BY THE COMPTROLLER GENERAL

Report To The Congress

OF THE UNITED STATES

Defense Budget Increases: How Well Are They Planned And Spent?

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- Follow through on his pledge to improve stability in the weapon systems acquisition process by eliminating marginal programs to fund higher priority programs at more economic levels of production.
- Monitor programs receiving large funding increases to ensure that additional funding can be spent prudently.
- Report to the Congress what he was able to accomplish with the funds and what remains to be done.

PLRD-82-62
APRIL 13, 1982

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APRIL 13, 1982

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

B-206768

To the President of the Senate and the
Speaker of the House of Representatives

This report analyzes how well the Defense Department has managed the increases in obligational authority it has received since FY 1980. We found that the Defense Department has generally applied the funding where it had identified the most pressing needs. However, we also believe the Defense Department should institute some procedures which would enhance its ability to manage more effectively.

We discussed our observations with Defense officials and their comments were incorporated where appropriate.

We are sending copies of this report to the Director, Office of Management and Budget; and to the Secretary of Defense.

Charles A. Bowsher

Comptroller General
of the United States

DEFENSE BUDGET INCREASES: HOW WELL ARE THEY PLANNED AND SPENT?

EXECUTIVE SUMMARY

This report discusses the $72 billion Defense budget increases in fiscal years 1981 and 1982, a 50 percent increase over the 1980 budget year, and attempts to show how the Department of Defense (DOD) planned to use these funds and how they were spent. Our review included discussions of the major defense problems and funding priorities with senior DOD officials, identification of the major increases in each of the appropriation accounts and, on a selected basis, testing to determine whether:

--The funds were being applied as outlined by Defense officials.

--The funds were used prudently.

--The funds solved the perceived problems.

--The Congress, DOD, and the Services had sufficient visibility and accountability over the expenditures.

The increased funding was distributed to various accounts. However, the major emphasis was in the investment accounts, operations and maintenance, and personnel as follows:

Account	Amount	Major programs funded
Procurement	$30.1 billion	Weapons, ships, spare parts, etc.
Operations and Maintenance	$15.5 billion	Training, base operations, depot maintenance
Military Personnel	$15.9 billion	Military personnel, retired pay, and legislated pay increases

Our findings indicate that DOD generally followed through on its pledge to emphasize readiness and sustainability, and to invest heavily in force modernization. It also increased military pay to recruit and retain critical skills and increased funding to the real property maintenance accounts to not only improve readiness but also the quality of life for military personnel. However, we found that the administration had only limited success in eliminating marginal weapons programs to fund higher priority programs at more efficient production rates. We also found that increases in operations and maintenance funds could

have been spent more prudently; and, that more needs to be done to define the objectives for using these funds. There is also a need for top managers in DOD to maintain visibility over how the funds are used.

In the personnel area, DOD is using an across-the-board compensation approach to resolving skill shortage problems rather than managing skill categories individually and tailoring pay and benefit packages to attract and keep sufficient people. Finally, the Department of Defense needs to add an accountability system or "feedback" loop to its Planning, Programing, and Budgeting System that would adequately inform top DOD officials and the Congress on the progress made on major programs and projects. Our findings indicate the major problem areas are:

--Providing More Program Stability--The administration identified a number of critical problems affecting program stability and announced 32 management initiatives aimed at improving the efficiency of the acquisition process. It also pledged to reduce weapons programs in order to fund higher priority programs at more efficient production rates, thereby reducing unit costs, and avoiding program stretchouts. In our review we found that only a few programs were actually cut in the fiscal 1982 procurement and research budgets. Most of these cuts--such as the reactivation of the ORISKANY aircraft carrier--had already been recommended by the Congress, therefore DOD primarily acted on expected congressional actions.

  It should be realized that our review was performed during the early stages of the Defense Program Initiatives implementation, and we would hope that DOD follows through with its pledge of cutting marginal programs to provide the necessary stability on the higher priority ones in its current budget process. The problem is simply one of too many programs for the available funding. Therefore stretchouts are still occurring with concomitant increased unit prices. (See ch. 2.)

--Adding to Weapons Systems Support--Sticking to their commitment, the administration added $4.3 billion for spares and repair parts to support weapon systems. Recent GAO reports have concluded that DOD's systems for determining requirements for spares overstate needs. In addition, better supply discipline could eliminate some of the problems currently being experienced. We found similar problems with regard to DOD's request for funds to purchase conventional ammunition and recommended a number of reductions to the fiscal year 1982 request for funding. (See ch. 2)

--Using the Funds Prudently--DOD substantially increased the funding for the Operations and Maintenance accounts for such programs as the Joint Chiefs of Staff exercises and depot maintenance for overhaul of major weapons, components, and spares. The purpose in the first instance was to increase training and, in the second, to return equipment in need of repair to the forces. It was thought that substantial increases to the two programs could be a "quick fix" to enhance readiness.

- The Air Force, however, could not absorb all of the JCS exercise money and deserves credit for turning back $79.4 million to Congress.

- The depot maintenance programs absorbed $3.1 billion in increased funding; but, it was costly and only partially impacted on readiness. At one naval air rework facility, the efficiency of the work force dropped approximately 15 percent.

Both programs illustrate the problems of absorbing substantial increases in the short term and assuring that these funds are used efficiently with concomitant readiness improvements. (See ch. 3.)

--Defining Objectives for Use of Funds--Substantial funding increases were directed to real property maintenance to enhance readiness and also to improve quality of life for military personnel. While our review of these projects was limited, we observed some projects which raised questions as to whether there is sufficient guidance to command and lower echelon levels on the types of property maintenance projects that should be targeted to meet the readiness and quality of life goals enunciated by the Secretary of Defense. Our examination showed that all types of projects were funded, not necessarily in order of priority and directly related to readiness issues.

- For example, at one location funds were used to buy and insert metal, simulated redwood slats in chain link fencing ($50,000), and

- build a new gate house, visitor center and parking area at a cost of $150,000. (See ch. 3)

--Maintaining Program Visibility--Operations and Maintenance accounts are distributed from Service Headquarters to major commands and then to the base levels. At each level there is considerable discretion to shift funds from one program to another (e.g., mission to real property maintenance) to respond to unexpected needs, such as the Indian Ocean deployment, strengthening the RDF, or other contingencies. Commands need to have some flexibility. However, the Department of Defense does not adequately monitor and assure that the O&M funds appropriated by the Congress are used for the specified purposes.

- An example is the program developed by the Army to finance the support of new equipments issued from production to the forces. This program has grown from $27 million in fiscal year 1980 to $938 million in fiscal year 1982. We found a major redirecting of these funds occurred at subordinate commands in Europe in fiscal year 1981 because neither Headquarters, Army, nor the U.S. Army, Europe monitored how the funds were spent. (See ch. 4.)

--Obligating Funds Received Late Presents Problems--We also noted that the Services had problems in absorbing and obligating funds received late in the fiscal year for mission-related items such as fuel and spare parts, exercises, depot and real property maintenance.

- The Army in Europe, for example, reprogramed $47 million earmarked for mission items to real property maintenance projects and bachelor housing furnishings. (See ch. 4.)

--Overcoming Military Skill Imbalance Problems--In order to improve civilian/military pay comparability and deal with the military services recruiting and retention problems, the Defense Department requested and received from the Congress substantial increases in military pay and allowances. Despite the fact that all the Services are essentially 100 percent staffed with some 2.1 million active duty military personnel, the Services continue to complain about shortages of experienced personnel possessing certain critical and technical skills.

- For example, at the end of fiscal year 1981, the Air Force had only 76 percent of its Bomb-Navigator Systems Mechanics, the Navy 83 percent of its Boiler Technicians, and the Army 55 percent of its Electronic Warfare Intercept Systems Repairmen. The Air Force is also short of flight-generating skills for avionics, aircraft maintenance, electronics and communications; the Navy is short of nuclear technicians, operation specialists, and electronic technicians; and, the Army is experiencing shortages in air traffic controllers and certain mechanics.

Part of the problem is DOD's across-the-board approach to resolving staffing problems rather than managing skill categories individually and tailoring pay and benefit packages to attract and keep sufficient people to perform critical jobs. (See ch. 5.)

--Accountability Over Program Execution--The Department of Defense does not have an accountability system or "feedback" loop that would adequately inform top DOD officials and the Congress on the progress made on major programs or projects such as training exercises, depot workloads, and specific programs such as the Army's program for fielding new weapons. All these programs were funded to certain levels by the Congress based on specific goals for improving combat capability. It is important that the accountability system not only track to see that monies are directed to the critical programs and areas, but also that major goals and levels in the budget justification are accomplished or reasons are given for not sustantially completing projected schedules. (See ch. 6.)

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Although this listing of major problems is certainly cause for concern, there is no reason why the Department of Defense cannot deal effectively with the issues described. Some of the problems may be overcome in time as new initiatives being implemented by the administration begin showing results.

The following is a summary of the more significant recommendations that we believe the Secretary of Defense should consider in an effort to better plan and spend defense dollars:

--Cut Additional Low Priority Programs--Programs are still underfunded, costs are increasing, and modernization is being delayed. To procure these systems at more efficient rates would require that DOD follow through so that higher priority programs can be funded

at more efficient production rates, thereby achieving the program stability it deems essential for an orderly acquisition process. (See ch 2.)

--Allocating Funding Increases to Improve Readiness--The Department of Defense lacks a well-planned strategy and priority system for applying increased funding to Operations and Maintenance Programs. As a result, funds have been applied to some programs in excess of what they could absorb efficiently and efffectively. In the depot maintenance programs, categories of equipment should be identified and prioritized according to their contribution to readiness and sustainability. We believe that DOD should monitor programs receiving large increases to ensure that additional funding can be absorbed efficiently. (See ch. 3)

--Directing the Use of the Money--More specific guidance is needed for funding real property maintenance projects to ensure that additional funds not required for the more urgent and obviously top priority projects are spent prudently on readiness and quality of life projects. We believe that the Secretary of Defense should direct the military services to develop guidance and criteria for funding real property maintenance projects that contribute directly to readiness and quality of life. (See ch. 3)

--Increasing Management by Skill Programs--We believe that each critical skill category should be managed individually and pay and benefit packages tailored to attract and keep sufficient people to perform critical jobs. The Congress may want to have DOD begin developing comprehensive management-by-skill programs that would provide the Services with more flexibility in dealing with skill imbalances in selected areas. (See ch. 5.)

--Developing Better Accountability Over Program Execution--We believe that the Secretary of Defense should monitor the use of Operations and Maintenance funds to assure they are applied in the programs intended and that approval for major shifts of funds above an established threshold be justified. The Defense planning, programing, and budgeting system should be able to identify to the Secretary of Defense and the Congress what has been accomplished to date with the increased funding for any major program or specific appropriation, and what remains to be done. (See ch. 4 and 6.)

Several important overall budgetary matters have emerged from our review:

--Congressional Budget Approval--Congress can significantly improve DOD's execution of the budgeted funds by timely approval of budgets. Delays and continuing resolutions exacerbate what already is a most complex system. Congress should also closely scrutinize supplementals and amendments that are requested late in the year, since many programs cannot efficiently absorb large amounts late in the year. We suggest DOD be required to show potential impacts on programs with requests for funds that are presented late in the budget year. (See ch. 7.)

--Defining the Services' Specific Mission Responsibilities--This is an area that GAO intends to devote considerable attention to in the next few years. It is important because it is our very strong impression even now as a result of this review, that the Department of Defense needs to do more to define the specific service missions needed to respond to the threat assessment prepared by the JCS. Under current procedures, each Service is building its own program and budget based on how they define their needs. It is not possible at this point in time to determine how much overlap there is between Service missions and how much this may be costing. (See ch. 7.)

--Accumulating Costs by Missions--In conjunction with the prior observations we believe the Congress and the Secretary of Defense need better cost accounting by major missions. Such data would be essential in determining (1) whether sufficient funds are being directed to the critical missions and (2) how much these missions are really costing. This would allow managers to make the necessary trade-off decisions. As in the prior observation, GAO intends to emphasize this area in the next few years and focus on the pros and cons of full mission costing and other available alternatives. (See ch. 7.)

AGENCY COMMENTS

We discussed our observations with officials from the Comptroller and the Review and Oversight Offices, Department of Defense. As a result of these meetings we held additional discussions with Army, Navy, and Air Force headquarters officials. We have also circulated the draft report to officials within the Defense Comptroller's office and Financial Management offices in the Army, Navy, and Air Force. Matters contained in the report were discussed with these officials and their comments were incorporated where appropriate.

Contents

ABBREVIATIONS

DOD	Department of Defense
FYDP	Five Year Defense Program
GAO	General Accounting Office
O&M	Operations and Maintenance
OMB	Office of Management and Budget
PPBS	Planning, Programing, and Budgeting System
RDT&E	Research, Development, Test, and Evaluation
USAREUR	U.S. Army, Europe

CHAPTER 1

OVERVIEW

Between fiscal years 1980 and 1982, the defense budget increased by approximately $72 billion in total obligational authority--from $142 billion to $214 billion (including the proposed 1982 supplement). This is approximately a 50-percent increase over a 2-year period. As the table below indicates, a substantial portion of the total increase can be attributed to actions initiated during the Carter administration. In many respects, the Reagan administration's add-ons to the fiscal years 1981 and 1982 budgets merely endorsed what the previous administration had already planned.

	Total obligational authority			
Administration	FY 1980	FY 1981	FY 1982	Increase from 1980 to 1982
	(billions)			
Carter (Jan. 1981)	$142.2	$171.2	$196.4	$54.2
Reagan (Mar. 1981)	-	178.0	222.2	80.0
(Jan. 1982)	-	176.1	214.2	72.0

WHERE ARE THE INCREASES GOING?

The final fiscal year 1981 defense budget of $176 billion represented a $34 billion increase over the previous year. As the following table shows, the four major appropriation titles--Military Personnel, Operations and Maintenance, Procurement, and Research, Development, Test, and Evaluation (RDT&E) accounted for $30 billion, or almost 87 percent, of that increase. The fiscal year 1982 defense budget (including the proposed supplemental) added another $38 billion, and the same four accounts received approximately $30 billion, or 78 percent, of the increase.

Appropriation	FY 1981	Increase from 1980 to 1981	FY 1982	Increase from 1981 to 1982	Increase from 1980 to 1982
	(billions)				
Military Personnel	$ 36.7	$ 5.6	$ 38.5	$ 1.8	$ 7.4
Retired Pay	13.7	1.8	15.0	1.3	3.1
Operations and Maintenance	55.2	8.6	62.1	6.9	15.5
Procurement	47.8	12.5	65.4	17.6	30.1
RDT&E	16.6	3.1	20.0	3.4	6.5
Military Construction	3.4	1.1	5.1	1.7	2.8
Family Housing	2.0	.5	2.3	.3	.8
Revolving and Management Funds	.5	.5	.5	-	.5
Defense-wide Contingencies	-	-	5.4	5.4	5.4
Total (note a)	$176.1	$33.9	$214.2	$38.1	$72.0

a/Totals may not add due to rounding.

Over the 2 year period, the Procurement and Operations and Maintenance accounts combined have received approximately 63 percent of the total increase. Since most of the Defense-wide contingencies funding is for legislated pay increases, the personnel accounts have also increased markedly. From an appropriation account level, the funding increases appear to coincide with themes common to both the Carter and the Reagan administrations. More specifically, military pay was increased to make the services more attractive. Operations and Maintenance funds were increased to address readiness and sustainability concerns and Procurement funding was increased to hasten the overall modernization effort.

CARTER-REAGAN: A DIFFERENCE IN PERSPECTIVE

The Carter administration, as has already been shown, had proposed large increases in the defense budget for fiscal years 1981 and 1982. The administration was striving to limit the size of the deficit and, at the same time, meet social and military needs. In increasing the budget, the administration's approach was to place more emphasis on the Operations and Maintenance accounts to shore up readiness and less on the Procurement accounts to modernize the forces. The Reagan administration, while continuing the emphasis on increased readiness and sustainability, also increased the funding for force modernization in the fiscal year 1982 budget. The funding emphasis of the two administrations is depicted on the next page.

Appropriation	Total obligational authority	Increase over FY 1980			
			Reagan		
	FY 1982 with proposed supplement	Carter	Before supplement	With proposed supplement	Total growth
	(billions)				
Military Personnel	$ 38.5	$ 7.0	$ -	$ .4	$ 7.4
Retired Pay	15.0	4.2	(1.2)	.1	3.1
Operations and Maintenance	62.1	13.2	1.7	.6	15.5
Procurement	65.4	10.6	19.0	.5	30.1
RDT&E	20.0	5.7	.7	.1	6.5
Military Construction	5.1	3.2	(.6)	.2	2.8
Family Housing	2.3	.5	.1	.1	.8
Revolving and Management Funds	.5	-	.3	.2	.5
Defense-wide Contingencies	5.4	3.1	2.9	(.6)	5.4
Total (note a)	$214.2	$47.4	$23.2	$1.4	$72.0

a/Totals do not add due to rounding.

The Reagan administration viewed the principal shortcoming to the Defense budget it inherited as not so much a matter of omitting critical programs in order to adequately fund others, but rather a failure to provide sufficient funding for many programs it considered necessary. The administration proposed to correct this shortcoming in many of the programs by funding them at increased levels. At the same time, it pledged to request no more funds than it could spend efficiently.

INFLATION AND THE DEFENSE BUDGET

Defense estimates show that with inflation, the real growth since 1980 is approximately $42 billion.

