largely on the defense budget, and the military buildup on the late 1970's and early 1980's began to be reversed."[Ref. 34]

Another factor in the turn around in defense spending was the reassessment of the Soviet military and the amount of spending their government was allocating to its defense. In the early and mid-1980's, it was believed that the Soviets were in the midst of a massive military buildup. This belief fueled the Pentagon's call for larger budgets to meet the growing Soviet military. However, the Central Intelligence Agency revised it's estimate of the Soviet military threat in 1983 and found that the Soviets had actually cut their annual defense growth rate in half from 4 to 5 percent (from 1970 to 1976) and 2 percent a year from 1976 to 1983.[Ref. 35] This reassessment of Soviet spending practices coupled with bad press regarding Pentagon mismanagement of programs such as the Sergeant York and Bradley Fighting Vehicle, caused the Congress to become more involved in the budget process and intensified pressures for reductions in the defense budget.

From 1986 to 1990 the defense budget, in terms of new budget authority (BA), went into the zero-real-growth mode of operation. In 1988 and 1989 Budget Summit Agreements and Budget Resolutions resulted in reductions over the Five Year Defense Plan (FYDP) to DOD and DON toplines of $200 billion and $60 billion respectively.

President Reagan's military build-up was highly investment intensive. During the Reagan Administration the investment accounts; research, development, test and evaluation, and military construction were double that of operation and support expenses. (investment/O&M (Reagan,1981-92) is .833; percentage change is {(o.833-.53)(100)}/(.053)= .57.) [Ref. 36] Operation and support expenses are spent much more rapidly that appropriations for investment accounts. The increases in investment accounts locked the Pentagon into spending streams extending over several years. This meant the cuts in defense budget were more likely to come in the form of reductions in the Operations and Maintenance and other "support" accounts, which would endanger combat effectiveness. "One risk inherent in this approach is that the ability of U.S. forces to deter aggression may weaken if tomorrows big ticket items are foresaked at the expense of today's combat effectiveness (a function of readiness, skill, substainability and other factors largely funded under O&S). [Ref. 37] This debate seems to have set the tone for negotiation of defense budgets in years to come.

e. ***1991-1996***

> While the threat of deliberate aggression in Europe has diminished, the dangers elsewhere are increasing. In the coming decade, U.S. forces must be prepared to cope with other challenges, such as, arms proliferation anti-American regimes and non-state threats. [Ref. 38]

In 1989 President Bush's five year plan called for real growth rates in the military of 1 to 2 percent each year. After the changes of 1989 in Europe and the Soviet Union, Secretary of Defense Dick Cheney proposed a 2 percent per annum real decline in defense budget authority for fiscal 1991 through fiscal 1995. Cheney stated that, "I believe our

nation can begin to scale back defense funding somewhat without unacceptable risk to its security."[Ref. 39]

The budget reductions that Secretary Cheney proposes would mean that the defense budget would be $515 billion below the zero-real-growth level for fiscal years 1986-1995. By fiscal year 1995, the result would be a cumulative 10-year real decline of 22 percent, and DOD outlays as a percentage of total federal outlays would be the lowest in 50 years.[Ref. 40] Corresponding force reductions accompany these budget cuts.

One of the priorities that guided the DOD budget request for fiscal years 1992-1997 was the Maritime Strategy. Adequate naval power is needed to keep valuable sea lanes of communication open in the time of conflict. America's growing dependence on resources and trade abroad are the driving factors that require free sea lanes. The budget cuts in the 1990's that are expected will test the Navy's ability to meet this objective with reduced resources.

The Navy's budgetary plans that conform to the force reductions proposed by Secretary Cheney include the retirement of two battleships and planning for the deactivation of one nuclear cruiser in FY 1992 and another in FY 1994; retirement and deactivation of three SSN 594-class submarines over and above the three planned for deactivation in the April budget revision; and deactivation of two 637-class submarines. [Ref. 41] By the end of FY 1991 the Navy will total 546 ships which will include 14 deployable carriers.

2. Appropriations

The following data provides the historical and projected dollar size and trend changes in the DOD/DON budgets from the perspective of appropriations. The data is segregated to distinguish between investment and operating accounts. The Constitution of the U.S. of America specifically states that no money shall be drawn from the Treasury, but, in consequence of Appropriations made by law. Appropriation acts provide

a specific amount of funds to be used for designated purposes. Appropriations are divided into budget activities and are further divided into subactivties, programs, and projected elements of expense.

It is through the appropriation of funds that Congress exercises control of the national purse strings. Congress uses their control of the purse strings to ensure that the officers of various agencies are dependent upon them for funds. Congress also uses this monetary leverage to ensure that agencies support their political priorities.

Agencies do not share the privileges that Congress enjoys when it comes to the appropriation of funds. Agencies must justify their meed for appropriations each year. They must also meet budget submittal deadlines imposed on them by Congress. Agencies must remain in good favor with Congress if they wish to receive the funds they desire to carry on operations.

Congress, on the other hand, doesn't have to justify the amount of funds they appropriate to various agencies. They also are under budget deadlines but in recent years it has been the practice to go to continuing resolutions to ensure that agencies continue to operate.

Congress exercises its financial control through a package of thirteen appropriation acts. Defense appropriations are categorized by purpose; Operations and Maintenance, Military Personnel, Procurement, Research and Development, Military Construction and others and do not directly reflect military mission areas.

a. Historical Trends

The amount of funding for Defense is an ever changing variable which often takes on the face of the political environment in which it is derived. Over the past twenty years the U.S. defense budget has been on this feast or famine roller-coaster.

From 1970 to 1975, the time frame when the Vietnam War had come to an end, the defense budget declined significantly. In 1970 and 1971 DOD budget authority experienced 10% and 9.7% declines in real growth. These

were the greatest single year to year declines since the conclusion of World War II. For the period FY 1970-1975 total DOD budget authority averaged a 5.8 percent decline. Procurement led all accounts with a average real growth rate of -8.9 percent, 1971 being the lowest with -16.9 percent real growth. MILPERS averaged a decline of 6.5 percent followed by O&M with -5.2 percent and RDT&E -4.6 percent.

During the period from 1976 to 1980 defense funding showed a modest growth rate which averaged approximately 2 percent. However, MILPERS continued to decline an average of 1.8 percent per year. O&M was the only account which had an increase during all years of this period and averaged 4.48 percent real growth. Procurement showed a major increase in 1976 and 1977 when it peaked at 19.6 percent real growth. However, it finished the period with continued decline in real growth.

1981 began the surge towards the budgetary zenith of 1985. From 1981 to 1985 all accounts which make the defense budget enjoyed a period of unbridled spending. This period saw the DOD budget authority average 9 percent real growth. All accounts within the DOD budget had positive growth rates. In particular, Procurement and RDT&E reflected significant increases. Procurement had an average real growth rate of 16.8 percent while RDT&E averaged 12.8 percent. The MILPERS account which had been in continual decline prior to this period, increased at an average real growth rate of 8.38 percent. O&M funding also grew during the period and averaged 6.94 percent real growth.

As the Cold War came to an end, so did the spending binge of the early eigthy's. By 1990 DOD budget authority had leveled off and all accounts began to conform to Congress's zero-real-growth program. MILPERS, O&M and RDT&E all reflected little or no growth while Procurement averaged a -5.7 percent real growth rate.

During this time period, the DON budget, reflected the changes of the overall DOD budget. However, the DON budget showed more year to year deviation from the declining trend.

During the 1970's, the DON budget was reduced significantly, due largely to the end of Vietnam. In 1970 the DON budget was $71,933 million compared to $63,037 million in 1980. This equates to a 12.4 percent decrease in DON's total budget for the period. The trend was a consistent decline, with the exception of 1974, when the DON budget was $74,237 million. MILPERS had the most consistent trend, declining 3 percent on the average. (Figure 4).

All of the other DON accounts exhibited various fluctuations. O&M varied over time but continually grew in total an average of 3 percent per year and averaged 30 percent of the total DON budget. Procurement averaged zero-real growth over the ten year period. However, it grew steadily after Vietnam from 30 percent of the total DON budget to 36 percent in 1980. RDT&E also had zero-real growth over this period and remained at around 10 percent of the total DON budget.

In the 1980's the DON budget enjoyed unprecedented largesse. The total DON budget grew from $79,250 million in 1981 to approximately $100,000 million in 1990. This equates to an average 2 percent per year real growth rate. MILPERS showed a constant growth rate during the period, with one exception, from 1987 to 1988 it decreased approximately one percent only to rebound in 1989 and increase one percent.

O&M peaked in 1985 at $32,939 million, which represented 32 percent of the total DON budget. O&M, however, averaged a 1.5 percent decrease for the ten year period.

At 36 percent, procurement accounted for the largest portion of the DON budget. During this period, funding for Navy procurement increased an average of two percent per year.

RDT&E continued to represent approximately 10 percent of the DON budget with annual funding increasing at an average rate of 3.8 percent. This growth was concentrated in the early 1980's and peaked in 83 with a single year growth rate of 17 percent. Since 1985 RDT&E funding has fallen steadily.

DON BUDGET AUTHORITY FY 70-90
CONSTANT 90 DOLLARS

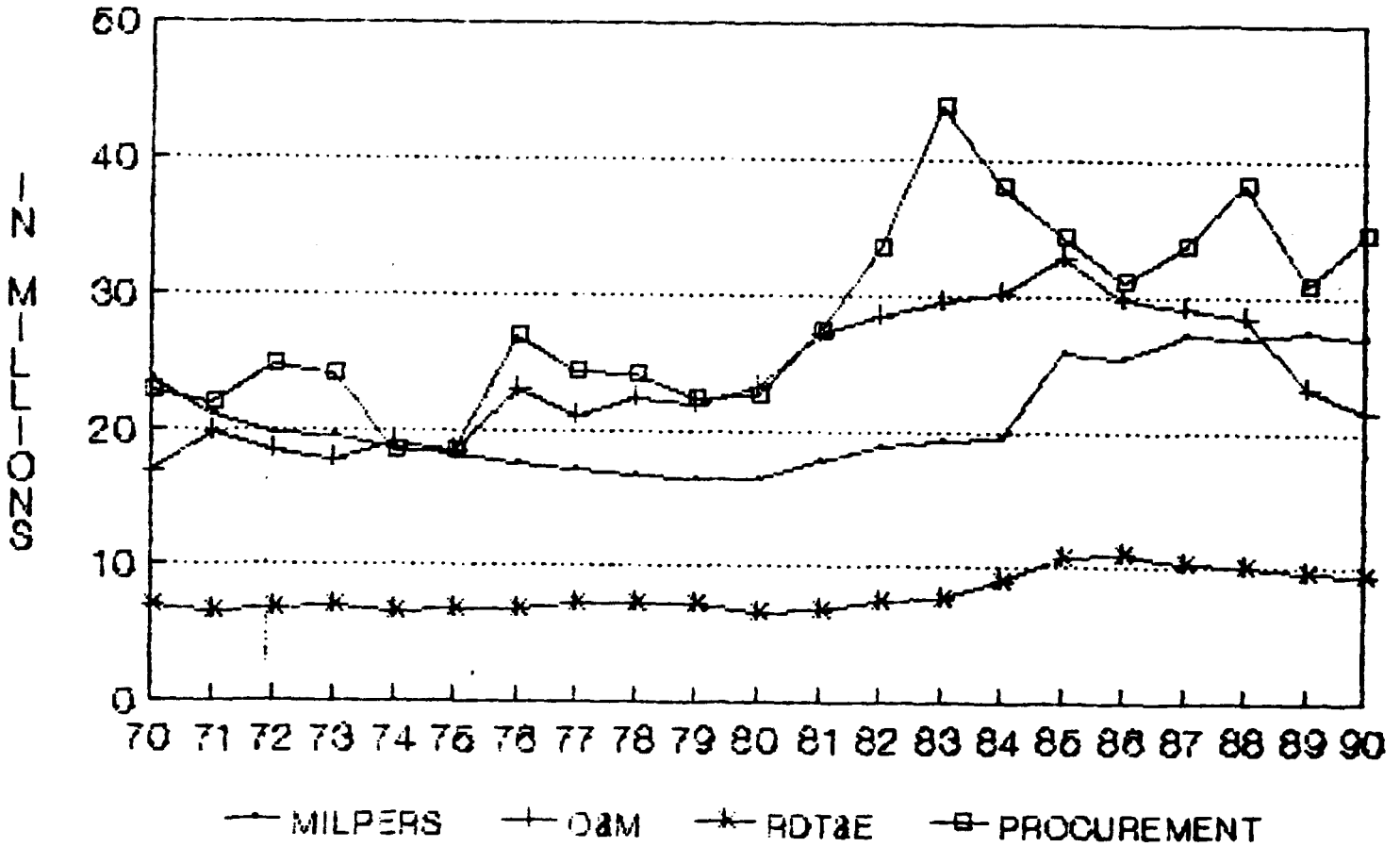

Figure 4. DON Budget Authority (FY 1970-1990)
*source; Federal Budget Reports (FY 1970-1990)

b. Current Budget Data and Projections

The Operating accounts are made up of the Military Personnel and Operation & Maintenance accounts. The operating accounts represented 58.5 percent of the FY 1991 budget. The Military Personnel accounts finance the cost of active duty and reserve personnel. The Operations & Maintenance accounts finance the cost of on-going operations, for example, base operations, civilian payroll and repair parts. The FY 1991 DOD military personnel appropriation was $78,080 million which was $973 million less than the President's request. The congressional decrement was distributed across the services as follows:

Table 2

MILITARY PERSONNEL PERCENTAGE DECREASES

SERVICE	PERCENTAGE
NAVY	-.013
USMC	-.003
USAF	-.014
USA	-.013

***source; Conference report, DOD Appropriations, October 24, 1990.**

The reductions came as a result of cuts in active duty personnel forces. The FY 1991 budget cut an additional 80,000 military personnel end strength. Reserve and National Guard forces for all services had modest increases, while the Marine Corps remained unchanged.

Congress appropriated $19 billion for the Active Navy Personnel account. This is approximately $100 million less than the House recommendation and $22 million more than the Senate recommendation. End strength reduction was the major element in Navy MILPERS funding cuts, constituting over half of the total reduction to the account.