The Defense budget can basically be considered in three groupings--personnel, support, and investment. As the following table suggests, the biggest growth since 1980 has been in the investment accounts. It also shows that increases in the pay area have kept pace with inflation.

Category	Growth from 1980 to 1982: Current dollars (note a)	FY 1982 dollars (note b)	Portion of increase attributable to inflation
	(billions)		
Military pay and related items (such as Family Housing)	$16.7	$ 1.9	$14.8
Support (Operations and Maintenance, Revolving and Management Funds)	16.0	7.8	8.2
Investment (Procurement, RDT&E, and Military Construction)	39.4	31.8	7.6
Total (note c)	$72.0	$41.5	$30.6

a/Dollar value at the time funds were appropriated.

b/ DOD composite rates used: for 1980-1 - 11.6%; for 1981-2 - 9.7%.

c/ Totals do not add due to rounding.

CONTROLLABILITY OF DEFENSE OUTLAYS

The magnitude of the increases to the Defense budget since fiscal year 1980 has raised concerns about the effect such increases will have on the economy and the ability of the industrial base to absorb them. The increases actually enter the economy once the Government begins paying its bills and therefore can be measured in terms of defense outlays.

For fiscal years 1980 to 1982, Defense outlays are expected to increase by approximately $50 billion--from $133 billion to $183 billion. The following table shows that the largest increases in Defense outlays are in the Operations and Maintenance account.

Account	Defense outlays FY 1980	Defense outlays FY 1982	Increase from 1980 to 1982	Increase in total obligational authority from 1980 to 1982
			(billions)	
Military Personnel	$ 30.8	$ 38.3	$ 7.5	$ 7.4
Retired Pay	11.9	15.0	3.1	3.1
Operations and Maintenance	44.8	60.6	15.8	15.5
Procurement	29.0	41.3	12.3	30.1
RDT&E	13.1	18.3	5.2	6.5
Military Construction	2.4	2.7	.3	2.8
Family Housing	1.7	2.1	.4	.8
Revolving and Management Funds	(.2)	-	(.2)	.5
Defense-wide Contingencies	-	5.1	5.1	5.4
Total (note a)	$133.5	$183.4	$49.5	$72.0

a/Totals may not add due to rounding.

The personnel related areas (Military Personnel, Retired Pay and Defense-wide contingencies) also had a substantial increase of approximately $15.7 billion over the 2 year period.

The table shows that increases in total obligational authority in the personnel and Operations and Maintenance area closely match the increases in outlays. This suggests that outlays in any 1 year can be most quickly reduced by reducing the personnel or Operations and Maintenance accounts. This is not true for the Procurement and Military Constructions accounts.

Outlays in any one year are composed of outlays against the new obligational authority for that year, plus outlays against previous years' obligational authority. In fiscal year 1981, approximately 28 percent of the total Defense outlays was against prior years' obligational authority, mostly procurement of weapon systems. In fiscal year 1982, the corresponding figure was 29 percent. For fiscal year 1983 the corresponding estimate is 31 percent. At the same time, Department of Defense (DOD) officials have stated that managing outlays can have only a very limited impact in reducing outlay expenditures. Under these conditions, the Congress and DOD may have less flexibility if either attempts to reduce outlays through future Defense budget decisions. The following table show these projected increases.

	Fiscal years							
	1980 (note a)	1981 (note a)	1982	1983	1984	1985	1986	1987
	(billions)							
Total obligational authority	$142.2	$176.1	$214.2	$258.0	$285.5	$331.7	$367.6	$400.8
Outlays	132.8	156.1	182.8	215.9	247.0	285.5	324.0	356.0

a/Actual.

THE CONGRESS AND THE DEFENSE BUDGET

The following table summarizes the congressional action on the fiscal years 1981 and 1982 Defense budget. The Congress increased the amended 1981 budget request by $4.1 billion and a year later decreased the Reagan administration's October revision for 1982 by $1.3 billion. The supplements for 1981 added $11.9 billion to the $4.1 billion the Congress had already added, as shown in the following table. The 1982 supplement for $2.3 billion has not been passed but, if approved, would partly offset the reductions made since the administration's October revisions to the Defense budget.

Summary of congressional action on Defense bills

FY 1981 budget:	Administration requested	Congress approved	Difference
	(billions)		
Carter:			
Jan. 1980	$158.7	$ -	$ -
Mar. 1980 amendemnt	161.0	165.1	4.1
Jan. 1981 supplement	6.3	-	-
Reagan:			
Mar. 1981 amended supplement	13.1	11.9	(1.2)
FY 1982 budget:			
Carter:			
Jan. 1981	196.4	-	-
Reagan:			
Mar. 1981	222.2	-	-
Oct. 1981 revision	214.1	212.8	(1.3)
Jan. 1982 supplement	2.3	(a)	(a)

a/No action taken as of April 16, 1982.

The 1981 defense budget

At the appropriation account level for fiscal year 1981, the net effect of the congressional increases to the amendment and the supplements has been to add approximately $16.0 billion, primarily in the Military Personnel, Operations and Maintenance, and Procurement accounts. This corresponded to the congressional interest in enhancing overall military capability.

The 1982 defense budget

President Carter initially proposed in January 1981 a fiscal year 1982 defense appropriation of approximately $196 billion. The Reagan administration quickly amended this budget and in March proposed increasing it to approximately $222 billion. In October the administration reduced its proposal to approximately $214 billion. The final appropriation approved by the Congress was for approximately $213 billion.

The House Committee on Appropriations recommendation was approximately $4 billion below the October request, and the Senate Committee on Appropriations recommendation exceeded the administration's.

For the authorization bills, the Congress approved bills which totaled approximately $0.4 billion more than the administration requested in October, as shown below.

Summary of congressional action on 1982 Defense requests

	Total obligational authority					
	Requests		Recommendations			
	Mar.	Oct.	House	Senate	Conference	Final
	(billions)					
Authorization bills	a/$143.4	$136.8	$142.9	$143.4	$137.3	$137.2
Appropriation bills	222.2	214.1	210.3	221.9	212.8	212.8

a/All appropriations do not go through authorization committees e.g., military personnel and retired pay; consequently, total authorizations for these years are lower than total appropriation request.

The table would seem to indicate that the authorization committees were basically in agreement with the Defense Department proposals. In fact, the administration's October revision was due, in part, to its reading of the programs and level of funding the authorization committees were most likely to approve. The House Committee on Armed Services had recommended reducing the overall authorization by $467 million while reducing the RDT&E authorization by approximately $1.1 billion. The Senate Committee on Armed Services added $68 million to the overall Defense authorization and reduced the RDT&E authorization by $210 million.

Before either Appropriations Committee issued its report, the administration announced its October revisions. Its proposed $8 billion reduction was in the following areas.

Account	Increase in total obligational authority ------(billions)------
Military Personnel	$ .1
Retired Pay	.7
Operations and Maintenance	1.0
Procurement	4.6
RDT&E	1.1
Military Construction	.7
Family Housing	.1
Defense-wide Contingencies	(.4)
Revolving and Management Funds	.1
Total	$ 8.0

Of the $6.4 billion reduction to the Procurement, RDT&E, and Military Construction accounts, approximately $2.9 billion recognized changes which one of the authorization committees had already recommended. The following table shows where the reductions occurred.

Recommended action	Total obligational authority: Procurement	RDT&E	Military Construction	Total
Terminate Roland	$ 529.3	$ 4.0	$30.7	$ 564.0
Terminate Oriskany reactivation	422.0			422.0
Defer Trident Submarine	960.8			960.8
Cancel TAH hospital ship (advanced procurement)	10.0			10.0
Defer 70 Patriot missiles	100.0			100.0
Terminate B-52 companion trainer aircraft development		21.1		21.1
Terminate combat aircraft prototype development		22.1		22.1
Terminate JP-233 development		60.0		60.0
Reduce major surface combatant (DDGX)		20.0		20.0
Restructure infantry manportable anti-armor weapon system effort		23.1		23.1
Reduce C-X effort		76.0		76.0
Other reductions	307.9	320.5	33.5	661.9
Total	$2,330.0	$546.8	$64.2	$2,941.0

In addition, of the $1 billion reduction in Operations and Maintenance, approximately $296 million recognized reductions proposed by authorization committees. In summary, approximately $3.2 billion of the $8 billion reduction was in areas which the Congress possibly would have eventually reduced. The administration, while recognizing the authorization committees' recommendations, probably also anticipated reductions in the Appropriations committees' reviews. The Chairman of the House Committee on Appropriations' Defense Subcommittee for example, was critical of the overall size of the Defense request and had proposed cutting approximately $11 billion.

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In the following chapters, we discuss the results of our efforts. Chapter 2 focuses on the investment accounts, chapters 3 and 4 on the operations and maintenance accounts, and chapter 5 on the personnel accounts. For each of these accounts, we first discussed with Defense officials what they had hoped to achieve with the additional funding and then selectively tested to see what had actually been accomplished and whether the monies seem to have been spent prudently. Chapter 6 discusses problems with Defense's Planning, Programing, and Budgeting system, and chapter 7 addresses overall budgetary matters which warrant additional consideration. A discussion of our scope and methodology is discussed in appendix I.

AGENCY COMMENTS

We discussed our observations with officials from the Offices of Department of Defense Comptroller, and Review and Oversight. As a result of these meetings we held additional discussions with Army, Navy, and Air Force headquarters officials. We have also circulated the draft report to officials within the Defense Comptroller's Office and Financial Management offices in the Army, Navy, and Air Force. Matters contained in the report were discussed with these officials and their comments were incorporated where appropriate.

CHAPTER 2

NEED FOR INCREASED EFFICIENCY IN THE INVESTMENT ACCOUNTS

Four major appropriation titles comprise the Department of Defense investment accounts--Procurement; Research, Development Test and Evaluation (RDT&E); Military Construction and Family Housing.

--The Procurement account funds the purchase of major weapon systems, ships, initial spares and repair parts of high value, trucks, generators, radios, and similar equipment.

--RDT&E funds research and development into future weapons and weapon systems, such as laser or space warfare/defense systems.

--Military Construction funding covers not only the construction of service facilities but also any construction related to major weapon systems.

--The Family Housing account pays for both new housing and family housing maintenance.

Since 1980 these four accounts have increased $40.2 billion going from $52.6 billion to $92.8 billion in fiscal year 1982. The Procurement and RDT&E accounts together accounted for $36.7 billion, or 91 percent of the increase.

To test how these increases were actually being applied within the Defense Department, we identified the administration's overall strategy for using the funding as well as the areas or programs receiving the largest increases. We then examined the rationale supporting the need for additional funding and to the extent possible determined the impact.

THE ADMINISTRATION'S PLAN

The administration's overall plan for procurement and RDT&E during fiscal years 1981 and 1982 was, in order of priority, to:

--fund readiness items (such as spares and support equipment),

--fund sustainability items (such as added days of supply for ammunition), and

--selectively modernize forces (such as procuring systems already in production at faster rates and procuring new systems whose research and development was sufficiently advanced to allow a rapid transition to production).

To do this, the Defense Department requested substantial funding increases and promised to manage more effectively. The Department initiated reforms which were designed to streamline the overall acquisition process and which stressed the need to procure more economically.

In March 1981, for example the Deputy Secretary of Defense established a steering group to provide recommendations on improving Defense's management of weapon systems acquisitions. The following month, the Deputy Secretary announced that 31 management initiatives suggested by the group would be undertaken. Subsequently another initiative encouraging use of competition was added.

Basically, the initiatives are directed at

--reducing acquisition cost,

--shortening acquisition time,

--improving weapon support and readiness,

--improving the acquisition milestone progress review process, and

--improving the stability of acquisition programs.

These actions were taken to stabilize the acquisition process and reduce the necessity for stretching out programs.

The following sections summarize how the administration's strategy was carried out in fiscal years 1981 and 1982.

What happended in fiscal year 1981?

From fiscal year 1980 to 1981, Procurement increased by $12.5 billion and RDT&E by $3.1 billion. In 1981, the two accounts funded over 1,800 items, including aircraft, aircraft support equipment, ships, tracked and other combat vehicles, ammunition, missiles, support equipment (such as trucks, radar sets, and communications and electronics gear), and major spares and repair parts for all of the above. The Procurement items receiving the largest increases were:

--Army: M-1 Tank,
Fighting Vehicles, and
aircraft spares.

--Navy: CG-47 AEGIS cruiser,
F-18 aircraft, and
FFG Guided Missile frigate.

--Air Force: aircraft spares,
missile support programs, and
selected activities (other procurement).

The largest RDT&E increase went to support the M-X program, over $800 million was spent in this area. A good portion of the largest increases funded readiness and sustainability items. Each of the three services substantially increased its funding of spare and repair part items. The modernization effort continued, as shown by the increased funding given to such major programs as the M-1, the F-18, and the CG-47. But the clear emphasis was still on readiness and sustainability.

What happend in fiscal year 1982?

In fiscal year 1982, the Procurement account increased by $17.6 billion and RDT&E by $3.4 billion. The two accounts funded over 2,000 items, approximately an 8-percent increase over the number of items funded in 1981. The items with the largest increases were:

--Army: AH-64 attack helicopter,
Patroit missile system,
and 5-ton truck,

--Navy: CG-47 AEGIS cruiser,
SH-60B helicopter (LAMPS) and
AV-8B (V/STOL) aircraft.

--Air Force: B-1 (LRCA),
aircraft spares and repair parts, and
selected activities (other procurement).

Research and development on the M-X system increased over $400 million and was the largest increase in 1982, as it was in 1981.

Each of the services' funding continued to reflect an emphasis on readiness and sustainability items; funding for spares and repair parts increased in both the Navy and the Air Force over 1981 funding. The modernization effort received increased visibility as such systems as the Division Air Defense (DIVAD) gun, AV-8B, and the B-1 moved from development to production. At the same, time, funding was substantially increased for more mature systems, such as the M-1, the CG-47, the F-18, and the Fighting Vehicles. It appears that, having met their most pressing readiness and sustainability needs with the fiscal year 1981 and 1982 increases, the services now had additional funds to invest more heavily in their overall modernization effort.

INCREASING READINESS AND SUSTAINABILITY

Within the investment accounts, funding readiness and sustainability means funding support items, such as spares, repair parts, and ammunition, as well as such items as radios.

Spares and repair parts

Funding for spares and repair parts has increased by $4.3 billion since fiscal year 1980 as shown on the next page.

	Spares and repair parts funding			
	FY 1980	FY 1981	FY 1982	Increase from 1980 to 1982
	(billions)			
Army	$0.5	$0.9	$1.1	$0.6
Navy	1.0	1.5	1.8	0.8
Air Force	1.3	3.0	4.2	2.9
Total	$2.8	$5.4	$7.1	$4.3
Percent of DOD Procurement Account	8	11	11	

We did not review these increases in detail, however, several recent GAO reports address the spares acquisition process. 1/ Likewise, we did not cover funding increases for conventional ammunition because of GAO's annual reviews of ammunition items in the services' budgets. Out of these current efforts we have concluded that improvements could be made in the services' systems for determining requirements such as

--improving the process and bringing about more consistency in assumptions and methods,

--combining spares orders with orders placed by contractors for their production line requirements,

--eliminating excess and premature requirements for ammunition items.

The Air Force, for example estimates it saved more than 14 percent ($64 million) by using combined purchasing procedures to buy investment spares and components for production of its A-10 aircraft. Also, Defense's agreement to implement our recommendation for using combined purchasing to buy

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1/"The Services Should Improve Their Processes For Determining Requirements for Supplies and Spare Parts" (PLRD-82-12, November 30, 1981)

"The Army Should Improve Its Requirements Determination System" (PLRD-82-19, December 1, 1981)

"Less Costly Ways to Budget And Provision Spares For New Weapons Systems Should Be Used" (PLRD-81-60, September 9, 1981)

F/A-18 investment spares may reduce program costs by $250 million to $330 million. In view of the billions of dollars worth of spare parts purchased annually, the potential for further significant savings is great.

The administration's 1982 request for ammunition exceeded $3 billion for approximately 60 Army items, 21 Navy items, and 53 Air Force items. GAO's review 1/ concluded that, due to excess and premature requirements, DOD's ammunition program was overfunded, and recommended that Congress reduce the request. Based on our review, Congress reduced DOD's conventional ammunition request by $77.9 million.

MODERNIZING THE FORCES

In order to review the modernization efforts of the services, we selected 28 programs for preliminary review. A list of these programs is contained in Appendix II. We tested the following:

--Can DOD absorb the large increases in the major weapons systems?

--Has DOD made sufficient progress to bring stability into the acquisition process?

A key issue affecting program stability is eliminating marginal programs and procuring high priority programs at more efficient rates of production. Both aspects are covered in this section.

Can DOD absorb the increases?

For the 28 systems on which we collected preliminary data, we did not find--except in one instance, the B-1 program--any difficulty in absorbing the increased funding. We reported to the House Committee on Appropriations that $179 million in B-1 RDT&E funds could be offset against the fiscal 1982 request. The committee acted on the recommendation and reduced this amount from the administration's 1982 budget request. The other systems had previously been funded at relatively low levels when compared to planned levels.

Recent macroeconomic studies indicate industry has the overall ability to absorb the increased spending proposed for defense, without adverse inflationary impact or the creation of bottlenecks in major industrial sectors. The primary reasons for this outlook are that:

1/"Adjustments Recommended in Fiscal Year 1982 Ammunition Procurement and Modernization Programs" (PLRD-81-35, June 30, 1981).

--Increases in defense spending over the next few years will be offset by the administration's proposed reductions in spending growth for non-defense programs.

--The recent economic downturn in the commercial sector has made sufficient unused production capacity available to absorb additional defense spending.

This assessment is also based on projections of current industry trends. However, an unexpected increase in private markets which compete with Defense for scarce resources (e.g., commercial aircraft production) could cause bottlenecks to occur.

Unfortunately, credible capacity data is not available regarding more detailed industrial sectors and little is known concerning the ability of the smaller, more specialized aerospace subcontractor base to absorb increased Defense spending.

Also, industrial capacity, particularly at the prime contractor level, may not be the limiting factor in the production of certain aircraft items. As reported by the House Armed Services Committee's Defense Industrial Base Panel, the Defense Science Board, and others, many limitations exist within industry's detailed infrastucture that are not directly related to capacity, such as:

--The availability relative to demand of strategic and critical materials required in item manufacture.

--The demand for and supply of many categories of skilled labor.

Little is known or can be projected with accuracy regarding these factors.

Has DOD stabilized the programs?

We selected 13 of the 28 programs for more extensive review to determine the effectiveness of the administration's program for stabilizing the acquisition process. To see whether greater stability was being achieved with the additional funding, we tested to determine whether:

--DOD was able to increase the number of systems procured, and

--were the resulting levels of production at the most efficient levels of production.

DOD's progress can be measured in several ways. If you measure it in terms of quantities to be procured, DOD did well. For the programs we examined, we observed that with the increased funding DOD was able to increase the quantities of systems to be procured when compared with the final Carter proposals for fiscal years 1981 and 1982.

Systems	Increase (Decrease) in quantities over Carter proposals for Fiscal year 1981	Fiscal year 1982	Combined
Army:			
M-1	209	96	305
Patriot	0	46	46
Fighting Vehicles	100	136	236
5-Ton Truck	445	2,502	2,947
Copperhead	(1,175)	321	(854)
Navy:			
Trident Submarine	0	(1)	(1)
CG-47	0	1	1
SSN-68	0	1	1
F-18	7	5	12
Air Force:			
Long Range Combat Aircraft	0	1	1
F-15	0	6	6
F-16	0	24	24
Air Launched Cruise Missile	0	0	0

In fiscal year 1982, we noted additional and more widespread progress in modernizing the forces. Of the systems listed above the additional funding provided additional quantities on all of the programs except the Trident Submarine and the Air Launched Cruise Missile.

Another way of measuring DOD's progress is to compare what actually happended in fiscal years 1981 and 1982 with the 1980-1984 Five Year Defense Program (FYDP). This particular FYDP was used because it provides Defense estimates for the programs selected for fiscal years 1980 through 1984, that were developed prior to the influx of increased DOD funding by the Carter and Reagan administrations. In this case the results are mixed. While DOD has made progress towards modernizing its forces with the additional funding it has received in fiscal years 1981 and 1982, the increases in most cases have been insufficient to procure the quantities contained in that particular FYDP.

	Increase (Decrease) in quantities over levels contained in 1980-84 FYDP		
Systems	Fiscal year 1981	Fiscal year 1982	Combined
Army:			
M-1	(22)	(326)	(348)
Patriot	(54)	(224)	(278)
Fighting Vehicles	-	-	-
5-Ton Truck	401	3,569	3,970
Copperhead	(3,875)	(5,450)	(9,325)
Navy:			
Trident Submarine	-	(1)	(1)
CG-47	-	1	1
SSN-688	1	1	2
F-18	12	(33)	(21)
Air Force:			
Long Range Combat Aircraft	(a)	(a)	-
F-15	(18)	6	(12)
F-16	-	(60)	(60)
Air Launched Cruise Missile	-	(40)	(40)

a/Program not contained in 1980-84 FYDP.

Procuring at more efficient production rates

DOD heavily funded selected major weapon sytems in an effort to modernize the services. DOD did this with two objectives in mind (1) increase the quantity procured and (2) decrease the cost per item procured.

What we found, however, was that the availability of funds, not the efficiency of procurement, drives the quantity of major weapons procurred.

Of the weapon systems we reviewed, the program offices had identified the most economically efficient procurement levels for some of the systems. Even when these levels were identified, most of the systems were not procured at those levels, as illustrated below:

Program	Most Efficient Production Rates	Quantity procured (1982)
Fighting vehicle system	600	600
M-1 tank	1,080	665
PATRIOT missile	960	176
STINGER missile	9,600	2,544
F-15 aircraft	144	36
F-16 aircraft	a/240	120
F-18 aircraft	240	63
Air-launched cruise missile	480	440

a/Includes foreign military sales.

Although some of the systems listed above are just entering the production stage and could not be produced at the most efficient levels in fiscal year 1982 , others, such as the F-15 and air-launched cruise missile, are mature systems being procured at lower levels primarily because of insufficient funding.

Inefficient production rates result in higher unit costs, reduce DOD's purchasing power, and result in program instability. It is not practical because of the many competing requirements for defense dollars for DOD to expect to fund all weapons systems at the most efficient rates. It is recognized that trade-offs need to be made as to when to expedite the production of certain systems critical to Defense needs and continue to fund others with significant potential in future years at lower levels. The important thing is to establish for each system the various levels at which economies can be achieved so that decisionmakers in the Congress and the DOD are aware of what the economic impacts are when they increase or decrease program funding.

Overall, the increased funding has brought some added stability to the acquisition process. However, even though the final funding levels generally exceeded the levels contained in the FYDP, fewer systems were procured. The reasons for the cost growth varies among programs, but the following examples illustrate the problems:

Patriot missile program

In comparing the approved funding levels for fiscal years 1981 and 1982 with the levels shown in the 1980-1984 program for the Patroit missile, we noted:

--The approved funding levels exceeded the 1980-1984 levels by $22 million and $173 million for fiscal years 1981 and 1982, respectively.

--The quantities actually procured were below the FYDP levels for fiscal years 1981 and 1982. In 1981 the Army procured 130 missiles rather than the 184 contained in the FYDP. In 1982 the Army plans to procure 176 missiles rather than the 400 contained in the FYDP.

In this instance even though the approved funding levels exceed the levels contained in the FYDP the Army is still unable to procure the quantities it had intended. Army officials attribute this disparity to:

--Higher than anticipated rates of inflation.

--Unanticipated development problems which required design changes.

--Congressional and Defense budget cuts.

In January 1981, the Carter administration's fiscal year 1982 budget proposed procuring 12 fire units and 130 missiles for $486 million. The Reagan administration proposed in March 1981, to procure 12 fire units and 364 missiles for $820.8 million. In its October revisions, 3 fire units and 70 missiles were eliminated and the program cost was reduced by approximately $100 million. The final appropriation reduced the program to 9 fire units and 244 missiles for $670 million. Army officials told us that they had never planned to procure 244 missiles at the above estimates; rather they will be able to procure only 176 missiles and will have to reprogram an additional $5.6 million into the program to do so. In effect, 9 fire units and 176 missiles will cost $675.6 million. Army officials also estimate that program costs have increased by at least $150 million.

F-18 aircraft program

In a similar analysis of the F-18 program, we noted:

--The approved funding levels exceeded the FYDP level by $463.7 and $233.1 million in fiscal years 1981 and 1982, respectively.

--The quantities actually procured were higher than the FYDP level in fiscal year 1981 and below the FYDP level in fiscal year 1982. Overall procurement for the two fiscal years was 21 aircraft below that planned for in the FYDP.

The main factors contributing to the increased costs to procure fewer aircraft, according to Navy officials, are:

--higher than anticipated inflation,

--technical and schedule changes,

--increased quantities reflecting the priority given to the F-18 program by the Reagan administration over that of the previous administation.

SSN-688 Submarine program

The SSN-688 Nuclear Attack Submarine program increases, in part, reflect the Reagan administration's commitment to expanding the size of the naval forces to 600 ships.

Unlike aircraft or missile procurement, in most of the programs we selected for review, procurement of ships met or exceeded the quantities contained in the FYDP. For the SSN-688, we noted:

--The approved funding levels exceeded the FYDP level by $352.1 and $349.6 million in fiscal years 1981 and 1982, respectively.

-- The quantities procured in fiscal years 1981 and 1982 were two per year versus the one per year contained in the FYDP.

Our review showed the additional funds were directly attributable to quantity increases.

F-15 aircraft program

In comparing the appropriated funding levels for fiscal years 1981 and 1982 and the amounts shown in the FYDP, we noted:

--The approved fiscal year 1981 funding is approximately $250 million below the FYDP level. For fiscal year 1982, the situation is reversed with the approved funding approximately $383 million over the FYDP level.

--The 42 aircraft procured in fiscal year 1981 combined with the 36 procured in fiscal year 1982 are still 12 below what had been programed for the two-year period.

The main factors contributing to the increased cost in fiscal year 1982 were:

--The effects of high inflation.

--The increased quantities to be procured. This also reflects the higher priority the F-15 program is receiving under the current administration. The Reagan administration has identified a need for 390 additional F-15s to modernize the Strategic Air Command.

In January 1981, the Carter administration proposed procuring 30 aircraft for $743 million in fiscal year 1982. The Reagan administration's March budget amendment for fiscal year 1982, provided for $1.2 billion to procure 42 F-15s. This funding was also to procure needed support equipment for speeding up the conversion of a reserve air defense squadron from F-106s to F-15s. As a result of expected congressional action, DOD reduced its request to 36 aircraft for $980.2 million in the latter part of 1981. This request was subsequently approved, and Air Force officials have informed us that additional costs will be incurred in later years because of the deferment of the aircraft, as well as needed ground support equipment. In addition, the unit cost for each of the 36 aircraft which will be procured during fiscal year 1982, has increased, according to Air Force estimates, by approximately $700,000.

From these examples and other examples contained in Appendix II, we see that in general the funding levels approved by the Congress have exceeded the levels contained in the 1980-1984 FYDP for fiscal years 1981 and 1982. The services have been unable to procure the systems in the quantities they had desired. The primary factors contributing to this situation were:

--Higher than anticipated inflation.

--Developmental difficulties.

--Schedule changes.

All three lead to program instability as does the problem of eliminating marginal programs to fund higher priority programs at more efficient levels of production as discussed below:

Progress made in eliminating programs

In March 1981, the Defense Department announced the cancellation of 16 RDT&E programs totaling $209 million, which had been in the previous administration's 1981 and 1982 budgets. In its October revision, DOD claimed credit for eliminating an additional seven Procurement programs and five RDT&E programs valued at approximately $1.6 billion. A list of these programs and their proposed 1982 budgets is provided below:

Programs canceled	Total obligational authority: Procurement	Total obligational authority: RDT&E	Authorizing committee action
	(millions)		
Army:			
Roland	$ 529.3	$ 4.0	Reduce
Subtotal	529.3	4.0	
Navy:			
ORISKANY reactivation	422.0	-	Terminate
TAKX maritime prepositioning ship	392.0	-	None
TAH hospital ship (Advance Procurement)	10.0	-	Terminate
Subtotal	824.0		
Air Force:			
Minuteman extended survivable power program	45.0	-	Terminate
Titan class IV Modification program	20.0	-	None
Air-Launched control system phase III mod to C-135	1.7	18.8	None
JP-233 (low-altitude-airfield attack system)	-	60.0	Terminate
B-52 companion trainer aircraft program	-	21.1	Reduce
Combat aircraft prototype program	-	22.1	Terminate
Wide-area anti-armor munition program	-	23.1	None
Flight simulator development for B-52D	-	15.2	Reduce
Subtotal	66.7	160.3	
Total	$1,420.0	$164.3	

As indicated, the House and Senate Committees on Armed Services had recommended terminating or substantially reducing most of these programs. This, in conjunction with what the Appropriations Committees were likely to recommend, suggests that the impetus of these cancellations came from the Congress. In addition, two of the projects are not really being canceled; alternatives to the TAKX prepositioning ship and TAH hospital ship will be pursued. In any event, the combined total of the March and October cancellations amounts to only 2 percent of the final fiscal year 1982 Procurement and RDT&E appropriations.

Defense's inability to substantially eliminate the number of lower priority programs conflicts with a statement made by the Deputy Under Secretary for Acquisition Management in December 1981

> "The balance between across-the-board response to threats and program stability is difficult to strike, but unless we reduce the number of programs, and at the same time preserve the required funding for our 'stable' programs, our Acquisition Improvement Program will not succeed."

Not only has DOD had difficulty eliminating the number of lower priority programs but the number of Procurement and RDT&E items funded has increased since 1980.

In 1981, the $15.6 billion increase in the investment accounts was spread over approximately 1,872 line items. Thirty-four of these items increased by over $100 million and, in total, accounted for $10.8 billion, or 69 percent of the increases. This left $4.8 billion to be spread over approximately 1,838 line items.

In fiscal year 1982, the $21.0 billion increase was spread over approximately 2,025 line items, and 41 items increased by over $100 million. The 41 items accounted for approximately $12 billion, or 57 percent, of the increase. Of the 75 line items which increased by over $100 million in either of the fiscal years, 65 were different.

It appears that this trend is continuing; the proposed fiscal year 1983 budget includes 2,110 line items in the procurement and RDT&E accounts.

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In summary, while it is not practical to procure every weapons system at the most economical production level, these levels should be determined and be used as one of the major factors in funding a program.

The Administration did eliminate some programs but its impact on the fiscal year 1982 investment appropriation was only about 2 percent. No doubt this is a function of time and the administration has not had sufficient opportunity to implement its program. However, we would encourage the Secretary of Defense to designate its top priority programs and fund them at the most efficient rates.

MILITARY CONSTRUCTION PROGRAM

The total military construction program 1/increased from about $2.2 billion in fiscal year 1980 to about $4.9 billion in 1982. 2/ Defense estimates that the total program will exceed $9 billion by fiscal year 1985. With respect to the Active Forces, Military Construction appropriations increased by over 100 percent from 1980 (about $1.9 billion) to 1982 (about $3.9 billion).

The increases in these appropriations had been anticipated in the Carter budgets, which had requested Active Force appropriations of about $2.5 billion in 1981 and about $4.7 billion in 1982. Programwise, Reagan's changes provided more emphasis on facilities for weapon systems and projects involving quality of life and environment and less emphasis on funding for energy conservation projects.

The Military Construction program consists of many projects of a relatively small-size dispersed throughout the world. For example, of the 3,680 projects included in the total Military Construction programs for fiscal years 1980 through 1983, only 59 projects exceeded $25 million each in estimated cost. During this review, we did not visit any projects or review the justifications. Military Construction generally gets much closer scrutiny by Defense and the Congress, and the line item justification provides much greater visibility in this appropriation than in some of the others.

1/Includes the Active Forces, plus defense agencies, NATO Infrastructure, and Guard and Reserve Forces.

2/In addition, the separate Family Housing appropriations totaled about $1.6 billion in 1980 and about $2.3 billion in 1982.

Program shortfalls

In recent years, the congressional committees responsible for Military Construction Appropriations have been concerned over an apparent shortage of funds (shortfalls) to complete authorized and funded projects. Defense's 1982 shortfalls request of about $387 million was attributed primarily to cost overruns on certain major projects (such as the Air Force Space Transportation System), congressional underfunding of authorizations, emergency and disaster projects, and inflation.

In enacting the fiscal year 1982 appropriation, the Congress funded the full $242.5 million shortfall request for the Air Force. The deletion of the Army's request reflected improved market conditions for construction contracting which resulted in lower bids, and more favorable currency exchange rates. For the Navy, additional funds were provided through authorizations of new projects. The Air Force was provided the full amount of its shortfall request primarily because of the cost growth it experienced on the Space Transportation System.

In trying to solve the active services' shortfall in fiscal year 1982, the House Committee on Appropriations emphasized to Defense that "the Committee does not anticipate any funding shortfall requests in the future."

The services' construction funding shortfalls were alleviated in 1982 by a combination of several factors. The improved bidding climate and more favorable currency exchange rates generated savings which the services applied to their shortfalls. Also, the Congress directly aided the Navy and the Air Force through the appropriation process.

However, the congressional actions taken in fiscal year 1982 did not eliminate the total shortfall then in existence. For example, the Air Force's request of $242.5 million was actually $152.5 million less than its total identified shortfall needs of about $395 million. The Air Force excluded from its shortfall request those projects it considered absolutely necessary for eventual award and construction. The Air Force believed that any projects on the shortfall list that were not funded by the Congress would potentially face difficulties if and when the Air Force tried to award the projects. By leaving the critical projects off the shortfall list and in the regular budget, the Air Force felt it could somehow find money to award them. Moreover, the congressional actions could not preclude recurrence of the those factors--cost overruns, higher than anticipated inflation, worsening bidding conditions, and unfavorable currency fluctuations--that could result in new shortfall requests in the future.

Planning and Design Funds

Planning and design funds provide the foundation for constructing facilities 2 to 3 years in the future. Since fiscal year 1980, planning and design funds for the total Military Construction program have increased by over 100 percent--from $185 million in 1980 to $397 million requested in 1983.

Military construction projects are supposed to be at least 35 percent designed at the time they are submitted to the Congress for funding. Over the past few years, the services have experienced difficulties in meeting this standard. In addition, for fiscal year 1984, the services are concerned that a shortage of skilled technical personnel may be a major constraint on their efforts to execute their planning and design programs. If the services' past difficulties continue and their present concerns regarding the fiscal year 1984 program are realized the efficient execution of the planning and design program and ultimately the construction program could be hindered.