Table 3

RESERVE PERSONNEL INCREASES

SERVICE	PERCENTAGE
NAVY	+.013
USMC	0.00
USAF	+.004
USA	+.011

NATIONAL GUARD PERSONNEL INCREASES

SERVICE	PERCENTAGE
USA	+.006
USAF	+.008

*source; Conference Report, DOD Appropriations, October 24, 1990

The Marine Corps was appropriated approximately $5.9 million for Active Duty personnel. This was greater than the House and Senate recommendations, but was $21,098,000 below the President's Budget request. End strength reduction comprised almost 90% of these reductions.

Reserve Forces Navy show an increase in appropriated funds for FY 1991. The appropriation of $1,645,000 was $20,400 grater than the President's request. While the Marine Corps reserve forces remained virtually unchanged.

Table 4

O&M CUTS FOR ACTIVE FORCES ($ hundreds)

SERVICE	PRESIDENT'S REQUEST	CONFERENCE	DIFFERENCE
NAVY	24,531,600	23,161,647	- 1,369,953
USMC	1,948,100	1,892,200	- 55,900
USAF	22,048,900	20,060,735	- 1,988,165
USA	23,562,900	21,515,694	- 2,047,206

*source; Conference Reports, DOD Appropriation, October 24, 1990

The Operation and Maintenance account for FY 1991 represents 30.9 percent of the total DOD budget. Congress appropriated $83,452,560 which was approximately $5 billion less than the President's request. The O&M cuts for active forces were taken by all services.

Like the MILPERS accounts, aggregated O&M funds appropriated for support of the reserve force was increased. The Marine Corps and Army National Guard were alone in suffering small funding decrements.

Table 5

OPERATION AND MAINTENANCE ACCOUNTS, RESERVE ($ hundreds)

SERVICE	PRESIDENT'S REQUEST	CONFERENCE	DIFFERENCE
NAVY	985,925	998,000	+12,075
USMC	86,100	84,800	-1,300
USAF	1,042,500	1,065,900	+23,400
USA	890,400	909,100	+18,700

OPERATION AND MAINTENANCE ACCOUNTS GUARD (hundreds)

SERVICE	PRESIDENT'S REQUEST	CONFERENCE	DIFFERENCE
ARMY NATIONAL GUARD	1,988,500	1,980,400	-8,100
AIR NATIONAL GUARD	2,175,400	2,247,200	+71,800

*source; Conference Report, DOD Aprropriations, October 24, 1990

MILITARY PERSONNEL FY 1991 ($ billions)

	REQUEST	APPN	DELTA $	DELTA %
DOD	79.1	78.2	-0.9	-.01
DON	27.2	26.9	-0.3	-.01

*source; Conference Report, DOD Appropriations, October 24, 1990

Table 6

OPERATION & MAINTENANCE FY 1991 (billions)

	REQUEST	APPN	DELTA $	DELTA %
DOD	88.7	83.6	-5.2	-.06
DON	24.5	23.2	-1.3	-.05

*source; Conference Report, DOD Appropriations, October 24,1990

The Procurement accounts are investment type appropriations. Procurement accounts within the DON are made up of aircraft procurement Navy (APN), weapons procurement Navy (WPN), shipbuilding and construction Navy (SCN), procurement Marine Corps (PMC) and other procurement Navy (OPN). Procurement accounts represented approximately 24 percent of the DOD budget for FY 91. Of that amount, DON procurement accounts made up 44.8 percent.

Overall, for FY 1991 procurement account budget authority showed a real dollar decline of -14.2 percent from FY 90. Actual appropriations for DOD procurement accounts were approximately 13 percent less than the President's budget request. The DON procurement accounts also reflected a decrement to the President's request by approximately 13 percent. The result of the reductions added up to approximately $4.4 billion for the DON procurement accounts and $10.4 billion for DOD.

The following is a brief description of how the procurement accounts within the DON fared in FY 1991 appropriations.

- Aircraft Procurement, Navy: all accounts were reduced with the following exceptions; AV-8B (V/STOL) Harrier and V-22 Osprey.
- Weapons Procurement, Navy: most accounts were reduced or remained unchanged except for the AMRAAM and Sidewinder which received no funding.
- Shipbuilding and Construction, Navy: accounts were reduced. The Trident, however, received increased funding of approximately $107 million.
- Other Procurement, Navy: all accounts were reduced.
- Procurement, Marine Corps: all accounts were reduced and the commercial passenger vehicles account received no funding.

Table 7

PROCUREMENT FY 1991 ($ billions)

	REQUEST	APPN	DELTA $	DELTA %
DOD	77.9	67.5	-10.4	-.13
DON	34.9	29.7	-4.4	-.13

*source; Conference Report, DOD Appropriations, October 24, 1990

Research, Development, Test and Evaluation accounts finance the cost of scientific research, development, test and evaluation of new and improved weapons systems and related equipment. RDT&E within the DON is comprised of funds for both the Navy and Marine Corps. RDT&E was approximately 14 percent of the total DOD budget. DON accounted for 25 percent of this funding. The resulting reductions to the President's request for RDT&E funding were 5 percent DOD and 2 percent DON. The Conference Committee directed DOD to include in its FY 92 budget a provision that not less than a 10 percent reduction be taken in the funding of all Federally Funded Research and Development Centers. [Ref. 42]

The DON's RDT&E funding was reduced by $147 million from the President's modified request. Rear Admiral Milligan, Director of Budgets and Reports, sites congressional displeasure with previous year budget execution as the precipitating cause of $87 million of this amount.[Ref. 43] The rest of the reductions came from the termination of the Electric Drive program and the P-7 program. Funds were added for the P-3 modernization program, Sea Lance, SSN-21, SQQ-89 and industrial preparedness.

Table 8

RDT & E FY 1991 ($ billions)

	REQUEST	APPN	DELTA $	DELTA %
DOD	38.0	36.0	-2.0	-.05
DON	9.1	8.9	-.15	-.02

TOTALS FY 1991

	REQUEST	APPN	DELTA $	DELTA %
DOD	286.7	268.8	-18.1	-.06
DON	100.3	93.4	-6.9	-.07

*source; Conference Report, DOD Appropriations, October 24, 1990

3. **Programs**

a. Size and Force Structure Trends

The following data illustrates the size trends of total Navy force structure and components, and considers actual, planned and alternative program and force reductions. Traditional budgeting is concerned with the input of resources while program budgeting is concerned with the output of programs. The program budget sets forth what accomplishments can be expected from the resources made available. Navy programs are divided into the following eleven areas:

1. General Purpose Forces
2. Intelligence and Communications
3. Airlift and Sealift
4. Guard and Reserve Forces
5. Research and Development
6. Central Supply and Maintenance
7. Training, Medical and Other General Personnel Activities
8. Administration and Other Associated Activities
9. Support of Other Nations
10. Strategic Forces
11. Special Operations Forces

General Purpose Forces

General Purpose Forces as reflected in the FY 90 POM represented 56.5 percent of the dollars spent on the eleven programs. General Purpose Forces have taken significant reductions.

The Navy's POM Data for FY 1991 reflect the following:

- 46 Knox class frigates, 2 Bronstein class frigates, and 7 Iwo Jima class amphibious assault ships to be decommissioned.
- By 1997 , 13 attack submarines and 14 auxiliary ships to be eliminated.

The Navy's 1992 proposal included:

- Deactivation of two battleships, Iowa and New Jersey, 11 guided missile destroyers, 8 nuclear attack submarines.[Ref. 44]
- Overall Navy procurement funding in FY1990 was 34.5 million, falling in 1991 to 34 million.[Ref. 45]
- SLEP(Service Life Extension Program) may be eliminated for two carriers in 1992, reducing carrier strength from 14 to 12. [Ref. 46]
- Active carrier air wings will fall from 13 to 12.

Active Navy military personnel is projected to fall from the FY 1989 level of 592,652 to 584,800 in FY 1991. Further reduction to 548,783 is scheduled by the end FY 1993. Active Marine Corps personnel of 196,956 in FY 1989 will remain largely unchanged through FY 91, but will fall to 187,000 by the end of FY 1993.

Table 9

Personnel End-Strength

	FY 1990	FY 1991	FY 1992	FY 1993
ACTIVE MILPERS (END YEAR)	775,797	781,300	759,976	735,783
NAVY	579,303	584,800	563,276	548,783
MARINE CORPS	196,494	196,500	189,700	187,000
RES PERS (END YEAR)	197,400	192,800	179,742	177,644
NAVY	153,400	149,700	138,842	136,744
MARINE CORPS	44,000	43,100	40,900	40,900
CIVPERS (END YEAR)	348,062	345,504	335,794	333,032
NAVY	326,691	324,482	315,086	312,602
MARINE CORPS	21,371	21,023	20,708	20,430

*source; Highlights of the DON Budget, January 1990

Intelligence and Communications

The Intelligence and Communications programs provide for the collection, analysis and dissemination of intelligence, meteorological and oceanographic data. These programs also provide communications support for Navy activities. The FY 1991 program reflects increased funding for AUTOVON and AUTODIN and include significant increases related to LEASAT satellites as well as the addition of three oceanographic ships. No real growth is included in FY 1992/1993 funding in a budget that reflects savings of $26 million from management review and revalidation of circuit requirements. Also incorporated is a total 1992/1993 savings of $28 million due to the change from leased to Navy-owned satellites.

Strategic Sealift

The Strategic Sealift program provides the ability to store and move supplies and equipment overseas on cargo ships and tankers. O&M funding for sealift is constant and remains stable through FY93. Sealift capabilities are enhanced through the procurement of floating and elevated causeways, utility landing craft, cranes and other container handling equipment. The conference committee added $900 million to the President's FY1991 budget request for the procurement of sealift ships for the prepositioning of Army equipment.

Guard an Reserve Forces

In the face of shrinking active duty forces the importance of reserve forces has become increasingly evident. This is reflected in Congress's addition of $1.5 billion for National Guard/Reserve Equipment.

The Navy was appropriated $3,235.9 billion for the support of reserve forces in FY 1991. This was a $204 million increase over the amount that was appropriated in FY 1990. In addition to these funds, $85.4 million was appropriated for the procurement of equipment out of the National Guard and Reserve Equipment appropriation. In addition to the increased funds appropriated, the Navy will transfere an additional seven ships to the Reserve Force.

Manpower numbers, in both the Navy and Marine Corps reserve, declined in FY 1991. End strength projections for the Navy fall to 149,700 in FY 1991, from 153,400 in FY 1990. This reflects the effects of additional ships transferring to the Naval Reserve, and reductions of Full Time Support work years and Naval Reserve infrastructure. [Ref. 47] The Marine Corps reserve force decreased by 100 in FY 1991. This was largely due to reductions associated with the retirement of equipment, offset by an increase of Full Time Support personnel to accommodate the stand-up of a Marine Aviation KC-130T Squadron, an increase of one AH-1J Attack Helicopter Squadron, activation of a Light Anti-Air Missile Battery and an increase of six Low-Altitude Defense Platoons.[Ref. 48]

Research and Development

These programs include activities related to technology base, advanced technology development, strategic programs, tactical programs, intelligence and communications and defense-wide mission support. These activities finance the cost of new and improved weapon systems and related equipment for both the Navy and Marine Corps. Funding for R&D has remained almost constant at around ten percent of the total Navy budget. However, funding for R&D decreased approximately $411 million between FY 1990 and FY 1991. The tactical programs absorbed the greatest cuts amounting to $493.5 million. Reflecting congressional concerns, programs relating to preservation of the technology base as well as intelligence and communications were unscathed and garnered marginal funding augments.

The Conference Committee reduced the President's RDT&E request by $64.7 million. This reduction represents less than a one percent decrement. By contrast, the absolute value of dollar changes to the President's request reported out of the House Appropriations Committee was $1,468.6 million representing a 16% change. Among the specific programs earmarked for increase include the V-22 (+$238 million), Industrial Improvement (+$60 million) and Surface ASW System Improvement (+$15 million). Specific programs taking reductions include Electronic Warfare

improvement (-$100 million) Vertical Launch ASROC (-$15 million) and Trident II (-$20 million)

Central Supply and Maintenance

Central supply and Maintenance Activities provide supply, maintenance, technical and other logistic and acquisition management support to the operating forces. The FY 1991 program request reflected modest increases in funding to reduce the depot maintenance backlog in aircraft rework. Additional funding for FY 1991 was requested to support the acquisition of in-house advisory and assistance services currently performed through outside contractors. Budget estimates for FY 1992/1993 reflect increases to support the increasing number of Aegis platforms and increases for centrally funding environmental protection programs. A modest increase in FY 1993 is requested for airframe rework to keep the number of aircraft overdue for maintenance below levels which adversely effect fleet readiness. The Conference Committee reduced funding for air launched weapons and other aviation systems maintenance. The Conference Committee restored funding for central supply command and administration that was eliminated in the House bill.

Training, Medical and Other General Personnel Activities

The Training, Medical and other General Personnel Activities programs provide training and education, health care and other general support to Naval personnel. Declining Navy end strength has led to a reduction of $123 million in FY 1991 in these accounts. Tot . medical program funding remains relatively level from FY 1989 through FY 1991 at $2 billion. The Conference Committee specifically prohibited the number of medical and medical support personnel from being reduced below the average number on duty during FY 1990. The conferees provided an additional $4 million for the augmentation of the Navy's overseas laboratory programs. This comes as a result of a recognition of the Navy's contribution to DOD's infectious disease research and it's potential to improve the ability of Desert Shield forces to combat the chemical and biological threat.

Requested increases in training accounts to upgrade service schools and to develop new "A" and "C" schools were eliminated to reflect reductions in end strength. FY 1992 funding reflects the shutdown of one nuclear power training prototype plant and reduction in pilot and NFO training. Marine Corps training accounts were not reduced in FY 1991. However, the President's request for Navy training and education was decremented by $44.7 million.