CONCLUSIONS

In the investment accounts, DOD has set its goals to improve its overall military posture by emphasizing readiness and sustainability while selectively modernizing the forces. It has developed a number of initiatives to streamline the acquisition process so that it could accomplish these goals more efficiently. Although many of these initiatives are still in the formative stages, we support these efforts.

DOD has generally used its increases in Procurement and RDT&E funds to address its stated objectives. Specifically readiness and sustainability items were given top priority and modernization was carried out selectively. Its modernization efforts were hampered because there is not sufficient funding available to cover the many expensive programs it is attempting to develop and procure. The result is that programs are still underfunded, costs are increasing and modernization is being delayed. To procure these systems at the most efficient rates would require substantial increases in Congressional appropriations. The alternative is to reduce the number of programs.

RECOMMENDATIONS

We recommend that the Secretary of Defense:

--Follow through on the plan to cut lower priority programs so that higher priority programs can be funded at more efficient production rates.

--Provide pricing data at various rates of production to Congress, to allow it to consider the impact of additional changes balancing mission needs against available funding.

CHAPTER 3

NEED FOR CLEARER STRATEGY AND GOALS FOR USING OPERATIONS AND MAINTENANCE FUNDS

The operations and maintenance account has increased approximately $15.5 billion, or 33 percent, since fiscal year 1980. The account provides day-to-day funding for a wide range of programs in support of the operating forces. The programs include maintenance of facilities and equipment, training, civilian personnel, fuel, and medical care. The Department of Defense estimates that approximately 80 percent of the operations and maintenance appropriation is needed to cover such recurring operating costs as maintenance, utilities, laundry, and security. These costs are referred to as the "core," or fixed, costs which must be covered before new programs can be initiated.

Unlike the investment accounts where the impact of increased funding may not be realized until several years after the funds are appropriated, the level of funding for operations and maintenance has an immediate impact. The large operations and maintenance increases were to be a quick solution to improving readiness and sustainability. For example, funding for depot maintenance was increased to hasten the availability of equipment to the forces. Large increases were authorized for the repair and maintenance of real property to not only enhance readiness but also improve the living and working conditions of service personnel. In addition, significant increases in funding were directed toward specific projects, such as Joint Chiefs of Staff exercises and the force modernization program, both important elements in the effort to increase readiness. (See appendix III for the major program increases.)

We reviewed selected programs to determine if funding increases related to defense, service, and command objectives were applied to programs having the highest priorities. We also wanted to determine if programs could absorb the funds efficiently and could be effectively executed. Since a significant portion of the funding increase was directed toward a few programs we concentrated our effort on these. (The chart on the following page shows the dollars and programs reviewed.)

JOINT CHIEFS OF STAFF EXERCISES

Joint Chiefs of Staff sponsored exercises are important in improving readiness and increasing combat proficiency. The Air Force plays a critical role in these exercises by providing needed airlift services. The Air Force budget for the exercises increased from $133 million in fiscal year 1980 to a requested $379 million in 1982, an increase of $246 million. This included $97 million as a result of the 1982 budget amendment request; $3 million for increased fuel rates, and $94 million for exercises.

Operations and Maintenance Budgets

of Programs Reviewed (as of March 1982)

Program	Army			Navy			Air Force		
	FY 1980	FY 1982	Increase	FY 1980	FY 1982	Increase	FY 1980	FY 1982	Increase
	(millions)								
Joint Chiefs of Staff exercises	$ 35	$ 67	$ 32	$ 2	$ 2	$ 0	$ 133	$ 300	$ 167
Depot maintenance	790	1,091	301	-	-	-	1,801	2,669	868
Aircraft rework	-	-	-	$ 995	$ 1,480	$ 485	-	-	-
Real property maintenance activities	1,548	2,710	1,162	1,065	1,534	469	1,541	2,205	664
Force modernization	27	938	911	-	-	-	-	-	-
Total Operations and Maintenance, Active Forces	11,023	15,311	4,228	14,987	19,589	4,602	12,421	16,124	3,703

Air Force officials told us that funding requested in the budget amendment exceeded current requirements for training exercises. In fact, the exercises were already funded at an enhanced level, and additional funding was not needed because the Air Force could not provide the support needed to execute the planned exercises.

In response to the administration's October 1981 request that monies be cut from the 1982 Defense budget, the Air Force, therefore, identified an excess of $79.4 million. The Air Force also notified the House Subcommittee on Defense that the exercises were overfunded. The budget request was subsequently reduced by this amount.

The Air Force should be commended for identifying these excess monies and for notifying the Congress. Nevertheless, this illustrates what can happen when funds are hastily distributed among programs before the need for such funds is adequately considered.

ZERO BACKLOG IN DEPOT MAINTENANCE: A QUESTIONABLE GOAL

To increase readiness and sustainability, the Army and Air Force have established a goal of achieving a zero maintenance backlog for their depot programs by the end of fiscal year 1982. This goal calls for financing all maintenance requirements identified at the beginning of the year, as well as unanticipated requirements arising during the year. The Navy, while it has not established a goal of a zero backlog, has significantly increased funding to reduce its backlog of airframes and engines. Overall funding for depot maintenance programs 1/ increased from $4.1 billion in fiscal year 1980 to $6 billion in fiscal year 1982, an increase of $1.9 billion. We believe that a goal of a zero maintenance backlog may not be achievable or cost effective and may have little appreciable impact on readiness. The services should determine what the optimum backlog level should be and how its reduction will improve readiness.

A zero backlog may not be achievable

The services' maintenance requirements for the fiscal year 1981 depot programs fluctuated significantly, both in terms of value and number of items to be overhauled. Overall, requirements tended to increase throughout the year. Because of these fluctuations, we believe that the services cannot state with confidence that a zero backlog is achievable unless the Congress provides supplemental funding or they divert funds from other programs.

The Army received $933 million to fund maintenance requirements in fiscal year 1981, which left a backlog of $87 million. It plans to eliminate the remaining backlog during fiscal year 1982.

1/ Excluding ship maintenance and modernization.

The Army's fiscal year 1981 depot program experienced a cost growth of $41 million. The Army attributes this cost growth to newly identified requirements, program cost growth, and the need to reimburse the Army's industrial fund. Thus, to maintain the same backlog level, the Army had to divert an equal amount of funding from other programs. It appears, because of the changing requirements and uncontrollable cost growth, that extensive redirecting of money between programs would be necessary to achieve a zero backlog in fiscal year 1982.

The Navy planned to rework 1,554 airframes, 3,453 engines, and $691 million worth of aircraft components in fiscal year 1981. However, in November 1981, the Navy's aircraft rework program manager reported that only 1,365 airframes and 2,753 engines were overhauled and repaired during the year. Although an additional $30.4 million had been programed for component rework, a $30 million backlog still remained. At the same time, program managers were projecting the aircraft maintenance backlogs to increase during fiscal year 1982, rather than decrease as predicted.

Navy officials attributed the failure to achieve their maintenance goals primarily to changes in requirements toward larger numbers of more costly and time-consuming rework than predicted. To a lesser extent, they blamed the inefficiencies brought about by responding to frequent changes in requirements and employing temporary workers to absorb funding increases.

In fiscal year 1981, the Air Force received $2,358 million including supplemental funding, to fund its depot maintenance program. This is $254 million more than contained in the Air Force's initial budget request. The increased funding was used primarily to fund increased requirements and eliminate an outstanding backlog of $103 million. Air Force officials said requirements increased over original estimates because of unprogramed operations changes affecting maintenance requirements, decreasing predictability of maintenance needs for aging aircraft, and inaccuracies in cost and inflation factors used in predicting requirements. Air Force officials also said that requirements change because more than 12 months may pass between the preparation of the budget estimate and before it is approved by Congress.

While the Air Force made progress toward reducing its backlog, it did not eliminate it completely. Officials told us they did not achieve a zero backlog because there was insufficient time to absorb the additional workload created by increased program requirements. It is not clear how much the backlog was actually reduced. Air Force headquarters' position is that it was reduced to $11.9 million at the year's end. However, the Air Force Logistics Command's (the day-to-day program manager) final figures for fiscal year 1981 show a $44.5 million backlog. Air Force officials explained this discrepancy as a difference of opinion over the amount of total program requirements.

A question surfaced in this review as to what the services mean by the term "zero backlog." It appears to us that, if the services are trying to achieve a true zero backlog as they have depicted to the Congress, the processing of items in uneconomical lots will result. A backlog of at least a few months is needed to provide for orderly and economic workload scheduling. In our discussions with congressional committee staffs and DOD and service officials, we have heard conflicting opinions about what the perceived goals are--a true zero backlog or something less. DOD should resolve this matter so that the services uniformly interpret a zero backlog in presentations to the Congress.

Achieving a zero backlog is costly

The goal of eliminating all maintenance backlogs has significantly increased the workload at depot facilities. To accomodate the increased workload, the services have hired additional personnel, used temporary employees, and authorized increased overtime-paid employees. The sudden surge in the size of the work force and the use of temporary and overtime employees was not cost effective and resulted in higher maintenance costs.

To absorb the increased workload, the Navy used temporary employees and hired full-time permanent employees. From the last quarter of fiscal year 1980 to the first quarter of 1982, temporary hires at the Navy's six air rework facilities increased from 436 to 2,247, an increase of 1,811. For the same period, full-time permanent employees increased from 22,259 to 23,813, an increase of 1,554 employees. Navy officials told us that temporary employees are used because of personnel ceilings established by the Congress.

Based on our discussions with Navy officials and a review of performance data, we found that as the number of new hires increased, the efficiency of the work force dropped significantly. For example, as the hiring of new employees reached its peak at one naval air rework facility, the efficiency of the work force dropped approximately 15 percent. We believe that this drop is the result of expanding the depot program too quickly.

Finally, in a number of reports, we have questioned the use of pre-established cycles as a basis for maintenance scheduling and the classifying of equipment as backlogged maintenance when it fails to meet this schedule. When the operating cycles have not been based on historical failure data but have been arbitrarily established over the years unnecessary maintenance is performed. We have recommended that DOD fully implement the reliability centered maintenance concept (RCM). Preinspection of an item to determine its material condition and readiness is a valid part of RCM. Scheduling maintenance should be based on the results of these inspections.

A zero backlog may only partially impact on readiness

It is assumed that readiness will increase if all maintenance requirements are funded. However, maintenance requirements consist of both high and low-priority items, not all of which are combat essential. This is particularly true as the services work off the backlog.

In a 1981 report,[1/] the Defense Audit Service concluded that the Army's $91.6 million depot maintenance backlog and the Navy's $236.8 million aircraft and ship backlog as of April 1981 did not seriously affect readiness.

Many of the Army's backlogged items either were not combat essential or were so few compared with total inventories that they were not mentioned in readiness reports. And Navy readiness reports showed no evidence that the backlog was related to readiness problems.

NEED FOR BETTER PRIORITIES IN FUNDING REAL PROPERTY MAINTENANCE PROJECTS

We made a limited review of projects in the Army, Navy, and Air Force to determine what strategies were employed and to determine whether any projects unrelated to the general objectives were being funded. We reviewed a selected sample of projects at the Army's Training and Doctrine Command and U.S. Army, Europe, the Navy's Oceana Naval Air Station, and at the Air Force's Tactical Air Command, and Langley, Seymour-Johnson, Andrews, and Bolling Air Force Bases.

While our review was limited, we observed some projects and procedures which raised questions as to how well strategies were implemented to ensure incremental funds targeted for improving readiness and quality of life were applied to those objectives in general, it was left up to the various major and local commands to determine project priorities and whether individual projects would be funded. In our discussions with base officials, we were told that project priorities were established through normal base prioritizing procedures, which are based on local interpretations of readiness and quality of life as well as considering competing demands from various base organizations.

Recognizing that there were many projects funded which were vital to readiness and quality of life--repair of boiler plants, leaking roofs, runways, etc.--there seemed to be a lack of uniform policies, or criteria as to how additional funds not required for these types of projects should be applied with respect to readiness and quality of life. Also, where priorities

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1/ "Report on the Survey of Depot Maintenance Backlog (Project 156-090)" (No. 82-106, Oct. 26, 1981).

were established, but not necessarily based on specific readiness or quality of life criteria, they were not always followed.

Consequently, there appears to be a need for DOD to establish more specific strategies for obligating the funds; namely, to define what types of projects contribute to readiness and quality of life and to direct that projects extraneous to these goals be carefully scrutinized before they are funded.

Training and Doctrine Command

Although the Army's Training and Doctrine Command (TRADOC) has established a system for validating and prioritizing real property maintenance projects, the system does not affect the order in which projects are funded. Each year local installations submit a master list of real property maintenance projects to the command for validation. All projects over $10,000 are validated and assigned priority ratings for justifying and distributing funds. The validation process is based on five factors: (1) functional use of facility, (2) justification for the project, (3) type of projects, (4) condition of facility, and (5) installation priority. TRADOC engineers told us impact on readiness is considered in the first category. Projects receive a numerical rating score based on these factors. Scores over 35,000 are considered high priority while scores less than 20,000 are considered low priority.

In addition to a master list of projects each installation also prepares a list of projects that are subject to the availability of funds. TRADOC and its installations fund these projects as additional funds become available at the end of the fiscal year. In fiscal year 1981 TRADOC funded $57 million of projects with end of the year funding and its installations funded $8.9 million. The table below shows the amount of high and low priority projects funded by TRADOC with end of the year funding.

FUNDED BY TRAINING
AND DOCTRINE COMMAND

Rating	Amount (millions)	Percent
High priority (35,000 and above) (note a)	$ 8.0	14
Medium priority (between 20,000 and 35,000)	34.8	61
Low priority (less than 20,000)	2.4	4
No rating (not validated)	11.8	21
Total	$57.0	

a/ $1,018,458 in high-priority projects remained unfunded at the end of the year.

Installations can also fund projects from their own operating budgets. For example, TRADOC installations funded the following projects in fiscal year 1981.

PROJECTS FUNDED BY INSTALLATIONS

Rating	Amount	Percent
High priority (35,000 and above)	$ .9	10
Medium priority (between 20,000 and 35,000)	4.8	55
Low priority (less than 20,000)	.5	5
No rating (not validated)	2.7	30
	$8.9	

A review of both charts shows that only about $9 million was spent on high-priority projects, although more than half of all available funding was spent on medium-priority projects. The tables also show that more than $17 million was spent on low-priority projects or projects that had not been validated.

Fort Eustis officials said that the training command's ratings do not affect the order in which projects are done. Additionally, if the command does not validate a project, the installations can still fund the project out of its own operating budget. We were told that the command has never challenged an installation for funding a low-priority project.

Because the priority system is not always followed in funding projects, projects which are not directly related to improved readiness and quality of life, or are not cost effective, may be funded. For example:

> Fort Eustis is renovating 23 temporary wooden barracks at an estimated cost of $100,000 a building. Exterior work includes placing insulation over the wooden siding and then covering it with vinyl siding. Interior work includes installing wallboard and thermopane windows, replacing electrical wiring and fixtures, and rehabilitating the latrines. The barracks are used by reservists attending training sessions. Most training is scheduled between March and October, and six barracks remain open for training during the winter months. The Army Area Audit reviewed the use of the barracks and, at the time of completion of our work, had tentatively concluded that 16 barracks would accommodate the number of reservists attending Fort Eustis.

We believe that the decision to renovate these barracks does not appear to be cost effective. More barracks are being renovated than needed, and because they are primarily used in the spring and summer, the additional costs of insulation and thermopane windows are not justified.

Since completion of our audit work, Army officials told us that active duty school personnel will also use the barracks. Nevertheless, the project illustrates how the system is not always effective in screening projects and that more definitive guidance for funding projects is needed.

U.S. Army, Europe

The backlog of maintenance and repair for U.S. Army, Europe (USAREUR), facilities has been increasing for over a decade and, in the beginning of fiscal year 1982, amounted to about $1.3 billion. To reduce the backlog, funding has increased from $492.6 million in fiscal year 1980 to $832 million, an increase of $339.4 million. USAREUR's number one priority is to provide a dry, warm, and well-lighted environment for personnel to live and work in. The majority of funds were for barracks; utilities; and various operations, training, and community facilities.

We found that actual 1981 expenditures and the planned distribution of 1982 funds were generally targeted to specific problem areas. As shown in the following table, funds were generally distributed and spent in relation to the amount of unfinanced backlog. The outstanding backlog also correlates with USAREUR's funding priorities.

	Unfinanced backlog end of FY 1980	Direct expenditures FY 1981
	(percent)	
Buildings:		
Bachelor housing	19	21
Maintenance buildings	16	7
Community buildings	12	13
Storage buildings	7	5
Administration buildings	5	6
Other buildings	8	7
	67	59
Utilities:		
Heat systems	9	12
Electrical systems	2	3
Water systems	2	2
Sewer systems	2	3
Other utilities	2	5
	17	25
Surfaced areas	11	7
Railroad maintenance	1	4
Miscellaneous maintenance	3	4
Total	100	100

At five commands in Europe, we found that projects funded generally adhered to USAREUR's priority guidelines. Of 500 projects worth $35 million, almost all followed established guidelines. A few appreared to be unnecessary, but on closer examination we found that:

--Some projects that enhance a facility's appearance but not necessarily its structural integrity are sometimes funded in response to pressure applied by the German Government to meet local codes. One such situation involved the repair of a fence at a military installation for the safety of local residents.

--Base commanders may exercise their prerogative and direct projects to be extended ahead of other priorities. For example, one base commander requested design engineers to design a $77,000 project to convert an attic to a band rehearsal hall. About $18,000 of an account earmarked for the advanced design of 1982 maintenance and repair projects was applied to this project. We did not find significant amounts of money spent in this manner at the commands visited.