Administrative and Associated Activities

Administrative and Associated Activities include funding for the staff offices of the Secretary of the Navy and the Chief of Naval Operations, and provide service-wide support in the financial, legal and personnel areas. The FY 1991 program reflects increases resulting from direct payment for water and sewage disposal from Naval District Washington to the District of Columbia, and increased rental payments to GSA.

Support of Other Nations

The Support of Other Nations programs include funding for the Latin America Cooperative Program, emergency medical travel for certain Navy personnel, the Technology Transfer program and the Unified Commanders cooperative programs and exercises with friendly nations. The FY 1991 program request, $7.3 million, reflects additional support for USCINCPAC cooperative programs with friendly nations and USN hosted conferences sponsored under the Latin American Cooperative Program. The conference committee supported full funding of these accounts.

Strategic Forces

The Strategic Forces represent the Navy leg of the nuclear weapons triad. In addition to procurement of weapons and delivery systems, these programs include maintenance of the Navy's fleet ballistic missile force and the maintenance and modernization of their strategic weapons systems. In addition, resources also support the Trident submarine life cycle logistic support system and the Trident refit program, base operations support, and operations of the naval space systems and strategic

communications. Fiscal year 1992 funding reflects $1.3 million real dollar growth associated with arms control compliance and verification. The strategic forces will be augmented by the delivery of one Trident SSBN bringing the total SSBN force to 41, up from FY 90, but down one from 1989. By FY 1997 an additional Five SSBN's are slated for elimination.

Special Operating Forces

Special Operating Forces have not been hit by budgetary cuts. In fact, even in the face of overall DOD budget cuts the Congressional Conference Committee in acknowledging what it described as a significant shortfall in funding for Special Operations restored $60 million in SOF funding previously cut in the House proposed appropriation for FY 91. The additional funding will bring the account up to $572.7 million. FY 1990 funding has been transferred to the United States Special Operations Command (USCINCSOC) which is assuming management responsibility for the SOF-unique portion of the program.

4. Appropriations, Programs and the Pillars of Defense

The four pillars, force structure, readiness, sustainibilty and force modernization, of defense capability are frequently used when discussing the expenditure of defense dollars. They are used by top level officials when considering policy issues and resource allocations. Officials evaluate how policies and programs support the pillars to determine whether specific programs have the necessary mix of balance and consistency. All DON dollars are assigned to one of the pillars. Therefore, every budget decision affects the four pillars regardless of whether or not they are explicitly considered in arriving at the decision. There are no universally accepted definitions for these four capabilities. However, the following definitions incorporate all the primary features most frequently found in the literature.

a. Force Structure

The number, size and composition of units that constitute Navy forces are the elements of the force structure component of the pillar construct. Budget reductions have already begun to have an affect on Navy force structure. Battle Force ships have been reduced from FY 1989 level of 566 ships to 551 in FY 1990 and further reduced to 546 ships in FY 1991.[Ref. 49] These cuts are projected through at least FY 93, when the total deployable battle force is projected to be 490 ships.

The Marine Corps is budgeted to reflect deactivations of ground combat elements of eight rifle companies, two artillery battalions, one and half tank battalions, three truck companies, a reconnaissance company and one regimental headquarters. Two F/A-18 squadrons, a Hawk Battalion, and a Marine Wing weapons unit are scheduled for deactivation. Associated command and service support elements are also eliminated.

b. Readiness

Readiness is the ability of existing Navy units, their personnel, weapon systems and equipment to function as intended and to be able to deploy and to be employed without unacceptable delays. The Navy measures readiness with reports that cover whether units are properly trained and have the personnel, equipment and spare parts required by war plans.

Table 10

AIRCRAFT FLYING HOUR PROGRAM

ACTIVE FORCES	FY90	FY91	FY92	FY93
PRIMARY MISSION READINESS (%) *	85	87	87	87
FLEET READINESS SQUADRONS (%)	100	100	100	100
FLEET SUPPORT (%)	86	85	85	85
RESERVE FORCES				
HOURS PER PILOT PER YEAR	121	121	121	121

* includes two percent simulator contribution
*source; Highlights of the DON Budget, January 1990

Navy Readiness is evaluated through measurements of fleet operational tempo. The aircraft hour flying program is designed to provide a specified level of Primary Mission Readiness (PMR). Funding through FY 1991 sustains PMR at 87 percent.

The number of steaming days per quarter directly affects ship readiness. Within limits, the more time a ship and it's crew spend at sea, the better prepared it will be to meet the obligations of its mission. As shown in the table below, incremental decreases in OPTEMPO have to be taken by deployed active units and reserve units, while the OPTEMPO of non-deployed active units will increase slightly.

Table 11

SHIPS STEAMING DAYS PER QUARTER

ACTIVE FORCES	FY 1990	FY 1991	FY 1992	FY 1993
DEPLOYED	53.1	50.3	50.5	50.5
NON-DEPLOYED	27.3	29	29	29
RESERVE FORCES	21	21	18	18

*source; Highlights of the DON Budget, January 1990

On balance, the readiness of forces that have survived budget reduction has been maintained in the current budget. To improve the readiness ratings of the Navy and Marine Corps Reserve units an additional $125 million is provided in FY-91 for unspecified equipment.

c. ***Sustainability***

Sustainability is the ability of the Navy to continue fighting in the event of a prolonged conventional war. It usually includes replacement equipment, ammunition, spare parts, fuel and other material required to maintain combat strength in the course of a conflict. It is typically measured in terms of days of supply/ammunition available on short notice. Over the past years the growth of inapplicable inventories has drawn attention from the congressional defense oversight committees. Congressional committee members believe these inventories to be useless and have appropriated a reduction of $400 million in funds appropriated

for inventories in FY 91. The Conference Committees also agreed to reduce Title V, the acquisition of War Reserve material, in light of the reduced concern over the threat in Europe. However, the Committee directs that the War reserve shall not be reduced any further due to the depletion of inventories caused by Operation Desert Shield.[Ref. 50]

Sustainability was influenced by congressional action on the following items.

- termination of 16 inch gun ammo because of prospective battleship deactivations.
- $162 million reduction of spare parts based on the aircraft quantity reductions.
- increase of $125 million in funds for unspecified equipment for Navy and Marine Corps Reserve units.

d. Force Modernization

Force modernization involves the investment in new weapons and equipment which have technological improvements over systems of previous generations. Also included under force modernization are the dollars spent on research, development, test and evaluation. In cutback budgeting, the modernization program seeks to avoid costly stretchouts, continue efficient rates of production, and promote the introduction of newer more survivable weapons. In balancing the need for force modernization against the need to achieve reduced budget levels, the Navy seeks the early termination of marginal programs and the termination of others nearing completion of production runs.

Among the programs proposed for cancellation, the V-22 Osprey was returned to life by Congress through the appropriation of $233 million in RDT&E and $165 million for advanced procurement. Modernization of Naval forces afloat include funding for 14 new ships. Tactical aircraft modernization continues with the purchases of the F/A-18 and E-2C for the Navy and the AV-8B for the Marine Corps. THe Navy will also remanufacture 12 older model F-14A and three EA-6B aircraft into the current, more

capable, configurations.[Ref. 51] The Navy plans to continue the modernization of the EA-6B at the rate of nine in FY 1992 and 12 per year beginning in FY 1993 until all have been modified. The Navy has reduced the planned FY 1992 procurement of F/A-18 from 66 to 54.

Development is continuing on the SSN 21 submarine combat system, the A-12 Advanced Tactical Aircraft program and the ASW fixed distribution system. The P-3 ASW aircraft modernization has been funded to replace the terminated P-7 ASW aircraft. This aircraft was under development as a replacement for the aging P-3. The P-7 development contract was terminated for cause as a result of recurring schedule problems and concerns that the aircraft would be unable to meet performance requirements.

A number of programs have been terminated or deferred due to development problems. They include:

- Airborne Self Protection Jammer (ASPJ): production funds eliminated pending demonstration that previously identified short comings have been overcome.
- T-45 Training Simulator(TS): terminated due to T-45 design deficiencies.
- Advanced Medium-Range Air-to-Air Missile(AMRAAM): slowed production due to continued developmental problems.

In contrast, sealift was the big winner, receiving an additional $1 billion in FY 1991 for the construction of maritime prepositioning ships.

B. THE NAVY BUDGET PROCESS

The Department of the Navy's budget process operates within the confines of the overall Department of Defense and Federal budget systems. The four broad phases of the Navy budget system reflect the embodiment of the DON process within the larger system. Under PPBS, the budget is based on the POM. These phases are (1) the internal preparation and submission of budget estimates from budget submitting activities through the Comptroller of the Navy (NAVCOMPT). (2) Upon SECNAV approval, budget

estimates are forwarded for DOD/OMB review and approval by SECDEF and the President. (3) The DON budget, now as a component of the DOD budget is folded into the President's budget which is submitted to the Congress for scrutiny, modification and approval. (4) Congress, after due deliberation, enacts the budget through appropriating legislation which is followed by OSD apportionment, Navy internal allocation and budget execution.

1. Overview of the Federal, DOD and Navy Budget Process

The Planning, Programming and Budgeting System introduced under Secretary McNamara, is the process currently employed by the DOD/DON for allocating resources to achieve national security objectives. In the broadest sense, this system starts with an assessment of the threat, develops a strategy to confront the threat and derives an initial unconstrained set of requirements to implement the strategy. These requirements are refined into programs which are further winnowed to meet budget restraints. Over the decades since it's inception, PPBS has evolved, both as a reflection of the different management styles of successive Secretaries and as a response to changing world conditions.

a. Planning

It is during the planning phase that the threat to national security is assessed and a strategy to confront the threat is developed. The culmination of the planning phase is the development of force objectives and the provision of planning guidance to the services. The sequential steps of the planning phase functionally mirror Simon's stages of decision making.[Ref. 52] His three stages, search, design and choice closely parallel the following three components of the planning phase:

Assess the current situation
- environmental review
- internal strengths and weaknesses
- objectives

Develop alternatives
- unconstrained strategy and force alternatives
- refinement within feasibility constraints

Select strategy and force levels

provide guidance to support selected objectives

The planning process is built around two documentary processes, the Defense Guidance and the Joint Strategic Planning System. The Joint Strategic Planning System is an iterative fiscally unconstrained process conducted by the JCS which provides threat assessment, policy guidance, strategic guidance, and force planning guidance. It represents the position of the JCS on national security matters and is the JCS input into the Defense Guidance (DG). The DG, prepared by the Office of the Secretary of Defense, provides the services the guidance needed to prepare program proposals and budget submissions.

The Navy is unique in that it is composed of two military services. Planning and programming are delegated to the Navy and Marine Corps and subsequently consolidated for SECNAV approval. The planning efforts of the two services are coordinated by the Office of Program Appraisal.

Programming is the method by which the contents of the DG are honed into a workable slate of financially viable programs. The Program Objective Memorandum contains information on the programs slated for a six year period. It includes information about the fiscal year just ended, the fiscal year currently being executed, the budget year and five outyears. It is an evolutionary document which builds upon previous submissions and highlights the current biennial budget.

The six year defense plan (SYDP) is a programming document organized by appropriation and major program which displays SECDEF's position on DOD's program. The SYDP contains information regarding the manpower, dollars, and force structure necessary for the support of major program areas. The time period under consideration for manpower and dollars range from the fiscal year just completed through the budget year and out five years. Force levels are considered for an additional three out years. The SYDP is updated six times during the biennial budget cycle.

The resource allocation Display (RAD) is a computer generated breakdown of Navy resource allocation displayed from a number of different perspectives.

- resource sponsor
- claimant
- program element
- appropriation
- naval warfare task
- line item/activity group

The RAD is updated repeatedly during programming with it's ninth update being the Navy's POM which is submitted to OSD.

b. Programming

The programming cycle starts with a revision of the estimates contained in the last four years of the previous POM cycle. The POM cycle does not make a fresh start each biennial period. Revision and update are an almost continuous process through the duration of the programming process.

PPBS was modified in 1987 to reflect the introduction of legislatively enacted biennial budgeting, Congressional failure to appropriate on other than a single year basis has led to significant programmatic changes in the off year of he POM.

Each service submits it's POM to OSD for review and approval. The Defense Resources Board conducts a series of program review meetings during which issues of concern are raised and evaluated. The DRB is concerned that total defense balance is achieved through the independently prepared service POMs. Tentative changes are reviewed for combined impact on programs and recommended changes are forwarded for SECDEF consideration.

The POMs also are reviewed by the JCS to assess how well the proposed programs embody national security strategy and threat concerns. The

recommendations of the JCS are contained in the Joint Program Assessment Memorandom (JPAM). DRB recommendations and the JPAM form the basis for SECDEF evaluation of the POMs.

SECDEF POM decisions are issued to each service in Program Decision Memorandums (PDM). The PDM reflects the approved POM and includes modifications resulting from the SECDEF review.

Navy programming begins with reviews of strategy, warfare areas, and support tasks.[Ref. 53] These reviews examine the threat, previous program levels, and the requirements of OSD guidance. After the completion of review and the input of Claimants, Component Commanders and Resource Sponsers have been considered, OP-80 develops the Department of the Navy Consolidated Planning and Programming Guidance (DNCPPG) which represents SECNAV program priorities. The DNCPPG is used to provide guidance to resource sponsors in preparing their program proposals. Based on these recommendations, CNO guidance, and input from related commands the resource sponsors prepare Sponsor Program Proposals. Program proposals are submitted to OP-80 to be reviewed for compliance with higher guidance and the resolution of outstanding issues. Upon presentation to CNO/SECNAV these proposals form the basis for the POM.

c. Budgeting

The budgeting phase of PPBS begins with the approved and modified POM. The services change their respective SYDP's to reflect DOD generated program additions and deletions. From this base, programs are coupled to annual funding requirements. Budget estimates flow up through the service hierarchy and are forwarded for joint OSD/OMB review. Through this review, SECDEF generates Program Budgeting Decisions (PBD) which reflect potential modifications. The services and JCS enjoy a final review and offer comments which SECDEF may consider in the preparation of final service budget proposals. The service budget proposals are combined to form the DOD submission and in turn takes it's place in the President's budget which is submitted to Congress.

2. Comptroller of the Navy Budget Process

The Comptroller of the Navy (NAVCOMPT) is the focal point for DON budgeting. Responsibilities cross all phases of Navy budgeting from formulation through execution and review of performance against projections. The Director of Budgets and Reports is responsible under the Comptroller for the formulation, presentation and execution of the DON budget.

The completion of the Navy POM represents the end of the programming phase of the Navy PPBS process. However, the break between programming and budgeting is not so clean. As detailed in following sections, congressional intervention during authorization and appropriation have resulted in changes to DOD budget line items. The number of line item changes have ranged as high as 60 percent which occurred in FY 1987. These changes routinely increase and decrease the size of programs. As an example, funding was not requested for the V-22 in the DOD FY 1991 budget request. Subsequent congressional action restored funding for this program. By the time congressional action is complete, the following year's POM has already been completed and the budget process for the next fiscal year is well under way.

It is during budgeting that the approximate resource requirements developed during programming are refined to the greatest possible precision and are changed from a program to an appropriation format. The key word with the budget is "executability".[R 54]

a. Department of the Navy Budget Review

The DON budget review consists of the preparation of budget estimates by submitting offices. NAVCOMPT reviews these estimates to ensure that they support the programs resident in the POM and incorporate the guidance of higher authority. Budget estimates must also be executable and supportable during OSD/OMB and congressional review.

The budget estimation process is conducted by the budget submitting offices responsible for the preparation and submission of budget estimates

to NAVCOMPT. These offices control the compilation of estimates from subordinate commands, are called upon to provide justification and testimony, and to prepare responses to changes made by higher authority. The budget estimating system links budget preparation to the organizations that perform budget execution. This linkage promotes the development of well reasoned estimates of required resources by involving management at all levels in the budget process.

The review of estimates is controlled by the NAVCOMPT Budget Evaluation Group (NCBG). The objectives of this review include ensuring POM programs are represented and adequately funded, adequate cost control is used in fulfilling program objectives and that programs are consistent with the guidance of higher authority. The review also allows the evaluation of cost effectiveness in considering alternative courses for accomplishing program objectives. Finally, information or circumstances that have evolved since the completion of the POM that impact resource allocation may be incorporated during the review.

Sources in NAVCOMPT indicate that the quality of the budget estimates received from submitting offices range from excellent to clever to incompetent. In an environment of diminishing resources the emphasis of review of these estimates focuses on the need to minimize costs while providing for priority programs. Upon completion of the review of budget estimates, a Navcompt "Mark-up" with recommended adjustments and explanatory comments is prepared. The budget submitting offices have the opportunity to rebut recommended reductions in a reclama. In the absence of a reclama, these decisions become final. The receipt of a reclama is followed by a full review of the issues surrounding the recommended modification. Issues are generally resolved within NCB. The proposed budget, highlighting decisions made during NAVCOMPT budget review and any other outstanding issues, is presented to SECNAV for final decision.

The internal DON phase of budget review is completed with the submission of budget estimates to OSD/OMB.

3. Budget Review by the Office of the SECDEF and the OMB

Upon completion of the Navy budget review and SECNAV approval, the budget estimates are forwarded to the Office of the Secretary of Defense and the Office of Management and Budget for their joint review, consolidation with the budget estimates of the other services, and incorporation into the President's budget request. This review seeks to ensure that program and budget guidance have been incorporated in the budget estimates.

In the face of budget reductions, interservice rivalry, always a factor in DOD resource allocation, has led to an almost unprecedented level of cross-service poaching. This can be illustrated by the recent verbal brawl between Navy and Air Force contingents regarding the ability of Navy owned, space-based wide area surveillance systems to detect and track Air Force stealth aircraft.

> As the defense budget fight comes to a head, Navy officials make no secret of the view that naval aviation programs are in direct competition with the Air Force B-2 bomber. By showing that long-range stealth aircraft can be detected form space, the sea service can refute claims that the B-2 can replace carrier strike aircraft."[Ref. 55]

This poaching has spilled over into the press and has required SECDEF mediation. This is an indication of increasing pressure by the services to resist the inevitable cuts.

The preliminary review of service budget estimates is followed by hearings to assess program details and lead to the formulation of Program Decision Memoranda (PBDs). PBDs provide the SECDEF with an analysis of the services program and budget requests, highlights problem areas and provides alternative recommendations. Prior to forwarding of PBDs for SECDEF approval, Draft and Advance PBDs are sent back to the services for their review and response. In the Navy process, NAVCOMPT is responsible for the preparation of comments regarding issues raised in these documents. Response time is extremely short, coordination is crucial, and

often1 information resident in far flung DON activities is required. NAVCOMPT is responsible for the internal processing of signed PBDs and coordinates the preparation, review, and submission of reclamas to OSD Comptroller.

Budget issues that remain outstanding may be resolved at one of three forums. Most areas of contention documented by reclama are resolved administratively between NAVCOMPT and the DOD comptroller staff. Significant issues which remain are addressed at a Major Budget Issues Meeting. This meeting gives the Navy the opportunity to address issues raised by the OSD/OMB review. Typically, the CNO and CMC join the SECNAV in this meeting with SECDEF. Finally, areas of disagreement between DOD and OMB may be addressed in the SECDEF Meeting with the President. After each of these reviews, PBDs are issued reflecting the resulting decisions.

These reviews change the budget detail and totals which must be incorporated in the Navy's budget estimates. In order to ensure continuity within this iterative process, NAVCOMPT issues all control numbers. These numbers reflect the decision, constraints and requirements imposed within and by higher authority, and are the base budget numbers against which changes at each phase of the budget process are recorded.

a. Congressional Review

Congressional review of the DOD budget commences with the submission of the President's budget request for the entire government during early February. The President's Budget is the foundation from which Congress makes resource allocation decisions in fulfillment of it's Constitutionally assigned responsibility to appropriate funds for the activities of the Federal government. DON is actively involved in the congressional review phase. Participation includes the preparation and justification of materials in support of the President's position, testimony at hearings, and publication of posture statements detailing an assessment of the current state of the Navy. The Navy role is fundamentally changed during the congressional review. During this phase,

Navy representatives are called upon not to present Navy initiatives but rather to consistently support the President's DOD budget. As the authorization and appropriation legislation winds its way through Congress, NAVCOMPT will be called upon to provide responses to changes in Navy components to the President's budget submission.

The congressional budget review is a complex process inviting the active involvement of many committees and subcommittees.[Ref. 56] Because the defense budget has economic implications for every state, and to some extent every congressional district, all but a few senators and representatives take an active interest, if not active role in the process.

Congressional review has three phases: Budget Resolution, Authorization, and Appropriation. The Budget Resolution requires the approval of both houses and establishes totals for revenues, outlays, budget authority, and the federal deficit. This resolution is not law and does not require Presidential action. However, existing legislation may require changes in order to accommodate the decisions embodied in the Budget Resolution. These changes are consolidated in a reconciliation bill which along with the Budget Resolution fall under the purview of the House and Senate Budget Committees.

It is through the Authorization process that Congress engages in it's primary review of DOD program and resource allocation decisions. Authorization bills provide the legislative authority to establish or maintain a Government program or agency.[Ref. 57] During this phase appropriation totals are set which ostensibly can not be exceeded. The authorizers also detail constraints on DOD activities, set limits and guidelines for specific programs and establish end strength limits. In theory, programs are created or sustained through authorization prior to the appropriation of funds. This relationship is legitimized under Title 10 USC 114 which states that "No funds may be appropriated for any fiscal year to or for the use of any armed forces ...unless funds therefor have

been specifically authorized by law". In fact, congressional action on authorization and appropriation occur almost simultaneously and often contain contradictory provisions. In 1986 for example, the total divergence between authorization and appropriation at the line item level was $6.5 billion.[Ref. 58] The power struggle between authorizers and appropriators continues unabated and presents DOD managers with the treacherous quandary of executing the mandates of one or the other. The House and Senate Armed Services Committees and their respective subcommittees are responsible for this legislation. The House and Senate prepare independent authorization bills that reflect their differing interests and concerns. These bills annually build from the recommendations of the appropriate subcommittees which conduct hearings and perform a detailed review of applicable portions of the President's proposed authorization. They are further debated and amended during full committee review which is followed by presentation on the floors of each chamber. While under consideration on the House and Senate floors any member may propose amendments to the authorization bill. Following the consideration of amendments votes are taken. The House and Senate bills are then considered by a Conference Committee where a single bill is hammered out and returned to each chamber for final approval.

Following or concurrent with authorization process, the House begins the appropriation process. Unlike authorization, the appropriation process generally is performed sequentially with House action preceding the Senate and culminating in the resolution of differences in conference. Appropriation legislation is initiated in the House Defense Appropriations and Military Construction Subcommittees. Hearings are conducted, amendments are considered and at the end of deliberations the bill is brought before the full committee. While before the full Appropriations committee, amendments are again proposed and voted. If approved, the appropriation bill is presented to the House floor for additional debate and the consideration of amendments. As in the authorization process, any

member may propose amendments, subject to parts of order related to deficit ceilings and other rules. After all proposed amendments have been considered, the approved bill is forwarded for Senate action. Senate procedures functionally mirror the House action. Once the Appropriation Bill is approved by the full Senate it is forwarded to the Conference Committee to resolve differences. After differences have been resolved, the bill is reported to the Senate and the House where votes are taken. Once approved by both chambers, the Appropriation Bill is forwarded for Presidential Signature.

In the event that Congress fails to pass all appropriation bills that fund DOD activities by the beginning of a fiscal year, Congress will enact a Continuing Appropriation Resolution. The continuing resolution provides funds required by DOD to continue operations. The continuing resolution includes language limiting the level of spending, may specify spending levels for certain programs, and may address any other congressional spending concern. While designed as a short term solution to the failure to appropriate, the continuing resolution has lasted for as long as an entire year (ie. 1988). In FY 1990, four continuing resolutions were required before an appropriations bill was enacted. The failure to enact appropriating legislation in a timely manner further increases the difficulty of DOD budget execution.

b. Budget Execution

Budget execution is the final phase of Navy budgeting. Enactment of appropriation bills provides authority to spend money in execution of the budget. Funds flow through the Department of the Treasury after OMB certification. Treasury establishes specific amounts which may be executed by Departments and agencies according to appropriation line items detail provided by Congress. OMB apportions the appropriations to the Federal departments. Subsequently, DOD further apportions the budget among the military departments and services. NAVCOMPT allocates the funds

out to the responsible claimamcies, which in turn allocate funds to sub-organizations to the command and budget activity levels.

C. CONCLUSION

The data developed in this chapter provide a basis for analysis in Chapter III. The historical, current and projected budget data were viewed from the perspective of appropriation, program and the pillars of defense in addressing the research questions indicated in Chapter I. Specifically, the data base was designed to facilitate the evaluation of the actual decrements from multiple perspectives to better understand the impact of reductions. Further, the data base permits analysis of DON resource allocation decision making using the Jones and Behn models of cutback budgeting.

III. ANALYSIS OF THE DEFENSE BUDGET, PROGRAM AND PROCESS

A. INTRODUCTION

This chapter addresses the following research questions using the budget data base developed in Chapter II.

- What are the overall, summary trends in funding levels in the DON budget?
- What impact did the FY 1991 reductions have on the DON?
- What changes have occurred to the DOD/DON budget process as a result of reductions?
- How do DOD/DON budget reductions correspond to Jones and Behn's model of cutback budgeting?

Analysis of the budget process according to the theories of Jones and Behn requires descriptions of their models. This analysis is applied to the data used to answer the other questions to give a better understanding of the budget process, budget reductions and the impact of budget reductions in the present and out years.

B. SUMMARY TRENDS IN DEFENSE AND NAVY FUNDING LEVELS

The data presented in Chapter II indicate a number of trends in DOD/DON budgeting. The following section begins with an analysis of the trend between appropriations and the DOD/DON topline real dollar changes indicated in Chapter II. This is followed by a discussion of the relationship between the funding of Strategic and Conventional programs.

1. Appropriation Trends

The data detailed in Chapter II clearly show that funding for Procurement, Operations & Maintenance, Manpower and Research, Development, Testing and Evaluation accounts has changed significantly over time. The following analysis addresses these trends.

The defense budget has been shrinking since 1985 when DOD budget authority peeked at $287 billion. Budget Authority has declined in real dollars each year since FY 1985 and is anticipated to decline through at least FY 1995. Through FY 1990, real annual decrements have ranged from a low of 1.3 percent in FY 1989 to a high of 4.4 percent in FY 1986. The cumulative real dollar decline from FY 1985 to FY 1990 was 13.6 percent. By FY 1995, the real cumulative decline is expected to reach 22.4 percent.[Ref. 59] At $223 billion in indexed FY 1985 dollars, the FY 1995 DOD budget will reach its lowest level, measured as a percent of GNP or total federal spending, since World War II. During the Reagan buildup from FY 1980 - FY 1985, the procurement accounts grew radidly as a percentage of the DOD budget (Figure 5). Common size analysis indicates that procurement rose from approximately 25 percent of the total base in FY 1980 to 34 percent by FY 1983. The "bow wave" effect caused by the rapid introduction of new programs sustained the procurement accounts through FY 1985. By FY 1986, procurement began to fall and in FY 1991 the decline reached 24 percent of total DOD budget putting it at a level below that of the pre-Reagan buildup.

By contrast, the RDT&E accounts remained relatively constant at around 10 percent of the DOD budget during the Reagan buildup. Real dollar growth for these accounts ranged from a low of -1.1 percent in FY 1980 to a high of 14.5 percent in FY 1982. Unlike procurement, real growth in RDT&E as a percentage of the total budget, continued through FY 1987 and by FY 1991 had reached 14 percent of the DOD budget. The inverse relationship between these accounts reflects choices between continuing the production of current generation weapon systems versus the development and deployment of the next generation of weapons incorporating new technology. The military departments and services have demonstrated willingness to curtail current force structure to continue development efforts.