Tactical Air Command

The Tactical Air Command's priorities for distributing facility funds generally followed base priorities which were not established in accordance with any uniform criteria. Thus, there is no guarantee that important projects, such as those related to readiness, safety, and security, will be funded before projects relating to quality of life, base appearance, etc.

Although facility project funds are centrally administered by the Command, some projects are funded from other sources, including base operating funds and the commander's reserve account. These funds are allocated at the discretion of the various wing or base commanders and, Tactical Air Commander, respectively.

According to an engineering staff officer, the command does not receive specific guidance from Air Force headquarters on how it should spend its Operations and Maintenance funds for facility projects. These decisions are made by the command's facilities board, a panel of high-level command and staff officers which allocates available facility project funds based on the relative needs of each base. Factors considered in determining the needs of each base include (1) the size and age of base facilities, (2) past funding levels, (3) one-time requirements, and (4) command interest. In fiscal year 1981, for example, Langley Air Force Base was allocated over $6 million, while Myrtle Beach received about $1 million. The difference in funding levels was primarily due to the Tactical Air Commander's interest in upgrading the condition and appearance of Langley's facilities, which are much older and larger than those at Myrtle Beach.

Our analysis of the 1981 base project list shows that more than 30 percent of the projects funded by the command had not been assigned command priorities.

	Facility Projects (note a)			
Command priority	Total	Carry over	Award	Percent Awarded
Minor construction:				
High priority	122	28	94	39
Low priority	121	44	77	31
None assigned	114	42	72	30
	357	114	243	
Maintenance and repair:				
High priority	132	39	93	51
Low priority	54	34	20	11
None assigned	124	55	69	38
	310	128	182	

a/Excludes strategic and medical facility projects.

It is apparent the system used to set priorities does not ensure that the most urgent projects are funded. Command interest in base appearance appears to be a very high priority. For example:

--A project at Langley Air Force Base called for the installation of metal, simulated redwood slats in chain link fencing in various sites throughout the base at a cost of over $50,000. The slats were to be used to hide "eyesores." Based on our observation of two sites, however, the sites could not be considered eyesores. One site was a cluster of large petroleum storage tanks which could not have been hidden by a 5- to 6-foot chain link fence. Moreover, the tanks did not have an unpleasant appearance because they were painted in colors coordinated with other base facilities. The other site was a vehicle parking area which appeared to be very clean, including the vehicles which were large yellow trucks parked in an orderly pattern. This project did not appear to be worthwhile and, in fact, was likely to increase fence maintenance costs in the future. Officials subsequently informed us that they were reducing the number of sites included in the project.

--We observed three other projects at Langley that appeared to be "nice to have" such as a new gate house, visitor center, and parking area being constructed at a combined contract cost of $150,000. While it can be argued that all the projects we observed are valid, the question arises as to whether these are the type of projects that are most essential to improving readiness and the quality of life.

--A project at Seymour-Johnson Air Force Base estimated to cost about $100,000 was for a new golf course maintenance building which would be closer to the center of the golf course and, therefore provide better access than the current facility located on the edge of the course. We found nothing wrong with the present facility. Base officials agreed and explained that the real reason the new facility was needed was so that the old golf course maintenance building could be used to replace the base housing maintenance facility, which had apparently been badly damaged by termites. Officials said they had attempted to obtain housing funds to replace this facility, but the funds had not been available for several years.

CONCLUSIONS

Most Operations and Maintenance funds appear to have been applied appropriately in meeting the services' general objectives of improved readiness, sustainability, quality of life, and modernization. However, the Department of Defense lacks a well-planned strategy and priority system for applying increased funding to Operations and Maintenance programs. As a result, funds have been applied to some programs in excess of what they could absorb efficiently and effectively and to items within programs which contribute little to the services' goals or to cost effective management.

More specific guidance is needed for funding real property maintenance projects to ensure that additional funds are spent prudently on projects which meet the objective of increased readiness and quality of life. For example, each service should identify which type of general objective is being served by each type of maintenance, repair, or minor construction project and should rank and fund the projects according to their contribution to the general objectives. Also, in depot maintenance, backlogged items should be specifically identified and prioritized according to their contribution to readiness or sustainability. Rather than funding the depot maintenance program to eliminate backlogs, the services should analyze how much workload can efficiently be absorbed over several years to accommodate those items determined to be of high priority.

RECOMMENDATIONS

To ensure DOD and the Congress that funds are spent prudently on programs to enhance readiness and improve quality of life we recommend that the Secretary of Defense:

--Monitor programs receiving large funding increases to ensure that additional funding can be absorbed efficiently.

--Direct the military services to establish the optimum level of depot backlog in major equipment categories that will provide for economic work scheduling. In addition, require that categories of equipment be identified and prioritized according to their contribution to readiness and sustainability. Finally, require the services define to to the Congress what they mean by a zero backlog.

--Direct the military services to develop guidance and criteria for funding real property maintenance projects that contribute directly to readiness and quality of life.

CHAPTER 4

NEED FOR BETTER ACCOUNTABILITY OF OPERATIONS AND MAINTENANCE PROGRAMS

Although the Congress and DOD can monitor the progress and costs of programs funded by the investment accounts, they lack such visibility over the expenditures of Operations and Maintenance funds. Operations and Maintenance funds are channeled down to commands and then to the installation level, and commanders at both levels have considerable discretion to move funds within major accounts from mission to support functions or the reverse. In addition, Operations and Maintenance appropriations are 1-year funds which are generally obligated in the year they are appropriated. This requirement presents problems when the Congress passes appropriation and supplemental bills late in the fiscal year, because the funds may be received too late to apply them to the intended programs.

As a result, funds were sometimes reprogramed from the projects for which they were intended to other projects of lesser importance. Other funds were reprogramed because the requirements they were intended to meet did not actually exist. Both force modernization and mission funds were diverted to other programs, primarily real property maintenance. Thus, the funding for these programs substantially increased above the levels initially budgeted.

In some instances, the services did not know whether funds were being spent on the programs for which they were budgeted. Without better visibility or accountability over the use of Operations and Maintenance funds, neither DOD nor the Congress can be assured that the funds are spent prudently.

NEED FOR IMPROVED VISIBILITY AND ACCOUNTABILITY FOR BUDGET EXECUTION

A great deal of DOD's resources are spent developing data and displaying it in a convincing manner to budget oversight and appropriation committees. In fact, DOD officials at all levels have told us that budget preparation is their major focus to the detriment of program execution. Program execution is particularly hard to track in the O&M accounts.

Because operational needs change frequently and on very short notice due to sudden changes in world conditions, or due to policy changes from either executive or legislative sources, which impact operations, a certain amount of flexibility to fund operational contingencies is needed. Consequently, each service has authority to shift funds among programs within a major O&M account. This allows services to respond to unexpected needs without delay.

The specificity with which Congress appropriates O&M funds can vary. On occasion, Congress will apply certain restrictions if it has a particular interest in a program. For example, it will specify minimum expenditures in some programs such as real property maintenance or ship overhaul. However, most major O&M budget activities contain several billions of dollars each, which provides considerable spending discretion to the services.

Once funds are appropriated, the services allocate them to their major commands, which in turn allocate them to their subordinate commands. Usually at each command level a small percentage of funds are initially unallocated and held in reserve for contingencies or discretionary spending as needs arise during the budget year. In addition, authority to shift funds within major O&M budget activities is also generally delegated down through the commands.

The Department of Defense does not have an accountability system or a "feedback" loop to inform top DOD officials and the Congress the progress made on major programs financed by O&M funds. This feedback would include programs or projects such as ship operations, training exercises, depot workloads, or any other activity. These programs were funded to certain levels for specific purposes related to improving combat capability. A system is not in place to describe the major tasks that were to be accomplished, what was accomplished, and what was not accomplished and the reasons for not completing projected schedules.

There are, in many cases, good reasons for not accomplishing all missions or programs in total, including emergencies and changing priorities. But these reasons are seldom provided to the Congress in a systematic way that would provide a good story on how well DOD performed its total mission. As a result, Congress sometimes finds that major projects it has funded are not accomplished and the same projects or segments of those projects are included in subsequent Defense budgets. For example, the Navy did not live up to its "agreement" to accomplish a certain level of ship overhauls in 1980. Part of this was due to the need to finance Indian Ocean operations. Consequently, Congress included language in the fiscal year 1981 Defense Appropriation Bill that established a "floor" or the minimum amount that the Navy could spend on ship overhauls. It was felt that this requirement along with the requirement for annual authorization of the ship overhaul and repair program might provide the Congress with "...better visibility of the ship overhaul and repair program and help assure that the program is carried out, as authorized and financed..."

Because a feedback loop is not in place, commands have the freedom to spend millions of dollars for purposes different from what Congress believed they would be spent on through the justification and appropriation process. For example, this occurs when requirements which have already been funded are delayed or canceled, or when funds from supplemental appropriations are received too late in the year to obligate for their original purpose. The

funds are not necessarily returned by the commands for reallocation by higher authorities for higher service-wide or Defense-wide priorities, but are spent for other purposes which may not provide the most prudent use of funds or match priority needs. For example, in fiscal year 1981, several instances occurred where commands in Europe did not receive the equipment scheduled for them under the Army's force modernization program, and as a result the commands reproramed the funds for other uses.

ARMY FORCE MODERNIZATION FUNDS REDIRECTED TO OTHER PROGRAMS

The Army is experiencing a rapid growth in the number of new and improved weapon systems being fielded. In fiscal year 1980, the Army spent about $27 million for force modernization to support 29 systems. In 1981 the Army spent $415 million to support 42 systems, and in 1982 it plans to spend $938 million to support 133 systems. However, some of these funds are being redirected and spent on programs other than those intended by congressional committees.

In fiscal year 1981, U.S. Army Europe (USAREUR) received about $60 million for fielding new equipment and sustaining systems fielded in prior years. Funds budgeted for fielding of new equipment include initial transportation and training costs while sustainment costs include operating costs such as maintenance and fuel. Once the funds were distributed to subordinate commands, USAREUR did not monitor how the money was spent. According to a USAREUR official, USAREUR headquarters was satisfied that valid requirements existed for the funds.

We found that a major redirecting of new equipment funds occurred at the subordinate command or corps level. As shown in the following table, over half of the sustainment and new equipment fielding funds received for 1981 were used for other purposes.

	Sustainment			New Fielding		
Units	Received	Distributed	Other uses	Received	Distributed	Other uses
	(000 Omitted)					
V Corps	$10,562	$4,169	$6,393	$ 8,071	$2,314	$5,767
VII Corps	4,101	3,128	973	6,193	3,756	2,437
Total	$14,663	$7,297	$7,366	$14,264	$6,070	$8,204
Percent	100	49.8	50.2	100	42.5	57.5

The two corps had different reasons for redirecting the funds. V Corps officials stated that they did not distribute all the funds because they received the money too late in the year to effectively use it. But, USAREUR distributed the sustainment dollars during February 1981, which should have provided sufficient time to obligate funds. The new fielding funds were not distributed until April 1981, which may have made it difficult to obligate funds by the end of the fiscal year. The V Corps redirected the funds to absorb a currency revalution reduction and to fund base expansion and unfinanced REFORGER costs.

Officials from the VII Corps stated they did not distribute all the funds for new equipment because they could not identify a requirement. As a result, they redirected $3.4 million for other priorities, including $2.7 million to support base expansion. We visited several subordinate units that received funds from the corps to determine if they used the money for the purposes intended. We found that the 3d Infantry Division received $617,000 to sustain 33 systems. However, it had only 20 of the systems. The division received $298,000, or 48 percent of its new equipment funds, for the 13 systems it did not have. Also, the 3d Armored Division received $215,300 of new equipment funds for systems it did not have.

USAREUR officials were not aware that the corps and divisions were redirecting new equipment funds. Since our review, USAREUR has been directed by the Comptroller of the Army to develop and implement a system to monitor the expenditure of new equipment funds. The system had been partially implemented as of January 1, 1982, and USAREUR expected it to be fully operational by March 1982.

We believe that the Army is taking the correct action to monitor the spending of force modernization funds. However, it needs to validate existing requirements to ensure that units programed to receive such funds have, in fact, received the equipment. Unless the Army does this, there will be no assurance that funds budgeted for force modernization are not overstated and thus reprogramed for other purposes.

FUNDS REPROGRAMED TO REAL PROPERTY MAINTENANCE PROGRAMS

Overall, most funds are spent on the programs for which they were intended. However, significant amounts of funds are reprogramed to real property maintenance and other programs that can quickly absorb and obligate this funding. We believe the Congress should be aware of not only funds that are not spent on the intended programs, but also programs that exceed initial funding levels because of reprograming actions.

USAREUR funds reprogramed

USAREUR reprogramed $47 million, or 6 percent, of its mission funds to real property maintenance and base operation programs. The funds were reprogramed for basically two reasons. First, poor weather caused the reduction or cancellation of field training exercises, and the exercises could not be made up because others were scheduled throughout the year. As a result, less fuel and fewer lubricants and spare parts were needed than expected. Second, the long leadtime for spare parts adversely affected the absorption and obligation of mission funds. USAREUR officials said that spare parts normally do not arrive for 90 to 120 days after they are ordered and that funds cannot be obligated until the parts are received.

The House Appropriations Subcommittee on Defense addressed this problem in its fiscal year 1982 hearings. In the past USAREUR has been granted bypass authority to existing procedures on a case-by-case basis and allowed to obligate stock funds at the time of requisition. This made it unnecessary to reprogram funds to other areas late in the year so the money could be absorbed.

In contrast, funds for real property maintenance and bachelor housing furnishings can be obligated when the requisitions are prepared. Furthermore, both the maintenance and repair and bachelor housing furnishings accounts have large backlogs. Generally speaking, the maintenance and repair account usually has a number of projects that have already been designed and are subject to funding availability. Funds for these projects can be easily and quickly obligated once they become available. Therefore, when receipt of spare parts does not coincide with quarterly and year-end obligation targets, funds for the parts are often reprogramed to bachelor furnishings and real property maintenance.

We believe the Army should adjust its operating procedures to facilitate the obligation of funding for the purposes intended rather than encouraging reprograming to areas where funds can be quickly absorbed.

In total, USAREUR increased funding for maintenance and repair and bachelor housing furnishings by about $56 million as a result of reprograming actions, as shown below.

	Total FY 1981 USAREUR funding	Total FY 1981 obligations	Amount Reprogrammed	Reprogramed funds as percent of total obligations
	(000 Omitted)			
Maintenance and repair	$238,569	$278,984	$40,415	14.5
Bachelor housing furnishings	16,847	32,750	15,903	48.6

Some reprograming not controllable

USAREUR had difficulty obligating increased funding in fiscal year 1981 appropriated funds for morale, welfare, and recreation activities. An Office of Management and Budget procurement freeze on items used in such activities and a Government-wide hiring moratorium constrained USAREUR's ability to obligate the funds in the first half of the fiscal year. Procurement delays also prevented obligation of the funds at the end of the year. As a result, $11.8 million of morale, welfare, and recreation funds were reprogramed to the maintenance and repair account.

Tactical Air Command facility funding doubled

In fiscal year 1981, the Tactical Air Command directed that year-end funds be applied to facility projects to reduce the backlog of maintenance and repair. As a result, the command spent $72.7 million on facility projects, or more than twice the amount initially budgeted. In the past 3 fiscal years, actual spending on facility projects, excluding housing and medical facilites, exceeded the amount initially budgeted by $96.5 million. (See table below.)

Operations and Maintenance Funding of Tactical Air Command Facility Contracts

Fiscal year	Initial Funding	Funding at year-end	Increase
	(millions)		
1979	$ 4.5	$26.3	$21.8
1980	15.1	49.3	34.2
1981	32.2	72.7	40.5
	$51.8	$148.3	$96.5

In part, the command's decision to increase 1981 funding for facility projects was influenced by the timing and availability of funding. Command budget officials pointed out that, had the full level of funding been known at the start of the year, the number and scope of training exercises and deployments would have been increased. The command could have applied over $10 million of the facility spending increase to mission areas, including mobility items ($4 million), air-to-air combat training ($2.5 million), and various other mission-related items ($4.3 million).

TAC budget officials provided the following breakout to explain the increase in fiscal year 1981 funding.

Explanation	Amount (millions)
Revised allocation (Feb. 1981)	$32.3
Commander's reserve (May 1981)	4.0
Supplemental and unobligated funds (May and July 1981)	13.4
Year-end funds from Air Force (Sept. 1981)	4.2
Year-end funds from Tactical Air Command (Sept. 1981)	4.7
Base Operations and Maintenance funds	14.1
Total	$72.7

They further explained that:

--The Tactical Air Commander reserves about $10 million of Operations and Maintenance funds to distribute at his discretion.

--Supplemental and other unobligated funds came primarily from supplemental funds intended for other purposes and from lower-than-planned base obligation rates due to a moratorium on purchasing General Services Administration equipment and to the Command's decision not to obligate funds for equipment and supplies on back order.

--Year-end funds from the Air Force are thought to have resulted from aviation fuel savings and other Air Force program deferrals.

--Year-end funds from the Command came primarily from unspent balances in accounts for exercises and automatic data processing equipment.