Figure 5. Appropriations as a Percent of Total DOD Budget
*Source: National Defense Budget Estimates for FY 1990/91

DON budget projections reflect a force structure of fewer than 500 ships by FY 1997. "In a period of budget downturn, the services protect new weapon designs because officers consider them the seed corn of the next generation."[Ref. 60]

The MILPERS accounts declined steadily as a percent of the DOD budget from the end of the Vietnam conflict through FY 1985. Funding for MILPERS Navy declined in real terms during each year of the 1970s from a high of $23 billion in FY 1970 to a low $17 billion in FY 1979. Throughout the 1980s, funding remained almost flat, with annual real growth greatest in FY 1987 at 6.5 percent and lowest at of -3.5 percent in FY 1986. Through FY 1990, end strength reductions have been accomplished through normal attrition and voluntary early-out programs. To date, the MILPERS and services have not been compelled to make hard decisions in the reduction of end strength. The limited reductions taken so far have not required involuntary reduction in forces or forced retirements. Congressional hearings have been conducted to consider alternatives to increase attrition including separation pay for enlisted personnel, increased separation pay for officers, and retirement alternatives for service less than 20 years. However, the FY 1991 Defense Appropriations Bill reduced military end strength significantly by 78,600. This is in addition to the 20,000 cut proposed by DOD for FY 1991. U. S. forces in Europe will be reduced by 50,000 in FY 1991. In contrast, the FY 1991 Authorization Bill legislated a 100,000 cut in end strength. These cuts will be borne by all services with the Army taking the largest cut of 42,000. The rest of the cuts were distributed with Air Force cutting 35,000, the Navy 20,000 and the Marine Corps 3,000. Secretary Cheney has proposed steady end strength reductions from the 1990 level of 2.1 million to 1.6 million by 1995.

The current deployment of 400 thousand American servicemen to the Persian Gulf confuses projection of end strength reductions. During congressional hearings on the impact of Desert Shield, Senator John Glenn (D-Ohio) stated his concern about reducing active military end strength.

"It is clear to me that the Pentagon cannot carry out the Persian Gulf deployments and make the 100,000 reduction in active duty strength Congress ordered by October 1, 1991." In fact, both the Army and the Marine Corps have found it necessary to prevent active duty personnel from leaving the service in order to support Operation Desert Shield.

O&M has shown constant growth in real dollars since FY 1975. The account increased from $26 billion in FY 1975 to $91 billion in 1990. From FY 1975 to FY 1980, O&M also increased as a percent of the total DOD budget, peaking in FY 1980 at 33 percent. Even though O&M decreased as a percent of the total DOD budget during the Reagan buildup, it increased in real terms by $39.2 billion. During the builddown from FY 1985 to FY 1989, O&M accounts have remained relatively constant as a percent of DOD budget. The O&MN account followed the DOD trend during this period. During the buildup, O&MN peaked at 31.6 percent of the total DON budget (Figure 6). Since FY 1985, O&MN has constantly declined as a percent of the total DON budget. This constant decline has reduced the FY 1991 O&MN account to 23.5 percent of the total DON budget. In constant dollars it has fallen from $32 billion to $27 billion.

O&MN funding appears to be inversely related to the funding of the Navy Procurement accounts. Since FY 1970, changes in the O&MN accounts have been accompanied by opposing changes in the procurement accounts. During the periods (1974-75,1979-81,1985-86) the two accounts represented approximately the same proportion of the total DON budget.

Throughout the period, FY 1970-90 the trend between DON appropriation accounts closely matched the trend in DOD funding. It appears in both cases that the rapid build-up of procurement during the first Reagan Administration was funded at the expense of O&M and MILPERS accounts. Conversely, after procurement peaked in FY 1985 and began its descent, O&M and MILPERS gained as a portion of the DOD/DON budgets. RDT&E also gained as DOD priorities transitioned from continued procurement of existing weapon systems to the development of next generation weapons.

Figure 6. Appropriations as a Percent of Total DON Budget
Source: Federal Budget Reports (FY 1972-90)

2. Conventional Versus Strategic Programs

The emphasis on increased defense funding for high technology strategic weapons during President Reagan's tenure in office has continued by the Bush Administration. In remarks by President Bush to the Aspen Institute Symposium on August 2, 1990, he stated his position on strategic deterrence and the weapons required to deter.

> The Soviets will enter a START treaty with a fully modernized, highly capable and very large strategic force. To maintain clear and confident strategic deterrence into the next century we need the B-2.

In light of a reduced budget, DOD/DON will have to make difficult decisions between spending on the modernization of strategic forces or maintaining conventional forces. This section analyzes trends in the funding of strategic and conventional forces.

From FY 1980 - FY 1985 spending on the procurement and support of strategic forces grew 114 percent over inflation. During this time frame, the Navy portion of the strategic procurement budget grew approximately 25 percent. "Despite a 22 percent reduction after inflation from FY 1985 - FY 1989, funding for DOD strategic forces remained approximately 66 percent higher in constant 1989 dollars in FY 1989 than it was in 1980."[Ref. 61] The FY 1991 budget includes continued support for the modernization of each leg of the strategic nuclear triad. The President's FY 1991 budget request reflects continued support for the Trident II missile, the Peacekeeper Missile, small intercontinental missiles, B-2 bomber, and advanced cruise missiles. DOD planning estimates still reflect an average 2.2 percent real growth in strategic procurement funding between FY 1990 and FY 1996, peaking during FY 1993 at $14.9 billion. The strategic program growth envisioned by DOD has not been matched by sufficient reductions in conventional forces to keep within the bounds of Budget Enforcement Act constraints.

Despite the Bush Administration's continued support for strategic programs, the House Armed Services Committee boosted funds for conventional weapon systems at the expense of strategic systems in FY

1990. In addition, the Armed Services Conference Committee added funds for the V-22 and F-14D largely through a 17 percent reduction in the President's request for the B-2 bomber. The poaching of strategic programs continued in FY 1991 congressional action. The President's FY 1991 budget request for the following strategic programs were among those reduced by the Armed Services Conference Committee.

Table 12

STRATEGIC PROGRAM REDUCTIONS ($ millions)

Program	Request	Appropriation	Difference
B-2A	$2,495	$2,349	-$146.6
B-2A (AP-CY)	$710	$0	-$710.0
B-1B	$134	$69	-$64.3
B-52	$109	$58	-$50.5
MX MISSILE	$1,727	$655	-$1,072.0
SDI	$4,195	$2,890	-$1,305.0
TRIDENT II (R&D)	$90	$70	-$20.0
TOMAHAWK	$808	$658	-$150.0
TRIDENT SUB	$1,387	$1,244	-$143.0

*source: Conference Report, DOD Appropriations, October 24, 1990

In response to Operation Desert Shield the administration has proposed conventional missions for the B-52 and the B-2 to counter eroding support for these programs. Critics have referred to Operation Desert Shield as a lobbyist's dream because it has diverted attention from the "peace dividend" and has forestalled program terminations. "The defense contractors are going to cash in," says Congresswoman Pat Schroeder, a senior member of the House Armed Services Committee. "There are days when I wonder if they didn't put Saddam Hussein up to this whole thing." [Ref. 62]

As of November 1990 the Navy had not yet proposed a conventional role for the SSBN. The Navy's D-5 strategic missile production is funded for 52 missiles in FY 1991, but falls to 48 in FY 1992 and further to 44 in FY 1993. One new Trident SSBN is funded for construction in FY 1991. Reprogramming of $203.4 million was requested to fund the termination of

the Trident Missile submarine by DON after delivery of the 18th hull. Plans to decommission one SSBN during FY 1992 have been modified, increasing the inactivations to three followed by five more in FY 1993. Operations and Maintenance support for Navy strategic programs projects growth from compliance verification for arms limitations agreements and costs associated with the increased decommissioning rates.

C. IMPACT OF BUDGET REDUCTIONS

1. Introduction

As of the first part of FY 1991, budget reductions have had a pervasive impact on the activies of DOD/DON. The scramble for resources has intensified competition both within and among the services. It has led to changes in the way the Defense Department does business, reinvigorated the search for management and organizational efficiency improvements, and to some extent has changed the budget process itself. The magnitude of the impact of budget reductions has led some to say that "...budgeting now almost drives the mission requirements."[Ref. 63]

2. Procurement

Arms procurement and spending has been reduced to an issue of affordability without clear definition of changes to the force structure. Congress and DOD are scrambling for FY 1992 to define the strategic defense plan and program and to further determine how to meet these needs with long range procurement from FY 1992 to 1997.

House Armed Services Chairman Les Aspin warned that Congress will impose a "Pork Strategy" unless the Pentagon budget reflects the reduced Soviet Threat and emerging U.S. requirements which, in his view, were not included in the FY 1991 DOD spending proposal.[Ref. 64] Also, in April of 1990, the House Budget Committee Chairman, Leon Panetta, delayed setting a budget target until a six year defense plan (SYDP) was established that reflected changes in the world situation. [Ref. 65] In addition to redefining the threat and force

structure, Congress, the DOD, and the individual MILPERS are all attempting to define their long-range procurement needs. For example:

- Navy requested $1.5 million in FY 1991 to begin concept definition studies.[Ref. 66]
- Aircraft procurement plans are being assessed in the Navy's Carrier Air Wing Study 2010 in an attempt to match requirements and acquisition plans.[Ref. 67]
- Project February was an attempt to develop Naval Aviation needs for the next 20 years.[Ref. 68]

In mid-1990 OSD conducted Major Ships and Aircraft reviews that caused the Navy to reassess force structure.

It is particularly important for the procurement program of DOD/DON to have a clear definition of goals and needs. The long duration of the production process for items like aircraft and ships, and the budgetary practice of full funding /advance procurement mean that short-notice changes in funding have a negative effect on the production processes and actions.[Ref. 69] Changing rates of production affect fixed and variable costs, incurring inefficiencies as economies of scale disappear.[Ref. 70] Exogeneous changes to the procurement funding plan are nearly always detrimental to efficiency. As a percent of the total DON budget, funding has fluctuated in procurement more than in any other area[Ref. 71] (Figure 4).

In the face of budget reductions there have been efforts by the President and the MILPERS/services to improve the acquisition and budget process. In July 1989, in response to President Bush's order to improve defense management practices, Secretary of Defense Cheney, issued the Defense Management Report (DMR). The DMR provids a plan to implement many of the Packard Commission's recommendations to substantially improve the performance of defense acquisition systems and to manage more effectively the department and its resources.[Ref. 72]

The DMR initiatives are designed to achieve six broad goals:

- reduce costs while maintaining military strength.
- enhance weapon systems program performance.
- reinvigorate the planning and budgeting process.
- reduce micromanagement.
- strengthen the defense industrial base.
- improve observance of ethical standards in government and industry. [Ref. 73]

As a result of these initiatives, a more streamlined acquisition process is the goal of the MILPERS and services. A streamlined acquisition management structure would develop clear lines of responsibility and authority running from the Under Secretary of Defense for Acquisition through full-time service acquisition executives, full-time program executives and full-time program executive officers to individual program managers.[Ref. 74] A new Under Secretary for RDT&E may also be created within OSD to improve efficiency and research planning, programming and budgeting.

Using the DMR as its guide, the Department of Defense has identified initiatives to save about $2.3 billion in fiscal 1991. Over a five year period, FY 1991-1995, the cumulative savings have been projected at approximately $39 billion.[Ref. 75]

"All three Military Departments are implementing acquisition streamlining by tailoring implementation to their own institutional styles and approaches."[Ref. 76] For example the Navy has integrated acquisition streamlining into a Navy wide productivity program called Action 88. The Action 88 program combines streamlining with value engineering, use of nondevelopmental items (NDI), better use and content of specifications and standards, and productivity improvement support by recognition and training programs.[Ref. 77] All of this is

consistent with the Navy's concurrent implementation of the Total Ouality Management (TQM) program.

In addition to streamlining the acquisition process, in 1990 the Pentagon proposed a Defense Management Improvement Act, aimed at improving military spending. "The proposal would allow the Pentagon to waive acquisition rules for up to six programs, bolster the use of commercial goods and make it easier for small contractors to win government business. The proposed legislation was sponsored by Senators Sam Nunn (D-Ga) and John Warner (R-Va) at the Defense Departments request."[Ref. 78]

Table 13

DMR SAVINGS PROJECTED IN THE DOD BUDGET

(Dollars in Millions)

CATEGORY	FY 1991	FY 1991-1995
Logistics/Acquisition	1,450	21,000
Administration	300	3,700
Civilian Substitution	20	500
Automated Support & Information Systems	30	4,300
Finance, Procurement & Contract Management	200	3,900
Consolidation Studies	300	5,600
TOTAL SAVINGS	**2,300**	**39,000**

***source; Congressional Budget Offic· August 1990**

The Defense Management Improvement Act has met some difficulty in gaining approval from Congress. Some congressmen have reacted cautiously because they are fearful that it is a dodge to exclude big projects such as the Navy's advanced tactical fighter from normal acquisition rules. Another complaint from Congress about the Defense Management Improvement Act is that the language is "very obscure" except to acquisition professionals.[Ref. 79]

A controversial section for Congress is provision for Secretary Cheney to waive many acquisition laws and regulations for six project test programs. Congress argues that the proposed act does not clearly establish which laws and regulations will be waived.[Ref. 80]

Whether streamlining or the Defense Management Improvement Act will reform military buying is yet to be seen. However, it does indicate that the acquisition process will be changing in response to more defense budget reductions.

Cost overruns, program cuts, delayed production and congressional micromanagement all occur simutaneously in an attempt to meet mission needs in the face of projected budget shortfalls.

Such adjustments to procurement threaten to seriously alter the future of the defense industry. Reductions have caused increased costs due to decreased production rates and program stretch outs. Older weapons are pressed into longer service because replacements will take longer to reach the services. These trends threaten to erode the industrial and technological base necessary for the development and fielding of future weapons systems.