Much of the $14.1 million of base Operations and Maintenance funding facility projects apparently came from funds which were to cover orders for vehicle parts and civil engineering supplies. As in the Army, funds are not obligated until the items are received. However, back orders are canceled at year-end to release the current-year funds. Bases may then place new orders with the next year's funds. Base funds earmarked for equipment also became available due to the moratorium on purchasing General Services Administration equipment.

CONCLUSIONS

The Department of Defense is not currently in a position to report to the Congress that the funds appropriated for all its major programs or projects are controlled and applied as intended. It lacks sufficient visibility of the extent that funds are moved from one Operations and Maintenance account to another and the effects of these shifts on readiness and sustainability.

The Army made forceful presentations to the Congress on the need for increasing its Operations and Maintenance funding to adequately field new weapons and improve its readiness position. As a result the Congress appropriated substantial funds. The Congress therefore should be assured that DOD has adequate visibility and accountability for the funds appropriated for such important programs.

Also, there appears to be a conflict in service procedures which permit funds to be obligated immediately for certain projects but not for others. We believe the services need to reevaluate this funding policy, since it appears to create an incentive for shifting funds from higher to lower priority activities.

RECOMMENDATIONS

We recommend that the Secretary of Defense:

--Require the military services to adopt a system for monitoring the use of Operations and Maintenance funds. The system should assure that the funds are applied in the programs intended and that approval for major shifts of funds above an established threshold be justified.

--Require the military services to report to the Congress on the execution of major O&M programs as part of their annual budget presentations.

--Require the military services to revise their stock fund procedures where necessary to be able to obligate funds for the purposes intended.

CHAPTER 5

NEED FOR MORE COST-EFFECTIVE METHODS OF OVERCOMING SKILL IMBALANCE PROBLEMS

In an effort to improve civilian/military pay comparability and to counter armed services recruiting and retention problems, large amounts of money were requested and approved during fiscal years 1981 and 1982. These amounts, together with the cost increases that would have occurred due to normal cost-of-living increases have raised Defense personnel and personnel-related costs significantly. These costs represent the largest expense item in the total Defense budget. For 1982, personnel and personnel-related total obligational authority is estimated at $83.0 billion, or 39.2 percent of the total budget.

Since fiscal year 1980, the cost of Defense personnel has increased $19.1 billion, a growth of about 29 percent. Of this amount approximately $3.7 billion was for pay raises--amounts above those granted to civil servants as cost of living increases. The following table illustrates the growth in Defense personnel costs from 1980 to 1982.

Appropriation	Total obligational authority FY 1980	FY 1981	FY 1982
	(billions)		
Military Personnel	$31.1	$36.7	$38.5
Retired Pay	11.9	13.7	15.0
Operations and Maintenance (note a)	21.8	24.0	25.0
Defense-wide Contingencies (note b)			5.4
Total (note c)	$64.8	$74.4	$83.9
Personnel budget as percent of obligational authority	45.6	42.2	39.2

a/ Represents estimated amount of Operations and Maintenance funds for civilian personnel pay, individual training, and other related personnel costs, excluding Civilian Health and Medical Program of the Medical Services (CHAMPUS).

b/ Includes legislated and proposed pay raises and other military personnel legislation.

c/ The Family Housing, Military Construction, Industrial Funds, and RDT&E appropriations also contain dollars for civilian personnel costs. These costs are difficult to isolate, are minimal compared with Operations and Maintenance civilian personnel costs, and are therefore not included in this analysis.

Whether pay raises are continued or whether yearly increases are limited to cost-of-living increases, the cost of Defense personnel will increase dramatically in the middle and late 1980's. This trend will be driven by current Defense plans to significantly expand the overall size of the personnel force to strengthen the military posture and to meet the personnel needs of force modernization. If current economic conditions continue, the cost of Defense personnel will escalate even more due to inflation. The question of whether the country can afford, and is willing to spend, these sums of money will be a critical issue. As a consequence, the attainment and sustainability of a fully-staffed, effective, and high-quality Armed Force will be one of the major challenges facing the Congress and the services in the 1980's and 1990's.

REASONS FOR INCREASED PERSONNEL COSTS

In requesting increases in Defense personnel spending for fiscal years 1981 and 1982, the Secretary of Defense stated that increases were needed to improve military readiness and the quality of life of service members. Specifically, he stated that additional funding was needed to restore military-civilian pay comparability and to improve the services' chances for recruiting and retaining sufficient quality personnel to fully staff the force. He emphasized this need in view of the declining pool of eligible recruits, that is, 17-to 23-year-old males and females.

Accordingly, DOD requested and the Congress approved (1) an 11.7-percent pay increase in fiscal year 1981 and (2) a 14.3-percent pay increase for fiscal year 1982. In these same years, cost-of-living increases granted to civil servants were 9.1 percent and 4.8 percent, respectively. Due to congressional insistence, however, the 14.3-percent raise was not totally across the board, but was targeted somewhat more heavily at the senior noncommissioned officer ranks. The 1982 increase alone amounted to $4.6 billion, or 48 percent, of the 1982 personnel and related cost growth.

FISCAL YEAR 1981 STAFFING IMPROVEMENTS INFLUENCED BY INCREASED SPENDING

According to the Secretary of Defense, fiscal year 1981 was one of the best recruiting and retention years, in terms of both quantity and quality, since inception of the All-Volunteer Force in 1973. As a result, each service was essentially 100-percent staffed at the end of fiscal year 1981. In meeting recruiting objectives, all the services achieved a significant improvement over fiscal year 1980 in both the number and percent of recruits who scored average or above on enlistment tests. Additionally, in the aggregate, the services recruited in fiscal year 1981 a higher percentage of high school diploma graduates than ever before. Defense indicates that this trend is continuing in fiscal year 1982 and that the Army will restrict its recruiting for the remainder of 1982 to high school graduates. This is important to all the services because high school graduates have historically been twice as likely to complete initial tours of duty as have been nongraduates.

The fiscal year 1981 reenlistment rates for all the services also improved significantly over fiscal year 1980 levels. Overall, DOD reenlistments increased about 16,700, or about 9 percent. The result was an aggregate reenlistment rate of 61 percent in fiscal year 1981, compared to about 55 percent in 1980. The reenlistment improvements were applicable to both first-term and careerists reenlistees. In the aggregate the first-term rate increased about 3.9 percentage points over 1980 rates, or about 4,700 reenlistments. Likewise, careerist reenlistments increased by about 12,000, a 10 percent increase over 1980. This increase was particularly significant because the number of careerists eligible for reenlistment in fiscal year 1981 increased by only 1,900, or 1 percent, over 1980 eligibles.

The Secretary of Defense has cited a number of reasons for the dramatic recruiting and retention improvements in fiscal year 1981. He attributes the improvements to increases in pay and the total compensation package; increased recruiting resources; a variety of training and assignment enlistment options; enhanced educational benefits; and the growing national support and appreciation for military personnel.

While these factors have undoubtedly contributed to the 1981 success, the extent to which they can be attributed as the prime factors resulting in improved recruiting and retention cannot be assessed with any degree of accuracy. A prime factor we believe the services are underestimating which has affected their achievements is the worsening civilian employment market brought on by the sagging economy. Whether the services will be able to sustain the fiscal year 1981 recruiting and retention achievements when the economy and the civilian job market improve will be a key to assessing the impact of the additional pay increases and monetary incentives.

STAFFING PROBLEMS STILL EXIST

Despite the fact that the services were essentially 100-percent staffed with some 2.1 million active duty military personnel at the end of the fiscal year 1981, they continued to complain about shortages of personnel possessing certain critical and technical skills, especially at the mid-level noncommissioned officers grades of E-5 through E-7. These shortages are significant because E-5 through E-7 is the population which contains the services needed experienced operators, maintainers, and trainers.

Because the services are 100-percent staffed, however, shortages in selected occupations and grades must necessarily be offset by surplus personnel in other occupations and grades. For example, at the end of fiscal year 1982, the Air Force expects to have its total authorization of about 193,000 E-5s through E-7s. At the same time, however, Air Force indicates it will be short about 17,000 E-5s in selected critical occupations. In addressing this shortage, the Air Force must initiate alternatives and programs which are aimed at correcting imbalances. Until imbalances are eliminated costly extraordinary initiatives such as retraining and bonuses will continue to be needed.

While staffing imbalances exist in all the services, the nature, extent, and causes of the imbalances vary from service-to-service, from grade-to-grade, and from occupation-to-occupation. Imbalances can generally though be categorized into 1 of 3 groups.

--Shortages in occupations which are highly marketable in the civilian economy.

--Shortages in occupations that are not highly marketable and are generally thought of as being unattractive.

--Overages in occupations which are relatively easy to fill.

Each service has certain skills which are quite technical in nature, require a sizable training investment, and are highly marketable in the civilian economy. For example, the Air Force's flight generating skills such as avionics, aircraft maintenance, electronics, and communications specialties are examples of shortage occupations which are highly marketable at good salaries in the civilian economy, particularly in the airline, general aviation, and electronics industries. The same is true of the Navy's nuclear technicians, operation specialists, and electronics technician. The Army has also experienced shortages of air traffic controllers and certain maintenance personnel and mechanics which are generally in demand in the civilian sector. Each service also has shortages of other skills which are not highly marketable, either because similar skills in the civilian sector do not exist and/or the skill is generally unattractive or unpleasant. For example, at the end of fiscal year 1981, the Navy was in the aggregate short about 833 boiler technicians in grades E-5 through E-7. The working environment of a boiler technician is not generally pleasant, particularly in diesel-powered ships. Likewise, the Army has experienced historical shortages in its combat arms specialties. These occupations are both dangerous and without a civilian occupation counterpart. The Army has also traditionally experienced shortages in various language and intelligence specialties.

Finally there are some skills in all the services which are relatively easy to fill and are generally overstaffed. These are skills which are usually considered to be less technical in nature and many times are related to administrative, clerical, and personnel functions. For example, the Army Behavioral Science and Psychiatric Specialists have for the last several years been overstaffed at the E-5 through E-7. The same is true of the Air Force's audiovisual production/documentation, continuous photoprocessing, and air passenger/cargo specialties.

The following charts provide examples of various occupations with staffing imbalances at enlisted grades E-5 through E-7 at the end of fiscal years 1980 and 1981. These charts show that despite the substantial 11.7 percent pay increase of 1980 and the expectation of an even larger raise in 1981, the occupations still had significant staffing imbalances. While the inventory of personnel in the shortage skills generally increased from fiscal year 1980 to 1981, significant percent shortfalls persisted. At the same time, the inventory of personnel in overstaffed occupations generally continued to increase. Thus in addressing staffing

imbalances, pay increases and other monetary initiatives could actually be counterproductive unless other management initiatives are taken. More money makes continued military service attractive not only to personnel in shortage occupations, but also in overstaffed ones. Unless other initiatives are taken to decrease the number of personnel in overstaffed occupations, imbalances, and specifically shortages, will continue to exist.

Staffing Imbalance Examples
E-5 Through E-7
Selected Military Occupations

Shortage Occupations	End of FY 1980 Auth.	Inv.	%	End of FY 1981 Auth.	Inv.	%
Avionics Specialists (AF)	2161	1802	83	2439	1871	77
Bomb-Navigation Sys. Mech. (AF)	349	250	72	329	250	76
Boiler Technician (Navy)	4902	3862	79	4909	4076	83
Electronics Technician (Navy)	10260	9264	90	10642	9740	92
Operations Specialist (Navy)	4452	2922	66	4527	3044	67
EW Intercept Systems Repairman (Army)	750	543	72	812	449	55
EW Sig. Int. Analyst (Army)	1062	660	62	1144	762	67
Overstaffed Occupations						
Air Passenger/Cargo Spec. (AF)	1554	1674	108	1630	1704	105
Continuous Photoprocessing (AF)	245	285	116	215	294	137
Missile Technician (Navy)	1206	1253	104	1142	1377	121
Religious Program Specialist (Navy)	113	161	142	217	244	112
Behavioral Science Specialist (Army)	594	698	118	630	731	116
Aircraft Structural Repairman (Army)	400	512	128	343	489	143

As we move further into the 1980s, staffing imbalances are likely to become more acute. With current emphasis on strengthening the military forces, it is estimated that the size of the forces may grow by as many as 250,000 people during the 1980s. Additionally, as the force is modernized and new technology becomes increasingly complex, not only will the demand for additional people become greater, but the services will need better educated people possessing more technical skills and abilities.

CONCLUSIONS

We believe that each service member, regardless of skill or occupation, should be afforded a standard of living comparable to that of his or her peers in the private economy and that honoring this commitment often will require across-the-board cost-of-living adjustments. Beyond this minimum, however, we believe that each skill should be managed individually and pay and benefit packages tailored to attract and keep sufficient people to perform critical jobs. In other words,

we do not see pay as an issue in and of itself to be looked at in isolation. Rather, we see pay and the rest of the compensation package as a mamangement tool to be used to achieve specific mission-related goals and requirements.

While the Office of the Secretary of Defense and the services agree that some staffing imbalances can be alleviated by modifying personnel policies and practices, as well as by paying bonuses and other targeted monetary incentives, they have consistently used across-the-board monetary actions as the major means of addressing imbalances. Their reasons for these actions range from an unwillingness to change what has been a long-standing precedent to what they believe would be the negative impact of differential pay rates on personnel morale and effectiveness.

We believe the present approach of using across-the-board pay increases to counter skill-related imbalance problems is not cost effective and will be inadequate to meet the demands of the eighties. Pursuing this course will yield extremely high costs by the 1990s. We believe the services must adopt more focused approaches in dealing with recruiting, retention, and training problems. Staffing problems must be better defined by the services, the root causes more clearly identified, and the cost effectiveness of alternatives more carefully determined and weighed.

The services must compete in the job market against industries that are looking for the same kinds of people they are trying to recruit and keep. This will mean that, increasingly, actions must be targeted to meet shortages of people with specific skills. Across-the-board pay actions may also occasionally be needed, but, more and more, the services need to manage their personnel structure and pay policies on an occupation-by-occupation basis.

MATTERS FOR CONSIDERATION BY THE CONGRESS

GAO has suggested 1/ a management-by-skill approach in the past but DOD has been reluctant to drop its across-the-board approach for addressing skill imbalance problems. The Congress may want to have DOD begin developing comprehensive management-by-skill programs that would provide the services with more flexibility in dealing with skill imbalances in selected areas.

1/--"Urgent Need for Continued Improvements in Enlisted Career Force Management" (FPCD-77-42, September 29, 1977)

--Testimony on "Military Pay Raises and Other Manpower Issues" before Subcommittee on Manpower and Personnel, Senate Committee on Armed Services, May 8, 1981

--Testimony on "The Proposed 14.3 Percent Military Pay Raise" before the Subcommittee on Defense, House Committee on Appropriations, June 1, 1981

CHAPTER 6

NEED TO INCLUDE BUDGET EXECUTION INFORMATION IN THE PLANNING, PROGRAMING, AND BUDGETING SYSTEM

The Department of Defense share of the Federal budget is growing in an environment of increasingly constrained resources. This environment places a heavy burden on the Congress and other policymakers to make sure that Defense resources are managed as carefully and cogently as possible.

An effective resource management system should be capable of doing more than cataloging changes to the 5-year defense program and establishing cyclical timetables for decision dates and products. It should disclose sufficient information to support the key trade-offs that justify major planning, program, and budget decisions. It should also contain information managers need to track and monitor expenditures in conformance with a financial plan and should show the reasons for deviations from that plan. To help managers evaluate how well DOD is achieving the purposes for which money is sought and appropriated, effective resource management should encompass an accounting system that can connect the programing structure to the budgeting structure. We recognize that no system can meet all these goals perfectly, but they are sound criteria for measuring the effectiveness of any resources management system.

DOD uses its Planning, Programing, and Budgeting System (PPBS) to allocate and manage its resources. Ideally, goals, objectives, and overall strategy for national defense are identified and defined (planning), the most cost-effective programs are designed to achieve these goals and objectives (programing), the chosen programs are priced as accurately as possible (budgeting), the resulting budget is submitted to the Congress, and financial monitoring and assessments are fed back into the system (budget execution). Of course, PPBS has never worked as smoothly as this, nor was it originally designed to include execution as we define it.

Our work to date shows that the system is unable to fully provide the information, especially concerning budget execution, that both DOD and the Congress need to effectively manage the defense budget.

Because the emphasis of this report is on budget execution, our observations are devoted primarily to that aspect of DOD's resources management system. We recognize that execution must be viewed in the context of its relationship to planning, programing, and budgeting.

PRIOR STUDIES AND EFFORTS TO IMPROVE SYSTEM

The DOD official who guided the establishment of PPBS at the Pentagon noted several major problems that PPBS sought to overcome. Twenty years later, DOD's assessment of the weaknesses of PPBS cited many of the same problems. Various other studies done in the interim have surfaced three key problems.

1. The planning phase is poorly linked to programming, and plans are ambiguous and imprecise as a guide to program design.

2. The program and budgeting phases predominant focus on the first year of the 5-year defense program obscures the future costs and affordability of today's program and budget decisions.

3. Funds are budgeted (as well as executed) in terms quite different from those in which they are programed, and no clear link between the two exists. (Programing emphasizes missions, or outputs, whereas budgets are formulated in terms of inputs --personnel, procurement, and operating expenses.)

Though budget execution is not a part of PPBS as originally conceived and implemented, it is clearly a fourth problem, as the current administration recognizes, largely because it receives little attention.