There is a limit to how low production rates can go before they become uneconomical for the DOD/DON and contractors.[Ref. 81] For example, the helicopter force is in danger if the Army's LH is cancelled.[Ref. 82] Currently, it is predicted that the losing contractors may not be able to stay in the helicopter production business.[Ref. 83] Department of the Army procurement plans call for 2,096 helicopters but Secretary Cheney is considering reductions as low as 1,292. This would be a significant drop in yearly production. Competing companies might see peak production as low as 108 units per year.[Ref. 84] Contractors must show in the Demonstration/Validation phase of procurement that they would produce below a $7.5 million per unit ceiling regardless of changes in quantity.[Ref. 85]

The high price of new technology has caused the acquisition process for major weapon systems to increase in development time. Constrained by budget reductions, Secretary of Defense Cheney has been forced to extend the procurement of some weapon systems. As Professor J. Ronald Fox of the Harvard Business School points out, a lengthy acquisition process:

- leads to unnecessarily high cost of development
- leads to obsolete technology at the time of deployment
- leads to conservative (ie high) threat estimates[Ref. 86]

The Air Force's ATF illustrates Fox's point. A review of the ATF by Secretary of Defense Cheney left open the possibility of delaying the development of the ATF by two to three years. Delay of the ATF, which is still in the prototyping phase, has lead to a $40 million increase of cost per aircraft, which is $5 million more than the target ceiling price.[Ref. 87] The delay would also cut into the Air Force's expected technology edge by two to three years, which gives the Soviets a two to three year cushion to counter the technology.

In the case of defense systems, production rates are dictated, often indirectly, by constraints set by the Congress, the Office of Management & Budget (OMB), Office of the Secretary of Defense (OSD), and military departments and services.[Ref. 88] Annual review required by acquisition regulation has caused Congress, OMB, OSD, and military department services to immediately curtail the procurement of some weapons systems to stay within budget constraints.

3. Impact On The Industrial Base

Budget reductions have caused major repercussions in the defense industry including the decline in finacial viability the number of defense contractors and subcontractors. The number of U.S. companies producing defense-critical hardware declined from 118,000 in 1982 to fewer than 40,000 in 1987, according to a study by the Center for Strategic and International Studies.[Ref. 89] "Experts voice concern that the

critical secondary and third tiers of defense subcontractors, long considered the most vulnerable to budget down swings and DOD profit policies, have already seriously eroded."[Ref. 90] The primary reason for the decline in the defense industry is if companies cannot make a profit in the defense market then they will turn to more profitable areas in which they can produce net income.

Since 1985, Pentagon procurement outlays have dropped $23.2 billion in constant dollars, or almost 16%.[Ref. 91] This reduction has taken a toll on the financial statements of defense companies. The stock prices of government contractors illustrate the impact of budget reductions on industry. "Stocks of major government contractors such as General Dynamics declined 30 percent, Grumman fell 20 percent, and shares of McDonnnell Douglas lost 50 percent of its value."[Ref. 92]

The debt to equity ratio, which measures the percentage of total liabilities to total equity, among ten top defense contractors doubled over the past seven years, from 14 to 37 percent.[Ref. 93] This means that the ability of firms to meet interest and principal payments on medium and long-term debt and obligations has been degraded, increasing their threat of bankruptcy or at least diminishing their over all financial strength. These developments, coupled with a reduced progress payment rate by DOD have further eroded already tenuous cash flow positions.

The inability of these firms to earn a profit due to budget reductions has forced many to look elsewhere for funding. For instance, Martin Marietta, General Dynamics, TRW and Lockheed have been looking to grow in such areas as information technology, where they have already gained expertise through their defense work. "In July, Lockheed decided to close its two-year-old federal computer contracting office, which had won only one $15 million job. Large contractors also plan to curtail subcontracting, keeping more work for themselves."[Ref. 94]

4. Problems Encountered by Technology Base

"Our forte is technology. We have always tagged five to seven years ahead of the Soviets and our other would be adversaries that use Soviet supplied equipment."

General Robert D. Russ, USAF
Commander, Tactical Air Command
(National Defense July 1990)

As General Russ pointed out, the U.S. has long relied on a technological edge in its weapons to deter threat. With the budget induced changes in the acquisition process the technological advantage enjoyed by the U.S. is in danger.

The reduction on the defense budget has forced the Pentagon to decide between purchasing fewer high-tech weapons or relatively more low-tech, low-cost weapons. The procurement of high tech weapons costs more. For example, the Air Force's Advanced Tactical Fighter (ATF) which is intended to replace the F-15 and F-16 is projected to cost approximately $56.4 million per unit. This price tag has caused the Air Force concern that the ATF would be vulnerable to cancelation which would mean a loss of the technical edge needed against Soviets SU-27 and MIG-29.[Ref. 95]

The Air Force also has relaxed its avionics requirements for the Advanced Tactical Fighter in an attempt to hold down costs that have already exceeded their targets, and has reduce technical risks during the planned ATF development program.[Ref. 96] These development programs may have implications for the Navy's future aircraft purchases.

5. Problems Stemming From Reduced Production Rates

Other effects of budget reduction are cuts in production rates and program stretch-outs. Because of the expected long range reduction of U.S. defense spending plans - a $200 billion cut between now and 1994 - the military is left with essentially two hardware options. "It can either produce a limited number of new technology programs, such as the V-22, A-12 and the ATF, or modernize and extend the service life of existing aircraft."[Ref. 97] The stretch-out of weapon systems, such as

the F-14, result from pressure on the Navy to stay within its reduced budget and the expense associated with high-technology weapons. For example, the Navy may stretch-out production and delay deploying new carrier based aircraft, including up to a five year delay in fielding an F-14 replacement.[Ref. 98]

The cost of the A-12 Avenger 2, one of the new carrier-based aircraft the Navy is developing, has been estimated as high $92.6 million per aircraft.[Ref. 99] This cost has caused the Navy to stretch the life of the A-6 aircraft which the Avenger 2 was scheduled to replace. Increased cost estimates and falling budgets already have reduced total planned program requirements from 854 aircraft to 620. The future of the A-12 is now further clouded by revelations that the program overrun is approaching one billion dollars and that the aircraft does not meet performance requirements. Congressional and DOD displeasure have resulted in the termination of the program's senior Navy managers and increased congressional scrutiny. The A-6 was to be replaced by the A-12 in 1994-95. However, current estimates indicate that A-12 introduction will be sometime around the year 2000.[Ref. 100] Although increased cost from program delay has yet occur for the A-12 it has already begun to stretch the life of the old A-6 airframe.

Another airframe called upon for extended service is the F-14 Tomcat. "The Navy and Grumman are conducting fatigue tests to determine if the F-14's maximum service life can be stretch from 7,500 to 9,000 hours."[Ref. 101] The reason for these tests is the stretch-out of procurement of the NATF.

The NATF is a version of the Air Force's ATF, which the Navy and Air Force have jointly developed. As mentioned, procurement of the ATF is suffering from budget induced project delays which inexorably lead to a higher cost. The problems of the ATF apply to the NATF, and the Navy is experiencing difficulty in procuring the replacement for the F-14.

The production of the F-14D was cancelled for Fiscal Year 1990. The preliminary budget request for FY 1992 contains only funds to continuing remanufacturing F-14A fighters into the D configuration. [Ref. 102] The overall impact of budget cuts is a decline of 66 F-14s through 1994. A study by the Comptroller General of the United States, regarding the F-14A aircraft procurement concluded that a procurement reduction of 66 airframes and an increase in the time during which they would be produced has raised the estimated program cost by $2.3 billion - about 38 percent.[Ref. 103]

D. CHANGES IN THE BUDGET PROCESS

1. The Budget Process During Retrenchment

The FY 1991 Appropriations Bill that was reported out by the House and Senate Appropriations Conference Committee is a clear signal that business as usual prevailed in the congressional annual allocation of defense dollars. The Conference Committee report contained 145 pages dedicated almost exclusively to changes to the President's budget request. Congressional action resulted in a large number of line-item changes affecting many programs. While the reduction to the President's request was significant, the absolute value of congressionally mandated appropriations was even larger.

For example, the DOD RDT&E accounts were reduced by only two tenths of one percent, while the absolute value of the individual changes equalled 16 percent of the President's request for RDT&E.

It is clear that Congress intends to remain inextricably involved in the details of DOD programming and budgeting, and that Members are quite willing to supplant DOD interests with their own. While the Conference Report claims a $19 billion reduction from the President's defense budget request, the actual amount appropriated includes several billion dollars in funding for unrequested programs. Congressionally earmarked funds for programs were spread as widely for FY 1991 as in previous years. For example, Sen. Ted Stevens, R-Alaska, complained about the $1.6 billion in

research funding directed towards ten major universities, stating, "The people from the good old boy league continue to pull one another up by their bootstraps and throw federal money at universities." Constituent advocacy extended to such items as a children's museum to be located in New Jersey and a Japanese-American museum for Senator Mark Hatfield's Oregon constituents.

Even as Secretary Cheney ordered an extension of the domestic defense facilites construction moratorium, members of Congress successfully added funding for Reserve and Guard construction projects in their districts. For example, congressional authorization for Army Reserve construction exceeded the President's request by over 400 percent.[Ref. 104]

In part, detailed congressional review of the DOD budget and subsequent congressionally mandated changes, stem from reduced DOD credibility on the Hill. This is evidenced by a widely expressed view in Congress that the President's budget is "dead on arrival." Critics contend that the vision reflected in the request does not contemplate the current strategic environment. Congressional leaders are willing to exert their own authority to build what they view as a credible force if the Pentagon and the Bush Administration are unprepared to present what Congress considers a coherent rationale for the proposed budget and program mix. The Administration's continued advocacy of large dollar strategic programs at the expense of conventional forces is at odds with a growing block of legislators who view that the threat environment has changed. In the case of the B-2 bomber, for which the Air Force has proposed new conventional roles, congressional representatives have asked whether a billion dollar airplane is required to perform a $40 million job.[Ref. 105]

For several years Congress has slashed the Strategic Defense Initiative to fund their own program priorities. In FY 1991, the switch tactic extended to other strategic programs. One senior Navy planner expressed a view in concurrence with congressional action that DOD's

preoccupation with the strategic mission has relegated other threats such as Low Intensity Conflict (LIC) to the status of "Lesser Included Cases."

While Congress has been vigorous in protection of many constituent interests, DOD/DON resource sponsors and programming staffs have failed to program requirements to reflect real world resource constraints. In response to anticipated cuts, program advocates have been overly optimistic in projecting program costs, risk and capability. In gaming within the PPBS process, program managers and advocates may be inclined to present their programs as being further along the development process than might arguably be the case. While Congress may be faulted for inserting unwanted programs into the DOD budget, DOD programmers might be accused of promoting their projects until media and public notice is attracted.

The President's FY 1991 budget request for DOD reflected cuts that were below the estimated rate of inflation for the year. However, the Appropriation Conference Committee cut the President's request even further. The cuts that Congress imposed on the President's request will have a significant impact on how DOD and the services budget in the future. The cuts will effect the military department formulation of budget requests for years to come. These low appropriations have to be taken into consideration when budgeting for the out years. As VADM Richard Miller Ret., former Navy Director of Budget and Reports, points out, "When the topline decreases as much as it has in FY 1991, it makes it difficult to project the budget in the out years."

The difficulty in developing meaningful budget estimates in the out years has been exacerbated thus far by DOD's unwillingness to suspend production of a program, treating previously invested funds as sunk costs. The tendency is to reduce the number of ships, aircraft and weapon systems in the budget while continuing to increase buy rates in programming. This was confirmed during interviews conducted with a NAVCOMPT offical. When asked "What process did NAVCOMPT use in formulating the budget request for FY 1991?", the response was, that first NAVCOMPT reviewed construction

contracts to determine if payments were required. If no payments were required NAVCOMPT decided whether it would be prudent to continue production in FY 1991 and in the out years. In programs where no payments were required, cancellations and rebalancing were used to determine if acceptable reduction levels could be made to that program. At this stage of retrenchment, budgeting for new programs is not possible; the objective is to make program cuts. In the earlier stages of budget reduction it was possible to offer up offsetting reductions in order to get new items into the budget. The experience of the FY 1991 budget process was that it was easier to propose the termination of a program than it was to actually execute the termination of that program. Actual program cuts were only possible for programs that failed to find shelter under the congressional umbrella and only a few programs were cut significantly in FY 1991. In the words of RADM Williams, Director of the Navy's Office of Legislative Affairs, "The Serengeti Principle had been invoked. The slowest and weakest animals on the plain are the first to be eaten. Those which can be broken away from the protection of the herd are had for breakfast."[Ref. 106]

E. THEORTICAL MODELS OF BUDGET RESTRAINT

1. Introduction

A model, developed by Professor L. R. Jones of the Naval Postgraduate School, indicates the manner in which public organizations recognize and attempt to manage financial crisis and prolonged financial stress. This model may be applied to evaluate the DOD/DON budget reduction.

Initially it may be observed that the public and the economy have become dependent on government and defense spending. Government spending promotes public works and defense projects and provides jobs. During times of growth, managing government is less difficult than during times of diminishing resources. Federal government and defense managers with little experience in cutback budgeting are facing the burden of developing reduction policies and programs.

As Jones points out, the retrenchment of funds exerts numerous difficulties in managing government programs.

> The retrenchment game is not particularly attractive to politicians no longer able to reward constituents, to public managers desiring to preserve their programs and jobs, or to citizens benefiting from the provision of transfer payments and services by government. [Ref. 107]

The inability to spread funds among congressional and DOD constituents, puts the defense manager in a precarious position. Public support generated during times of an expanding economy may be jeopardized if the defense manager is forced to support budget reductions. By supporting policy which the manager believes is in the best interest of constituents he may in fact be undermining his position relative to operational efficiency of his agency. This directly effects the policies and programs proposed in formulation of a balanced program and budget.

2. Application of the Jones Model of Financial Restraint Responses

The Jones model is intended to provide information to public managers, policy analysts and others on methods for improving the management of retrenchment.[Ref. 108] It is based upon research on the cutback experience of a number of government agencies. The model describes six categories of financial crisis. This framework consist of four categories based on the work of Allen Schick. Jones supplements this framework with two additional phases that the federal and defense agencies are likely to encounter as the retrenchments reach into the 1990's.

The model includes the following categories of financial crisis:

a) relaxed scarcity - where revenues in constant dollars(C$) just equal expenditures for a period of one to five years.

(b) chronic scarcity - where revenues fall short of proposed expenditures by less than five percent for a period of one to five years.