In the past year, the new administartion conducted a 30-day assessment of PPBS. As a result, DOD called for an improved planning process, one that will force the high-level dialogue needed to clearly articulate national defense policy. In a recent memo to departments and the Joint Chiefs of Staff, the Deputy Secretary of Defense directed the Under Secretary for Policy, in conjunction with Joint Chiefs and the services, to help lead the design of a new approach to planning. The memo also outlined changes in the role and membership of the Defense Resources Board, specifically adding each of the service Secretaries to the board to achieve the necessary cross-service analysis in DOD's resource decisionmaking. DOD also directed the services to be more accountable for program execution. More importantly, or course, the best planning is meaningless unless followed through.

EXECUTION: THE NEGLECTED STEPCHILD OF PPBS

Because budget execution was not defined as a formal part of the original PPBS, it receives minimal attention. Execution is primarily the responsibility of field personnel in DOD and the services. Headquarters staff spend the bulk of their time formulating and justifying the plans, eventual programs, and final budget and have little time left to worry about budget execution. An effective resource management system, however, cannot divorce execution from the rest of the budget process, because the status of execution determines future budget requests. Top DOD management recognizes that execution has been neglected in the past and more attention must be given to it if DOD is to manage its funds efficiently and effectively.

Neglect of execution has caused weaknesses in DOD's monitoring systems. The sytems in place do not effectively identify execution problems or compare program and capability plans

with accomplishments. Nor do they feed this information back through the PPBS loop to influence future programs. Thus they do not provide the link between the justification of programs and budgets and the determination of whether funds were spent for those purposes. As shown throughout this report, DOD has not had effective strategies for achieving its priority goals and does not have an effective system for determining whether the funds spent actually helped achieve those goals.

Ineffective execution monitoring

We have made a preliminary examination of some of the methods DOD uses to monitor and track program execution, including the services' accounting systems, execution reports, and program reviews or evaluations. None appears to comprehensively identify problems in budget execution or to effectively provide the feedback to planners and programmers.

The services' financial reporting and management information systems, as DOD has recognized, measure program inputs, not outputs. In other words, the systems track expenditures primarily by appropriation (such as Procurement or Operations and Maintenance) and generally by program, but not by mission. For example, DOD can account for how many dollars (input) went into the F-15 aircraft but cannot say how much additional readiness or tactical air capability (output) these dollars bought. The systems were originally designed this way in response to the information demands from the Office of Management and Budget and the Congress. Because DOD plans and justifies programs in output terms, but budgets and executes programs in input terms, the services have difficulty in measuring how well they achieve their plans and/or programs and consequently may not have the necessary information to assess their future needs.

Execution reports do not seem to highlight programs that are having trouble accomplishing their objectives. Based on the examples reviewed, the reports appear to focus almost exclusively on whether DOD's outlays and obligations are legal--that is they monitor obligation and outlay rates to prevent violation of the Antideficiency Act. The reports do monitor how well field units are following their financial plans and show any program requirements that are still unfunded, but they do not assess program accomplishments and compare them to the original program justifications.

Program evaluations or reviews are one method of making this kind of assessment and comparison. Performance reviews were established as part of the Carlucci Initiatives. However, from what we have determine thus far, DOD does not regularly conduct such comprehensive reviews for a majority of its programs. The program evaluations that are made usually concentrate on large expensive weapons systems or programs that have high congressional visibility. In the field, evaluations tend to be financial management reviews that focus on variations from planned obligation and outlay rates and the reasons for additional costs, rather than analyses of program accomplishments. Consequently, DOD may be missing some important execution problems.

Service initiatives to correct these problems

Both DOD and the services are aware of many of their problems in monitoring execution and are making some efforts to effectively review budget execution. In 1977 the Army contracted a 2-year study to determine how effective its accounting systems were in meeting the Army's financial management and external reporting requirements and to provide short- and long-term recommendations for improvement. The study concluded that the Army's systems do not provide the diversity of information needed and do not support the planning and budgeting process. Nor can Army managers use the systems efficiently to evaluate and control operations.

The study recommended that the Army develop a management structure that cuts across appropriations and provides users with Army-wide data. Such a structure should provide information on, or support the development of, additional financial detail for organizations, functions, missions, and weapon systems, as well as appropriations and programs. A followup study developed an improved Army management structure designed to yield information that supports the evaluation of budget execution in relation to stated goals and objectives. The Army is currently working on implementing this structure, and we plan to monitor this effort. Full implementation is not expected before the late 1980's.

The Air Force has an initiative at one major command to restructure its accounting system's coding scheme so that expenses will better relate to plans and program objectives. If the pilot project is successful, the Air Force plans to extend the system to other commands. This command has also adopted a new format for its execution reports that asks bases and units to identify spending, reprograming, and trade-off decisions made and the possible implications of these decisions. Such an approach can help to identify potential execution problems earlier than is now possible.

Budget practices interfering with execution

Several budget practices impede DOD's ability to efficiently execute its budget and implement its programs as planned. These practices include delayed execution, continuing resolutions and late appropriations, reprogramings, and across-the-board cuts.

The first problem is the time lag between budget formulation and implementation. Field units must execute a budget formulated some 18 months before the actual funds become available to obligate. Many of the assumptions on which that budget was formulated may no longer be valid. Also, DOD must finance such unforeseen and unplanned events as additional Airborne Warning and Control System deployments or the deployment of more ships in the Indian Ocean.

A second problem that DOD, like much of the Federal Government, has faced in recent years is continuing resolutions and late appropriations. This can complicate budget execution.

For example, this past fall, due to a continuing resolution, the Air Force had to delay some contract starts and the Navy had to postpone some advance procurement that delayed its ship overhaul schedule. Such delays can lead to higher prices and fourth quarter spending surges that may result in inefficient and uneconomical expenditures.

Late appropriations also delay apportionment, the amount of budget authority made available by OMB to DOD for obligation. This year, for example, because the fiscal year 1982 Defense appropriation was not passed until December 15, 1981, the Navy Atlantic Fleet Type Commanders did not receive apportionment figures until March, halfway through the second quarter of the fiscal year. Such delays clearly complicate execution because commands do not know the amount of their operating budgets. During the months between enactment of the budget and receipt of the apportionment figures, the type commanders implemented programs based on educated guesses, relying heavily on last year's (1981) apportionment.

Continuing resolutions and late appropriations create a third problem, an increased need for the services to reprogram dollars between programs and accounts and a resulting increased potential for mismanagement or poor accountability (see Ch. 4). The dollar thresholds, or ceiling limits, for reprogramming not only vary by appropriation account but also vary among the services for the same appropriation account and could even vary for different commands within the same service. One major Air Force command said that it had, subject to headquarters' approval, a $5 million net reprograming ceiling between major force programs in its Operations and Maintenance accounts. In other words, it could shift more than $5 million between major programs during the year as long as the net transfer at the end of the fiscal year was $5 million. In the Navy, however, the Comptroller of the Atlantic Fleet imposed an Operations and Maintenance reprograming threshold of $100,000 on its three commands. No such limit was apparently in effect for the Pacific Fleet. Such inconsistencies make execution, monitoring, and accountability very difficult.

A final budget practice that also complicates execution is the imposition of indiscriminate budget cuts on all units of a service. These broad cuts may be mandated by a service, the Congress, or the Secretary of Defense. The Navy Comptroller, for example, passed down a congressional cut in deserter apprehension funds. One naval base visited has no such function and therefore has no money in its budget for that activity. However, the base received the same cut as all other Navy organizations and therefore had no choice but to spread the cut across all its activities. On the other hand, one major Air Force command says it stops such cuts at the major command level and then consults with its bases to decide where the cuts would be appropriate.

Across-the-board cuts can have unintentional effects. When travel was cut across the board by 5 percent, one naval base was hit particularly hard. Rather than purchase vehicles, the base is required to lease them and to cover the costs of leases from its travel budget. Seventy-nine percent of its travel budget goes toward leasing vehicles. To accommodate the 5 percent cut, the base had to apply it against the remaining 21 percent used for off-site travel expenses. This meant, of course, that the portion of the travel budget actually used for travel was cut considerably more than 5 percent.

All of these budget practices can complicate DOD's ability to formulate budgets and execute programs. PPBS, because of its rigid time constraints and cyclical character, is simply not flexible enough to accommodate the effects of these practices. As our study continues, we will be trying to identify ways to increase the flexibility and responsiveness of PPBS.

CONCLUSIONS

This chapter has highlighted some major weaknesses of PPBS and has emphasized budget execution. Our study in progress is examining the other PPBS phases as well--planning, programing, and budgeting. Any improvements need to be considered in terms of the whole system to avoid unintended effects on other parts of the system. Therefore, we will be concerned with changes that better link and strengthen all aspects of PPBS.

The recommendations below are based not only on this chapter, but also the preceding report chapters. Since our study of DOD's resource management system is still underway, additional recommendations will be forthcoming when the study is completed.

RECOMMENDATIONS

We recommend that the Secretary of Defense develop methods and systems that will enable the Department to:

--Identify the results (major accomplishments) to be achieved with each level of increase to the Defense budget and over what timeframes.

--Identify to the Congress what has been accomplished to date for any major program or specific appropriation.

--Provide to the Congress, with each budget package, information on accomplishments in terms of established goals and priorities in each major program and appropriation.

CHAPTER 7

OVERALL BUDGETARY MATTERS

Investment costs are expected to continue escalating through the 1980's, but support costs will be rising even faster as new and more complex systems enter the inventory. Adding additional pressure are the personnel costs, which now account for over 30 percent of the Defense budget and are expected to increase during the 1980's.

It appears to us that Congress and DOD will have to adopt new approaches to evaluating the adequacy of future defense budgets if they are to control costs and still be assured that the money will be spent prudently to enhance military readiness. GAO is planning extensive work in the future to evaluate the distinction in service missions, the potential to cost by missions, and the effectiveness of DOD's budgeting for defense needs of the future. It is our strong impression at this point that the following issues are important and must be addressed:

--A better definition of what this spending should achieve and over what timeframes.

--More timely budget approval.

--Better accountability for the actual use of money.

One of DOD's major problems in stabilizing defense programs is predicting the level of congressional funding. Each time the Congress cuts a DOD proposed budget a number of defense programs are affected. The same for increases. DOD had trouble absorbing increases in some of its programs because they were not anticipated during much of the planning and budget process. If congressional oversight committees could provide guidance for the budget year, and several years in advance, as to minimum and maximum levels of defense spending that are realistic, this would aid defense planning. The Department could avoid planning and budgeting for new and expanded weapon procurement programs that will not be financed in the future.

Although the Defense budget has increased substantially since 1980 and substantial increases over the next 5 years are proposed, we still hear knowledgeable people saying that the Defense budget is underfunded. To clarify this, the following must be clearly defined.

--DOD's missions (i.e., joint as well as service unique missions) and their relative priority.

--The level of funding available and needed to carry out these missions.

Defining the missions is crucial to planning and managing the budget. The resources needed to carry out several scenarios are significant, but those needed to carry out several scenarios simultaneously bring considerable pressure on budget decisionmakers.

General David C. Jones, outgoing Chairman of the Joint Chiefs of Staff, recently spoke to this point, stressing the need for top military officers to spend more time developing joint strategy and fighting capabilities and less on an intramural scramble for resources. He called for a stronger role and better support for the Chairman of the JCS so that parochial interests of the individual military services do not overwhelm, as they sometimes do, a broader view of what is best for overall defense. The General pointed out that under this current system the work of the Joint Chiefs of Staff is too dispersed, diluted, and diffused to provide the best possible military advice to U.S. civilian leadership or to ensure the full capability of our combat forces. General Jones forecasted severe consequences if the military fails to come to grips with need for more imaginative, innovative advice to civilian leaders and solutions to the growing demands on U.S. forces.

Once DOD's missions are defined, the next step is to develop a strategy for achieving and maintaining the desired capability over specified timeframes. This strategy should identify which missions should receive the highest priority. Establishing priorities would help to determine the level of funding needed.

This raises another major issue. If DOD is going to be in a position to assure itself that priority programs and missions receive the necessary funding, it needs to begin to develop methods to identify costs by mission. It cannot, at this time, determine how much is being spent by specific mission. As mentioned previously, GAO intends to devote considerable time in the next few years to the two areas of (1) defining the services' specific mission responsibilities and (2) accumulating costs by those missions.

As indicated in Chapter 6, the budget is formulated in terms of appropriation--personnel, procurement, operations and maintenance, and so forth. The accounting systems do not provide costs by DOD missions. Costs for major functions such as central supply, depot maintenance, training, medical, and military personnel are not identified to missions. As a result, DOD cannot identify full costs for a specific mission unless it initiates a special study. Since two or more military services may be involved in similar missions (e.g., the Air Force's counter air mission and the Army's air defense mission) it is important that the Congress and DOD know how much it is costing each of the services to perform its missions.

Decisions have to be made as to the affordability of one or more services performing similar missions in the context of the overall strategy and the limitation on funds.

The Army is working on a system to provide additional financial detail on missions and the Air Force has an initiative at one command to restructure its system to better relate costs to plans and program objectives.

All of this should help establish a better foundation for the congressional review of each year's budget and should enhance the potential for more timely budget approval.

Continuing resolutions, which are becoming more common, are extremely disruptive. When DOD proposes the budget, it assumes funding will be available at the outset of the fiscal year and generally at a higher spending level. But continuing resolutions compel the services to reschedule activities to correspond with the comparatively restrictive guidance for operating under the resolutions. This disruption is most obvious in the operating accounts, such as Operations and Maintenance. In addition, continuing resolutions increase the congressional workload and divert attention from other issues of high priority.

Within DOD's entire planning and budgeting system, the feedback loop to the Office of the Secretary of Defense and the Congress probably needs the most attention. Part of the difficulty is simply timing. By the time the budget is actually implemented, DOD is heavily involved in preparing and defending the next year's proposal. At the Office of the Secretary level, monitoring budget execution is normally in terms of obligation rates, not what has or has not been accomplished. For example, during fiscal years 1981 and 1982, projects designed to improve the overall quality of life for service personnel received one of the highest priorities. Many projects were justified under this rationale, yet neither Defense nor the Congress could actually determine what has been accomplished without specifically asking for a report. The same can be said for readiness and sustainability and for modernization. We believe such accountability should be built into the Program, Planning, and Budget System in the form of a feedback loop. At a minimum, the feedback loop should provide sufficient detail so that the Secretary of Defense and the Congress could know what had been accomplished in relation to what had been promised. Such a system would eliminate much of the uncertainty and provide greater confidence in the Department of Defense's ability to manage its funds effectively and efficiently.

In summary, we believe:

--Congress can significantly improve DOD's execution of the budgeted funds by timely approval of budgets. Delays and continuing resolutions exacerbate what already is a most complex system. Congress should

also closely scrutinize supplementals and amendments that are requested late in the year, since many programs cannot efficiently absorb large amounts late in the year. We suggest DOD be required to show potential impacts on programs with requests for funds that are presented late in the budget year.

--To ensure that it has sufficient visibility over how the funds are actually being used, we suggest that the Congress require DOD to incorporate into its existing systems a feedback mechanism which will provide a status report on what has actually been accomplished against what was programed and financed.

APPENDIX I

OBJECTIVES, SCOPE, AND METHODOLOGY

In view of congressional concern about the large increases to the Defense budget, we organized a task force to determine:

--The major problems which DOD hopes to correct with $72 billion in increased funding.

--The validity of requirements supporting the increased funding.

--The actual distribution of the money.

--The results to date, in terms of effectiveness and efficiency, and the possible long-term impact.

--The ability of reporting systems to provide management with adequate program visibility and accountability.

We conducted this effort in accordance with GAO's current "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions." In order to provide the report to the Congress for consideration during its review of fiscal year 1983 Defense budget, we did not obtain official agency comments.

Our methodology was to discuss major defense problems and funding priorities with senior DOD officials and to determine, in effect, their game plan for using the funds. We also discussed with them overall systemic problems with their Program, Planning, and Budgetary System and the execution of the budget. During the review, we consulted with former high-level DOD officials to obtain their insight into how DOD's procedures for budgeting and executing programs could be improved.

We identified the major program increases in each of the appropriation accounts and, on a selected basis, made tests to determine whether (1) the funds were being applied as outlined by Defense officials, and (2) the policies and procedures for applying the funds were effective and efficient. Throughout our review, we made extensive use of ongoing GAO and DOD audit work to obtain a perspective on how well the monies were being spent.

Our study of DOD's resource management system, still underway, has included a review of the literature, including academic and DOD studies, the services' programing and budgeting manuals, and DOD's programing, budgeting, and execution documents. We interviewed officials in the major service organizations that make the principal programing and budgeting decisions. These officials included headquarters personnel and officials in one major operational command of each service, as well as officials of the systems or procurement command of each service. This has allowed us to move beyond the

Pentagon focus of prior studies to understand how the Planning, Programing, and Budgeting System works outside the service headquarters and the Office of the Secretary of Defense. The examples used in this report reflect these officials' observations and perceptions of the system and of budget execution. Although they are not a scientifically accurate sample, the similarity of their observations suggests that their experiences are not merely isolated examples, but indicative of problems that extend beyond their immediate offices and responsibilities. The following organizations were visited:

Office of the Secretary of Defense:

--Office of the Under Secretary of Defense for Research and Engineering

--Office of the Assistant Secretary of Defense (Manpower Reserve Affairs and Logistics)

--Office of the Assistant Secretary of Defense (Comptroller)

Army:

--U.S. Army Headquarters, Washington, D.C.