(c) short-term acute scarcity - where revenues fall short of proposed expenditures by greater than five percent for one or two years.

(d) prolonged acute scarcity - where revenues fall short of proposed expenditures by greater than five percent for more than two years.

(e) long term-austerity.

(f) financial recovery and continued austerity.

For each of these categories, the Jones model for public organizations catergorizes typical policy responses. These policy responses are divided into the general categories listed below:

Phases of Recognition and Management of Financial Crisis in Public Organizations

Timing and degree of scarcity	Phases Events (under assumption that revenues continue to be reduced through phase 7)
6 months	1. Ignoring that a crisis exists; moderate reduction in expenditures; crisis termed "only temporary."
to	2. Short-term across-the-board expenditure cuts made and attempts to increase revenue from existing sources instituted.
2nd year	3. Recognition that crisis may persist for longer period (more than one year); casting the blame for causes of the crisis; ad hoc "invisible" expenditures reductions (e.g., in capital plant maintenance or depreciation funding).
Relaxed and chronic scarcity	
1st year	4. Broader across-the board expenditure reduction; salary and hiring freezes imposed; intergovernmental revenue assistance sought, new sources of revenue sought; efficiency-oriented program cost studies instituted; workload cost measures improved; "softer" nonessential services reduced; mandated programs examined for reduction.
to	5. Across-the-board reductions continued, accompanied by additional reductions in specific programs; some employee layoffs occur; improvements sought in revenue forecasting; program and policy evaluation undertaken more seriously; unions and employee organizations resist further 3rd year cuts in salary; "hit lists" of programs for possible termination developed upon traditional criteria; the rumor mill picks up steam and employee tension increases. Employee training and development, staff services and non-essential public services reduced further or eliminated; borrowing capability weakened or lost; some mandated programs discontinued.
	6. Across-the-board and specific

	program reductions cause more employee layoffs and job terminations; specific programs are terminated with some functions
Chronic to short-term acute scarcity	absorbed by other units; some employees transfer to other units; employee morale and productivity drop; some skilled and highly valued employees seek jobs outside the organization; negotiations held over tradeoffs between salary reductions versus more employee layoffs and terminations; organization heads recognize need for better and more comparable program information; user fees increased or instituted.
	7. Further program terminations contemplated or implemented; leaders recognize need for longer-term strategic planning to integrate program and financial strategies; need for restoring some expenditures recognized (physical plant maintenance and capital investment, employee training); program priorities and decision criteria established;
Prolonged acute scarcity	consultant assistance sought; revenue base and structure analysis begins; organizational leaders use political contacts and leverage in attempt to gain revenues or avoid further reductions; credit ratings weakened; processes developed to improve employee participation in program/service delivery planning and evaluation; fees, charges, and other discretionary revenues increased; organizational leadership may change.
3rd year	8. Development and implementation of long-term program and financial planning; organization missions and objectives renegotiated; new revenues courses expand rev[illegible]es to balance budget at reduced [illegible]enditure level; employee layoffs a[illegible] terminations
to	discontinued;organization invest in market analysis to complement internal program evaluation; pricing policies, service demand changes and segmentation studied, and budgetary strategies examined and modified.
5th year	Continued austerity conditions accepted; reorganization plans considered; credit ratings stabilized; greater involvement of external participants.
Prolonged acute scarcity to long-term	9. Implementation of program, financial and market plans; reorganization of functions and responsibilities undertaken; revenues and expenditures

austerity		balanced for one or two successive years; some service responsibilities eliminated through contracting out, privatization an other means; greater citizen involvement in service prioritization over long-term; salary increases instituted and some new employees hired in specialized areas; attempts at marketing new organization missions and objectives undertaken. Employee productivity and morale improved; confidence in leadership strengthened.
Beyond 5th year	10.	Revenues and expenditures balanced over multiyear period; renewed capability for borrowing results from improved credit rating; some old debt refinanced; search for new solutions to social problems; development and testing of "utopian" technologies and service approaches; reformulation of intergovernmental revenue authority
Long-term austerity and financial recovery		negotiated and shifted; recognition that some service and revenue problems will persist; improvement made in integration of program and comprehensive financial planning; citizen support for organization improves.

The model addresses three approaches the manager may choose to make general expenditure reductions. They include across-the-board reduction, specific program reduction and program policy merger and termination. These three approaches are included in varying degrees within each of the ten phases of policy responses. Typically, management will not respond to initial resource reductions because of a failure to recognize that income loss has occured or will persist. This is followed by minor across-the-board reductions accomplished through attrition, hiring and construction freezes and the like. As the retrenchment persists, deeper across-the-board reductions are taken and these are supplemented with initial specific program reductions. Management responds to further reductions by continuing across-the-board cuts, taking deeper specific program reductions, merging activities, and making actual program terminations.

The following section categorizes actual DON reductions in terms of Jones's ten policy responses. The purpose of this categorization is to

assess at what phase the DON budget policy reduction decisions in FY 1990-91 intersect Jones categories of policy reductions.

Phase 2 Reductions:

-Rescissions:

Weapons Procurement, Navy,	1990/1992
Ram	$88,205,000
Other Procurement, Navy,	1989/1991
TSEC/KYV-5	$ 9,400,000
Other Procurement, Navy,	1990/1992
CARTS & CADS	$ 1,700,000
Spares and Repair	$ 4,000,000
Procurement, Marine Corps	1989/1991
Dragon	$ 7,000,000
Procurement, Marine Corps	1990/1992
M-1 Tank	$62,300,000

-Increase CHAMPUS deductible.
Is an attempt by Congress to increase revenues in support of the program.

Phase 4 Reductions

-The Senate made reductions to the Navy's request for industrial/depot maintenance equipment for FY 91 due to significant amounts of unobligated balances, automated data processing (ADP) request which have not been reviewed for compliance with DOD life cycle management principles and the deferral of modernization projects scheduled at bases being reviewed for closure.

-House recommended reductions for commissary operations were based on disapproving increased shelf stock time, disapproving expanding operating hours, and including savings generated by the civilian personnel freeze.

-The conferees agree to provide $1,131,953,000 for procurement of spare parts. The conference agreement is a reduction of $156,589,000 from the budget request and includes FA-18, CH-53, A-12 reductions commensurate with aircraft quantity reductions.

In aircraft procurement limited quantity reductions were taken by all airframes. Across-the-board reductions were also recorded in the spare parts account.

-The budget provides for the procurement of no passenger vehicles for the DON instead of 671 as proposed by the House and 646 proposed by the Senate.

Phase 4 to 5 Transition Reductions:

-Declining Navy end strength has led to a reduction of $123,000,000 in FY 91 to Training, Medical and Other General Personnel Activities.

It is anticipated that required personnel reductions in FY 1991 will be consummated through attrition, retirements and hiring freezes.

Phase 5 Reductions

-Reduction of $17,000,000 to F-14D and AV-8B programs due to termination of ASPJ.
Interviews conducted with NAVCOMPT officials indicated that a "hit-list" of programs for possible FY 1992 termination was being developed. In FY 1991 DOD budget submission 11 significant programs were proposed for termination. During Congressional review, funds were restored for Navy programs on this list. DON has not reached the point in the budget reduction continuum that coalitions can be built to support the termination of well placed programs.

-Conferees direct that Secretary of Navy decide between the Navy's Magic Lantern project and the Marine Corps' Airborne Mine Detection and Surveillance System.

Phase 5 to 6 Transition Reductions

-Congress ordered that facilities, activities and personnel levels at Memphis Naval Complex be maintained at FY 1984 levels.

This is attempt by Congress to mandate an element of equity in the distribution of budget reductions. Navy proposed this complex for termination and Congress was protecting it from deep cuts.

-Navy Stock Fund reduced by $10,850,000.

-slowed production of AMRAAM.

Phase 6 Reductions

-Marine Corps deactivation of ground combat elements of 8 rifle companies, 2 artillery battalions, 1.5 tank battalions, 3 truck companies, a recon company and 1 regimental headquarters, 2 F/A 18 squadrons and a Hawk battalion.

-termination of P-7 ASW aircraft.

-termination of 16" gun ammo.

-termination of DON's T-45 Training Simulator.

Phase 7 Reductions

-Cut in the total number of Tomahawk to be bought through FY 1994. Instead of buying 400 missiles per year from FY 1991 through 1994, the Navy is to get 600 per year through FY 1992. The net loss was 400 Tomahawks, and the program total is to be 3,060 missiles.

This is an attempt by DON to implement long-term strategic planning and integrate program and financial strategies.

The above analysis indicates that the Navy has progressed in it's fiscal restraint responses to a point of transistion between the fifth and sixth phase of budget reduction recognition. The FY 1991 budget includes continued across-the-board cuts that will force layoffs. Individual program reductions continue and include the Tomahawk missile, B-2 bomber and the A-12 attack aircraft. Hit lists of programs earmarked for termination were proposed by DOD and some were included in the President's FY 1991 budget request. Many of these programs such as the V-22 and Sea Lance missile were restored by Congress. The inability to terminate these programs is a clear indication that, though DOD has begun to make budget decisions based on phase six recognition, Congress continues to make phase five policy responses. The Jones model indicates that as the need for retrenchment continues, the transitional reductions taken so far are likely to be followed by cuts more consistent with phase six. For FY 1992 and beyond actual progam terminations will be increasingly employed as a policy approach.

3. Application of the Behn Model of Cutback Budgeting

In his work on cutback budgeting, Robert D. Behn, describes budgeting during retrenchment as fundamentally different from budgeting during times of growth. The fundamental differences are as follows:

INCREMENTAL GROWTH PROCESS:

- decentralized process, doesn't require central control or intervention.
- fragmented decision making allowed at lowest possible level.
- focus on the increment rather than the base.
- involves negotiation and accommodation, generally not requiring coercion.
- appears distributive, doesn't require anyone to give anything up, only to receive the increment.
- gives without trying to take, all benefit, none must sacrifice.
- largely invisible process, doesn't generate general interest.

- historical, annual, repetitive and predictive.
- stable coalitions, participants benefit from the distribution of the imcrement.
- rewarding: credit to be shared for those who bring increases home to their constituents.

DECREMENTAL REDUCTION PROCESS:

- centralized process.
- budgeting through comprehensive packages.
- reductions must come from the base, therefore requiring a reexamination of the entire budget.
- budgeting is chaotic and conflict-laden.
- usually involves confrontation and may require coercion.
- redistributive.
- some organizations must absorb cuts if others are to maintain the status quo or receive increases.
- provokes generalized interest, all stakeholders have a vested interest in the outcome of decrement distribution.
- multi-year, erratic, unpredictable and precedent breaking.
- budgeting is painful with only blame to share.
- unstable coalition requiring active leadership.

Behn indicates that these differences suggest several elements of a budgeting strategy for use in a cutback environment.

- centralize the budget process under strong leadership.
- devise a comprehensive budget package and devise incentives and procedures to hold together unstable coalitions in support of this package.
- be prepared to accept and cope with chaos, mistrust and public conflict.
- because decremental budgeting is not routine, be prepared to intensify the analysis of the specific situation.

The Behn model has been predictive of DOD/DON budgeting under retrenchment. The process has been fast paced, internally divisive and at

times, somewhat confusing. Changes in budget estimates occur rapidly as the assumptions about the economy, deficit and strategic threat evolve. Rivalry for limited resources, within and between the individual services compete with increased intensity to garner their share. Cutback management has required increasingly sophisticated analysis in order to more ably support budget requests. The rapid pace of change requires claimants to quickly gather information from subordinate commands in order to respond to repeated budget calls based on different outlay assumptions. The process has become more centralized in the hands of the budgeteers and a small number of analysts. Claimants for resources also have similarly consolidated control over subordinate activity budgeting in order to present a more unassailable and consistent budget request. The incremental budget process of buiding requirements from the bottom up to develop a total budget has been modified severely, although the motions are still performed. In the current climate, budget restraints are imposed from above to form the basis for budget decisions. The FY 1991 budget was only consummated after a coalition was put together under strong congressional leadership and a budget package was prepared that included adequate incentives to keep the coalition from pulling apart.

The PPBS structure has remained largely unchanged during retrenchment. However, both planning and programming have become disconnected from budgeting. It takes years for planning and programming decisions to become refined into the detailed program refl ed in the POM. In the current environment, congressional or DOD decisions have made significant deletions or additions that render obsolete the entire chain of previous PPBS decisions required to create the program. The actions taken by Congress and DOD reflect their current assessment of DOD budget and program needs in the light of available resources and political situation. The disconnect between POM and budget occurs because of the different assumptions embodied in each. The POM reflects assumptions which may be dated, given the rate of change in the political and economic environment,

while the budgeting process is impacted almost immediately by externally imposed conditions and decisions. Because the Budget process reflects the most recent and authoritative decisions, control of the PPBS process has consolidated in the Comptoller organizations. Planning and Programming have become a function of the budget to a great extent as decisions are made during the terminus of the budgeting phase and are pushed back down through the system.

The growing variation between the President's proposed strategic/conventional mix and the mix enacted by Congress is a further indication that the current vision of the congressional leadership is at odds with the doctrine implicit in the DOD budget request. DOD doctrine is based on planning and programming decisions that have evolved over a number of years.

Decision centralization is further evidenced in the DMR and defense acquisition initiatives. The DMR seeks to consolidate many DOD administrative activities that are currently performed by the individual services. These functions would now be performed as DOD activities under direction of OSD. Acquisition initiatives have sought to place greater control in the hands of OSD. The continued trend toward OSD acquisition will greatly centralize decisions relative to what systems will be procured by the MILDEPS.

F. CONLUSION

Conclusions drawn from the analysis of the data presented in Chapters II and III are presented in Chapter IV. The data are evaluated to provide an understanding of trends in total DOD/DON funding and trends among the appropriation types. Information is presented that shows the relative change in the mix of strategic and conventional programs. Finally, conclusions are presented regarding changes in the budget process and the usefulness of two theoretical models in evaluating Navy cutback budgeting.

IV. CONCLUSIONS ON BUDGET REDUCTION IN THE DOD/DON

A. PURPOSE OF THE THESIS

The purpose of this research is to analyze and document Navy budget and program reductions made in FY 1990 for FY 1991 and beyond. The thesis examined budget and program data, performed statistical analysis, and evaluated the results. Current budget and program reductions with respect to force structure, manpower, and all appropriation accounts were analyzed to assess their impact on the Navy. The analysis covered changes in all DON budget accounts and involved collection of information from the DON Office of Budgets and Reports, the OSD Office of the Comptroller, DOD/DON libraries, and interviews with a variety of sources. Analysis of Navy budget proposals and program data included statistical analysis of trends and preparation of a variety of exhibits to explain the results. To more fully interpret the Navy budget process, the budget reduction process compared two models of cutback budgeting developed by Jones and Behn. This chapter discusses conclusions drawn from the analysis. Finally, this section presents recommendations for future research.

B. CONCLUSIONS

Through FY 1991 the budget reductions taken by DOD/DON have largely been across-the-board/horizontal ad hoc decrements taken at the margin. Program terminations have been almost non-existent. Acquisition programs have been sustained through stretch-outs and reduced annual buys. Military and civilian personnel reductions have been accomplished through attrition, retirement, early-out programs and civilian hiring freezes. No lay-offs or involuntary reductions in force have been required.

Operating account reductions have been taken across-the- board corresponding to moderate decremental changes to force structure. At present, FY 1991 budget allocations have not been distributed to the

operating commands. However, requirements for Operation Desert Shield already have resulted in spending that exceeds FY 1991 appropriation levels. This contingency spending has rendered moot the allocation of the DOD O&M appropriation made earlier in 1990. While a supplemental appropriation to fund Desert Shield is anticipated, how it will be received by Congress and distributed to the MILPERS is problematic. The net result is that the top-line in O&M spending targets for full year FY 1990 have not been established.

Research and Development funding has not been significantly reduced. However, congressional review left an indelible mark on the RDT&E account, allocating these resources to reflect constituent interests.

The impact of budget reduction already has had repercussions on the defense industrial base. Dwindling DOD contracts have forced many second and third tier subcontractors, unable to compete with large procurement firms and to search for work outside the government. If defense industry and its technology are neglected, the resulting erosion in domestic defense production capability will reduce the ability of the services to sustain military operations.

Budget reductions also have caused dramatic changes in the procurement process. Reductions have caused the DOD hierarcy to implement management improvements (e.g. DMR) as a means for accommodating budget reductions. Elements of these management initiatives are reminiscent of measures proposed since the McNamara era. The head-long rush into streamlining and consolidation may have unforseen consequences and costs that have not been fully assessed.

Competition for resources has caused dissension both within and among the MILPERS and services. The turf fights between the MILDEPS and the services has dissolved any appearence of DOD solidarity in the face of budget cuts. Interservice "poaching", including end-runs to Congress and media appear to have affected the ability of DOD to pursue policy in one direction, further erroding DOD's creditability with the Congress.

The DOD budget structure has so far remained largely unchanged in response to retrenchment. However, decisionmaking has become more centralized in the hands of the comptrollers as the inability or unwillingness of planning and programming activities to keep up with rapid fire changes has become manifest. This has led to a budget process that is no longer needs based and pushed from the bottom up, to one that is constraint driven and forced down through the system. PPBS has proven itself inflexible and somewhat unresponsive to fast paced change. As a result of the laborious and lengthy nature of the planning and programming process, decisions made early on may not reflect real world constraints at budgeting time. Congressional scrutiny remains intense and detailed. The resulting authorization and appropriation legislation reflects the congressional agenda and presents DOD with large programmatic and funding changes. The FY 1991 congreeional budget review was more centrally managed than during preceeding years. Congressional leaders were involved in building a coalition of members to get the appropriation legislation passed. In the end there was an appearance strong leadership bringing the other members into line.

The Jones and Behn theoretical models of cutback budgeting are useful evaluating DOD/DON responses to an environment of diminishing resources. The analysis of DOD/DON budget reductions using the Jones paradigm indicates that the budget process is transitioning from response based on relaxed and chronic scarcity to one based on chronic to short-term acute scarcity. Current policy responses include continued across-the-board reductions and the beginning of specific program reductions. The inability to terminate specific programs and the avoidance of forced personnel reductions indicate that the transition to phase six, Acute Scarcity, is not complete.

Both the Jones and Behn model has correctly predict the centralization of de-facto budget making authority. The Behn model also anticipated that cutback budget making would require a comprehensive budget package in

order to develop a coalition of supporters adequate for the enactment of legislation. The FY 1991 DOD appropriation was the result of a budget summit that eventually produced a single take-it or leave-it package at the end of October 1990 that was finaly supported by congressional leadership and the Administration. It involved the creation of a fragile and transitory coalition as Behn predicted.

The Jones and Behn models suggest that future budgeting will require more conprehensive evaluation and resource/program planning. In the face of diminishing resources, DOD/DON must seize upon an over-arching issue in order to persevere in the budget battle according to Behn. The Jones model also refers to the need for greater attention to the organization's service market. The dissolution of the Soviet threat has challenged DOD strategic and conventional warfare planning and has left the Department without a single over-arching threat issue. Both models suggest that the Department needs to look at limiting force structure and defining which programs are needed to support short and long-range national security objectives. The Behn model also suggests the need to address basic force structure questions to find the answers to the number of ships and aircraft to be procured in the next decade. These requirements must be built around a consistent and politically supportable vision of DOD and military service mission.

C. RECOMMENDATIONS FOR FUTURE RESEARCH

In the conduct of this research a number areas to be investigated further were identified. This final section outlines a number areas suitable for future research.

1. Cyclic DOD procurement has driven many defense contractors out of the business of producing military hardware. The industrial base has eroded and it is alleged that many critical items are no longer domestically produced. Further research, beyond the scope of this thesis, is required to determine the extent of this erosion and to pinpoint specific weaknesses.

2. The Defense Management Review has been the basis for the implementation of initiatives to stretch financial resources through improved management efficiency. Now that many of these initiatives have been implemented, additional research would be useful to measure actual savings against planned savings and to evaluate unanticipated ramifications and costs.

3. At this point in DOD retrenchment, very few programs have been terminated: Research to develop a better understanding about the nature of programs actually terminated during this and pervious retrenchments might provide valuable insight on how to better protect programs from termination.

LIST OF REFERENCES

1.Patricia A. Gilmartin, "Defense Research Budget to escape Deep reductions," Aviation Week & Space Technology March 1990 : 59-61.

2.Aaron Wildavsky, The New Politics of the Budgetary Process (Glenview, Ill.: Scott, Foresman, 1988), p. 366.

3.Wildavsky, p. 259.

4.Wildavsky, p. 385.

5.White Paper on DOD and Congress, October 1989, p. 1.

6.White Paper on DOD and Congress, October 1989, p. 7.

7.Wildavsky, p. 237.

8.Wildavsky, p. 238.

9.Wildavsky, p. 243.

10.Wildavsky, p. 395.

11.L. R. Jones, "Phases of Recognition and Management of Financial Crisis in Public Organizations," Canadian Journal of Public Administration, vol. 27, no.3 August 31, 1983: 47.

12.Richard Cheney, "Statement of the Secretary of Defense Before the House Budget Committee in Connection with the FY 1991 Budget for the Department of Defense," February 7, 1990: 1-15.

13.Richard Cheney, "Cut the Budget but Mind the Risk," Defense 90 March\April 1990: 3.

14.Amos A. Jordon, William J. Taylor, and Lawrence J Korb, American National Security (Baltimore & London: The Johns Hopkins University Press, 1988) 553.

15.Jordon, Taylor, and Korb, p. 554.

16.Charles Lane, "The High Cost of Giving" Newsweek September 17, 1990: 31.

17.Lane, p. 31.

18.Lane, p. 32.

19.Lane, p. 32.

20.Jacques S. Gansler, Affording Defense. Cambridge Mass: MIT Press, 1989.

21.John D. Morrocco, "Defense Cuts May Force Trade-Offs Between New Systems and Upgrades" Aviation Week & Space Technology December 4, 1989: 22.

22.Morrocco, p. 22.

23."Practical Comptrollership," Naval Postgraduate School, Monterey Ca. p. 84.

24.Jordon, Taylor and Korb, p. 289.

25.Wildavsky, p. 134.

26.Wildavsky, p. 134.

27.Wildavsky, p. 143.

28.Wildavsky, p. 380.

29.Gerald M. Pomper, "The Presidential Election", The Elections of 1980: Reports and Interpretations (Chatham, N. J.: Chatham House, 1981), pp. 87-88.

30.Wildavsky, p. 366.

31.Joshua M. Epstein, The 1988 Defense Budget. The Brookings Institution, Washington D.C., 1987.

32.Rudolph G. Penner and Alan J. Abramson, Broken Purse Strings. University Press of America, Lanham, Maryland, 1988.

33.Wildavsky, p. 237.

34.Penner and Abramson, p. 70.

35.Epstein, p. 1.

36.National Defense Budget Estimates for FY 1986, (DOD 1985), pp85-86.

37.Epstein, p. 18.

38.Defense, p. 3.

39.Defense 90, p. 3.

40.Defense 90, p. 3.

41.Defense 90, p. 5.

42."Making Appropriations for the Department of Defense," p. 96.

43."Making Appropriations in the Department of Defense," p. 96.

44.John Morroco, "Navy Avoids Major Program Cuts, Faces Modest Force Reductions," Aviation Week & Space Technology Feb 12, 1990: 123.

45.Morrocco, p. 123.

46.Morrocco, p. 123.

47."Highlights of the FY 1991 Department of the Navy Budget," Department of the United States Navy January 1990: p. 12.

48."Highlights of the FY 1990 Department of the Navy Budget," Department of the United States Navy January 1990: p. 12.

49.Morrocco, p. 123.

50.Making Appropriations for the Department of Defense, 101st Congress 2nd Session. October 24, 1990.

51.Defense p. 7.

52.Simon, Herbert A. Administrative Behavior 2nd. ed. Englewood Cliffs, NJ.: Free Press 1957.

53.Department of the Navy Budget Guidance Manual, 1990

54.Jones, L.R. Personal interview. Naval Postgraduate School, 25 November, 1990. Williamson, R.L. and Workman, J.C.

55.Navy Uses Space to Spot Stealth Fighter, Military Space News, April 23, 1990: 1.

56.Wildavsky, p. 233.

57.Robert E Foelber, A Defense Budget Primer. Washington, D.C., Congressional Research Service, The Library of Congress, May 1988, p. 43.

58.White Paper, p. 21

59."News Release, Office of Assistant Secretary of Defense," Washington D. C. January 29, 1990: 1.

60.Grier, P. "Waiting for the Axe to Fall," Government Executive January 1990: 49.

61.Cain, S.A., "Strategic Nuclear Forces: Unrealistic Planning," Public Budgeting and Finance Winter 1989: 95.

62.Thomas, p. 27.

63.Jones, Personal Interview.

64.Patricia A. Gilmartin, "The Gloves Are Off In Lobbying For Defense Programs." Aviation Week & Space Technology April 1990: 14.

65."Military Aircraft Programs Gain Momentum in the 90's." Aviation Week and Space Technology July 23, 1990: 19.

66."Military Aircraft Programs Gain Momentum in the 90's." Aviation Week and Space Technology July 23, 1990: 22.

67."Navy Considers Delaying Deployment, Production of Carrier Based Aircraft," Aviation Week and Space Technology March 26, 1990: 20.

68."Navy Considers Delaying Deployment, Production of Carrier Based Aircraft," Aviation Week and Space Technology March 26, 1990: 20.

69.Miguel A Qtequi, "Budget Instability, Politics, Economics, and Inefficiency," Program Manger 1990: 3.

70.Otequi, p. 4.

71.Otequi, p. 4.

72."the DMR at Work Toward Six Broad Goals," Defense 90 MArch\April 1990: 8.

73.Defense 90, p. 11.

74.Defense 90, p. 11.

75.Defense 90, p. 10.

76.Fred L. Alder, "Acquisition Streamlining: Progress and Challenges," Logistics Management Institute April 1988: 1-3.

77.Adler, p. 1-3.

78."Congress Wary of Pentagon Plan to Suspend Rules on Acquisition," Aviation Week & Space Technology May 28 1990: 24.

79.Congress Wary of Pentagon Plan to Suspend Rules on Acquisition, p. 25.

80.Congress Wary of Pentagon Plan to Suspend Rules on Acquisition, p. 24.

81."Military Aircraft Upgrade Programs Gain Momentum in the 90's," Aviation Week & Space Technology July 23, 1990: 22.

82.David Bond, "LH Team Wary of Pentagon," Aviation Week and Space Technology June 18, 1990: 23.

83.Bond, p. 23.

84.Bond, p. 23.

85.Bond, p. 24.

86.J. Ronald Fox, The Defense Management Challenge (Boston: Harvard Business School Press, 1988) 29.

87.Morrocco, p. 19.

88.Fox, p. 40.

89.James Kitfield, "Stepping Back from Reform," Government Executive August 1990: 18.

90.Kitfield, p. 18.

91.Mark L. Goldstein, "The Biggest Buyers," Government Executive August 1990: 8.

92.Goldstein, p. 19.

93.Kitfield, p. 8.

94.Morrocco, p. 18.

95.Patricia A. Gilmarin, "Falcon 21 Seen As ATF Challenger," Aviation Week and Space Technology April 9, 1990: 16.

96.Tony Velocci, "Military Aircraft Upgrade Programs Gain Momentum in the 90's," Aviation Week and Space Technology July 23, 1990: 5.

97.David F. Bond, "Navy Considers Delaying Deployment, Production of Carrier-Based Aircraft, "Aviation Week & Space Technology March 26, 1990: 20.

98.Bond, p. 20.

99.Bond, p. 20.

100.Bond, p. 21.

101.Bond, p. 21.

102.Bond, p. 21.

103."Impediments to Reducing the Costs of Weapon Systems," Comptroller General of the United States November 8, 1979: 5-24.

104.Morrocco, p. 19.

105.Bond, p. 23.

106.Williams, Lecture, Naval Postgraduate School, November 17, 1990.

107.Jones, p. 52.

108.Jones, pp. 48-65.