--U.S. Army Training and Doctrine Command, Ft. Monroe, VA

--U.S. Army Development and Readiness Command, Alexandria, VA

--U.S. Army Missile Command, Huntsville, AL

--U.S. Army Depot Systems Command, Chambersburg, PA

--U.S. Army Headquarters, Europe

--5th Army Corps, Europe

--7th Army Corps, Europe

--3rd Armored Division

--8th Infantry Division

--3rd Infantry Division

--U.S. Army Forces Command, Fort McPherson, GA

--Fort Eustis, Newport News, VA

--Fort Dix, Wrightston, NJ

--Corps of Engineers, Washington, DC

Navy:

--Navy Headquarters, Washington, DC

--Naval Material Command, Washington, DC

--Naval Air Systems Command, Washington, DC

--Naval Supply Systems Command, Washington, DC

--Naval Sea Systems Command, Washington, DC

--Naval Facilities Engineering Command, Washington, DC

--Naval Aviation Logistics Center, Patuxent River, MD

--Naval Air Station, Oceana, VA

--Commander, Naval Air Atlantic, Norfolk, VA

Air Force:

--Air Force Headquarters, Washington, DC

--Air Force Aeronautical Systems Division, Wright-Patterson Air Force Base, OH

--Air Force Logistics Command, Wright-Patterson Air Force Base, OH

--San Antonio Air Logistics Center, Kelly Air Force Base, TX

--Oklahoma City Air Logistics Center, Tinker Air Force Base, OK

--Tactical Air Command, Langely Air Force Base, VA

--Langley Air Force Base, VA

--Seymour-Johnson Air Force Base NC

--Directorate of Engineering and Services, Washington, DC

--Andrews Air Force Base, MD

--Bolling Air Force Base, Washington, DC

APPENDIX II

DEFENSE DEPARTMENT PROGRAMS SELECTED

Systems	More detailed review (page)
Army	
M-1 Tank	70
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C-X Aircraft	
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APPENDIX II

Funding and Quantity Profile

Program: M-1 Tank

Budget	1980		1981		1982		1983	
	Qty	$	Qty	$	Qty	$	Qty	$
				($ in millions)				
1980 FYDP	352	576.9	591	890.9	991	1,093.2	1033	1,120.9
1980 Actual	309	581.8						
1981 Carter (1/81)			360	946.3				
1981 Reagan (Actual)			569	1283.8				
1982 Carter (1/81)					569	1,043.8		
1982 Reagan (3/81)					720	1,624.0		
1982 Final					665	1,361.8		
1983 Carter (1/81)							627	1,029.7
1983 Reagan							776	1,457.0

The M-1 Tank program has been plagued by the effects of inflation and the need to make technical changes. M-1 transmission design and engine design problems have also forced some delays in deliveries. Inflation accounted for over $550 million in increased fiscal year 1981 and 1982 costs over those estimated in the 1980 FYDP. Insufficient funding (a shortfall in startup costs for the Detroit Arsenal) in previous years accounted for over $110 million in fiscal year 1982 costs between the FYDP and the Reagan administration's March 1981 proposal.

APPENDIX II

Funding and Quantity Profile

Program: Fighting Vehicles

Budget	1980		1981		1982		1983	
	Qty	$	Qty	$	Qty	$	Qty	$
				($ in millions)				
1980 FYDP	208	170.4	400	238.6	600	290.9	600	305.2
1980 Actual	100	226.4						
1981 Carter (1/81)			300	469.2				
1981 Reagan (Actual)			400	627.7				
1982 Carter (1/81)					464	693.1		
1982 Reagan (3/81)					600	809.8		
1982 Final					600	808.2		
1983 Carter (1/81)							427	652.0
1983 Reagan							600	793.3

The additional funds--increases from the 1980 FYDP in both the Carter and Reagan administrations--were necessary for the most part to offset cost growth and inflation. The Reagan administration also brought procurement quantities in fiscal years 1981 and 1982 back up to those planned in the 1980 FYDP.

APPENDIX II

Funding and Quantity Profile

Program: Copperhead Projectile

Budget	1980		1981		1982		1983	
	Qty	$	Qty	$	Qty	$	Qty	$
				($ in millions)				
1980 FYDP	4,000	66.3	7,000	128.5	10,000	122.0	10,000	97.5
1980 Actual	2,100	71.2						
1981 Carter (1/81)			4,300	122.1				
1981 Reagan (Actual)			3,125	117.6				
1982 Carter (1/81)					4,229	115.7		
1982 Reagan (3/81)					4,550	144.7		
1982 Final					4,550	141.1		
1983 Carter (1/81)							No Est.	No Est.
1983 Reagan							7,629	183.6

The significant thing to note with the Copperhead Projectile is not the variance in funding for fiscal year 1982, but the variance in the number of Copperheads the Army plans to procure with the increased funding. There has been quite an impact on unit cost growth. In fiscal year 1982 the total funding increased by about 18 percent, whereas the number of projectiles procured was reduced by over 50 percent. DOD computed unit cost as $16,575 in 1980 and at $31,802 in 1982. It appears that poor original estimates were the main drivers behind the cost increases.

APPENDIX II

Funding and Quantity Profile

Program: Patriot Missile

Budget	1980		1981		1982		1983	
	Qty	$	Qty	$	Qty	$	Qty	$
				($ in millions)				
1980 FYDP	155	426.0	184	419.8	400	496.5	641	544.7
1980 Actual	155	396.0						
1981 Carter (1/81)			130	448.7				
1981 Reagan (Actual)			130	442.3				
1982 Carter (1/81)					130	486.1		
1982 Reagan (3/81)					364	820.8		
1982 Final					176	675.6		
1983 Carter (1/81)							377	678.6
1983 Reagan							376	805.1

Drivers of the cost increases in the Patriot Missile program in fiscal years 1981 and 1982 over those planned in the 1980 FYDP are inflation costs, unrealistic original estimates, schedule and design changes. Quantity in both fiscal years (1981 and 1982) is also less than planned in the FYDP, because of the cost increases and DOD and congressionally initiated budget cuts. For more detail on this program, see page 20 in the text of this report.

Funding and Quantity Profile

Program: Truck, 5-Ton

Budget	1980 Qty	1980 $	1981 Qty	1981 $	1982 Qty	1982 $	1983 Qty	1983 $
				($ in millions)				
1980 FYDP	-0-	-0-	570	41.8	-0-	-0-	1,600	86.6
1980 Actual	-0-	-0-						
1981 Carter (3/81)			526	42.2				
1981 Reagan (Actual)			971	76.2				
1982 Carter (1/81)					1,067	98.1		
1982 Reagan (3/81)					3,372	301.7		
1982 Final					3,569	295.1		
1983 Carter (1/81)							No Est.	No Est.
1983 Reagan							4,936	392.7

The increases in funding over data presented in the 1980 FYDP for the procurement of 5-Ton Trucks are due mainly to increased emphasis by the Reagan administration to fill truck shortages in the Army. This is an example of changing priorities as administrations change. As the table shows, there were no planned purchases of 5-Ton Trucks in the 1980 FYDP for fiscal year 1982 by the Carter administration.

Funding and Quantity Profile

Program: Trident Submarine

Budget	1980 Qty	1980 $	1981 Qty	1981 $	1982 Qty	1982 $	1983 Qty	1983 $
				($ in millions)				
1980 FYDP	1	1,121.0	1	1,227.7	1	1,725.2	1	1,718.7
1980 Actual	1	1,037.8						
1981 Carter (1/81)			1	1,051.7				
1981 Reagan (Actual)			1	1,050.2				
1982 Carter (1/81)					1	1,099.0		
1982 Reagan (3/81)					1	1,060.8		
1982 Final					0	-0-		
1983 Carter (1/81)							1	1,200.2
1983 Reagan							2	2,241.1

Funding for the Trident Submarine, as can be seen in comparing 1980 FYDP data to current estimates, represents an example of where costs actually decreased in fiscal years 1981 and 1982. This was mainly because of better pricing estimates as production proceeded. Congressional pressure resulted in the deferral of the one Trident Submarine procurement planned for fiscal year 1981. The deferred submarine was then added to fiscal year 1983 planned procurement.

APPENDIX II

Funding and Quantity Profile

Program: CG-47 AEGIS Cruiser

Budget	1980 Qty	1980 $	1981 Qty	1981 $	1982 Qty	1982 $	1983 Qty	1983 $
				($ in millions)				
1980 FYDP	1	820.2	2	1,571.5	2	1,602.5	3	2,589.8
1980 Actual	1	820.2						
1981 Carter (1/81)			2	1,768.7				
1981 Reagan (Actual)			2	1,782.9				
1982 Carter (1/81)					2	2,115.7		
1982 Reagan (3/81)					3	2,925.6		
1982 Final					3	2,976.7		
1983 Carter (1/81)							2	2,088.3
1983 Reagan							3	3,112.2

Funding increased for the CG-47 AEGIS Cruiser over that planned in the 1980 FYDP for two main reasons in fiscal years 1981 and 1982

--in 1981 for needed Government-furnished equipment,

--in 1982 for the addition of a third ship and related Government-furnished equipment.

Over $400 million in 1982 additional funds went for a vertical launch system (Government-furnished equipment). Over $500 million in 1982 funds were for the third ship and specifically related to the possible second sourcing of the third ship.

APPENDIX II

Funding and Quantity Profile

Program: SSN-688 Attack Submarine

Budget	1980		1981		1982		1983	
	Qty	$	Qty	$	Qty	$	Qty	$
				($ in millions)				
1980 FYDP	1	461.5	1	450.8	1	595.9	1	673.1
1980 Actual	2	726.6						
1981 Carter (1/81)			2	824.7				
1981 Reagan (Actual)			2	802.9				
1982 Carter (1/81)					1	547.6		
1982 Reagan (3/81)					2	1,013.1		
1982 Final					2	945.1		
1983 Carter (1/81)							1	560.0
1983 Reagan							2	1,027.4

The increased funding over funding planned in the 1980 FYDP for the SSN-688 submarine, is directly attributable to the quantity increases in fiscal years 1981 and 1982, and the costs of related Government-furnished equipment. The Carter administration added one submarine in 1981 at an additional cost in excess of $350 million for the basic contract and associated equipment. In 1982 the costs attributable to the additional submarine are estimated at approximately $560 million less approximately $100 million for advance funding and reduced inflation estimates.

APPENDIX II

Funding and Quantity Profile

Program: F-18 Aircraft

Budget	1980		1981		1982		1983	
	Qty	$	Qty	$	Qty	$	Qty	$
				(in millions)				
1980 FYDP	15	661.1	48	1,215.7	96	1,660.0	108	1,661.7
1980 Actual	25	892.2						
1981 Carter (1/81)			53	1,590.1				
1981 Reagan (Actual)			60	1,681.4				
1982 Carter (1/81)					58	1,738.1		
1982 Reagan (3/81)					63	1,890.1		
1982 Final					63	1,893.1		
1983 Carter (1.81)							84	2,192.0
1983 Reagan							84	2,443.9

The Navy, in the 1980 FYDP, planned to procure a total of 144 F-18 aircraft for fiscal years 1981 and 1982. However, they actually procured 123 aircraft for that timeframe. The costs increased from $1.2 billion and $1.6 billion for fiscal years 1981 and 1982, respectively (in the 1980 FYDP) to approximately $1.7 billion and $1.9 billion, respectively, for final estimates. The main factors contributing to the increased costs to procure fewer F-18 aircraft have been higher than expected inflation rates, technical and schedule changes. For instance, for fiscal year 1981, over $170 million of the increase over the cost planned in the 1980 FYDP was directly attributable to inflation. The increased quantities over the Carter administration estimates in fiscal years 1981 and 1982 also reflect the increasing priority for this program within the current administration.

Funding and Quantity Profile

Program: Long Range Combat Aircraft (B-1)

Budget	1980 Qty	1980 $	1981 Qty	1981 $	1982 Qty	1982 $	1983 Qty	1983 $
				($ in millions)				
1980 FYDP	LRCA not in existence in Jan. 1979 (1980 FYDP)							
1980 Actual	0	-0-						
1981 Carter (1/81)			0	-0-				
1981 Reagan (Actual)			0	-0-				
1982 Carter (1/81)					0	-0-		
1982 Reagan (3/81)					0	1,632.0		
1982 Final					1	1,364.9		
1983 Carter (1/81)							0	-0-
1983 Reagan							7	3,393.1

There was no 1980 FYDP data for the Long Range Combat Aircraft (LRCA), because this aircraft was not desired by the Carter administration. Thus, the "increases" in program funds are the result of new program initiation by the current administration, or as an example of the affect changing priorities has on the growth of the procurement account. Fiscal year 1982 funds are to procure one LRCA aircraft. Not shown in the above example is $260 million and $471 million, in fiscal years 1981 and 1982, respectively, for RDT&E.

APPENDIX II

Funding and Quantity Profile

Program: F-15 Aircraft

Budget	1980 Qty	1980 $	1981 Qty	1981 $	1982 Qty	1982 $	1983 Qty	1983 $
				($ in millions)				
1980 FYDP	60	969.9	60	1,075.0	30	594.5	-0-	-0-
1980 Actual	60	897.7						
1981 Carter (1/81)			42	845.1				
1981 Reagan (Actual)			42	826.4				
1982 Carter (1/81)					30	742.7		
1982 Reagan (3/81)					42	1,101.8		
1982 Final					36	977.9		
1983 Carter (1/81)							18	530.1
1983 Reagan							42	1,296.8

The main factors contributing to the increased costs for the F-15 aircraft in fiscal year 1982 between the 1980 FYDP and current estimates are inflation, and a change in aircraft priorities between the Carter and Reagan administrations. More detail on these aspects are provided on page 22 in the text of this report.

Funding and Quality Profile

Program: Air Launched Cruise Missile

Budget	1980 Qty.	1980 $	1981 Qty.	1981 $	1982 Qty.	1982 $	1983 Qty.	1983 $
				($ in millions)				
1980 FYDP	225	364.4	480	461.3	480	446.1	480	427.7
1980 Actual	225	364.7						
1981 Carter (1/81)			480	550.7				
1981 Reagan (Actual)			480	541.3				
1982 Carter (1/81)					440	594.2		
1982 Reagan (3/81)					440	588.7		
1982 Final					440	586.4		
1983 Carter (1/81)							440	596.5
1983 Reagan							440	621.5

The price increases over those planned in the 1980 FYDP for the Air Launched Cruise Missile are due primarily to inflation and higher than estimated contractor prices (poor original estimates). This is true in both fiscal years (1981 and 1982). Air Force officials believe contractor price increases for the 1982 procurement resulted because the procurement will be sole source, rather than competitively bid. The inflation and price increases are the reasons the quantity was reduced to 440 missiles in fiscal year 1982 from the planned 480 missiles.

APPENDIX III

OPERATIONS AND MAINTENANCE

BUDGET INCREASES FY 1980 - 1982 (AS OF 3/82)

--LARGEST PROGRAM INCREASES HIGHLIGHTED

($ MILLIONS)

Program	Army FY 1980	Army FY 1982	Army Increase
(2) GENERAL PURPOSE FORCES	$ 3,647	$ 5,471	$ 1,824
Europe Forces	(573)	(971)	(398)
CONUS Forces - Forscom	(387)	(695)	(308)
Combat Development	(415)	(171)	(-244)
Base Operations	(988)	(1,333)	(345)
Real Property Maint. Activities	(1,027)	(1,852)	(825)
(3) INTELLIGENCE & COMMUNICATIONS	602	846	244
(7) CENTRAL SUPPLY & MAINTENANCE	3,576	4,541	965
Transportation	(593)	(991)	(398)
Supply Activities	(689)	(1,033)	(344)
Depot Maintenance	(790)	(1,091)	(301)
Logistics Support Activities	(619)	(395)	(-244)
(8) TRAINING, MEDICAL & OTHER PERSONNEL ACTIVITIES	2,419	3,410	991
Training Activities	(536)	(760)	(224)
Medical	(775)	(984)	(209)
Real Property Maint. Activities	(357)	(630)	(273)
(9) ADMINISTRATION & OTHER	692	927	235
(10) SUPPORT OF OTHER NATIONS	86	116	30
TOTAL O&M, ACTIVE ARMY[1/]	$11,023	$15,311	$4,288
O&M, RESERVES & NATIONAL GUARD	$ 1,280	$ 1,810	$ 530
TOTAL O&M, ARMY	$12,303	$17,121	$4,818
TOTAL BASE OPERATIONS (Active Forces)	($1,579)	($2,129)	($550)
TOTAL REAL PROP. MAINT. ACTIVITIES (Active Forces)	($1,548)	($2,710)	($1,162)

[1/] Totals may not add due to rounding.

Program	Air Force FY 1980	Air Force FY 1982	Increase
(1) STRATEGIC FORCES	$ 2,455	$ 3,193	$ 738
Strategic Aircraft	(1,136)	(3,198)	(262)
Real Property Maint. Activities	(409)	(509)	(200)
(2) GENERAL PURPOSE FORCES	2,618	3,597	979
Tactical Fighters & Weapons	(871)	(1,637)	(766)
Combat Support	(309)	(103) 1/	(-206) 1/
JCS Exercises	(133)	(33) 1/	(-100) 1/
Real Property Maint. Activities	(496)	(781)	(285)
(3) INTELLIGENCE & COMMUNICATIONS	815	1,150	335
(4) AIRLIFT FORCES	866	1,180	314
(7) CENTRAL SUPPLY & MAINTENANCE	4,100	4,891	791
Depot Maintenance	(1,801)	(2,669)	(868)
Industrial Stock Fund Support	(280)	(-286)	(-566)
(8) TRAINING, MEDICAL & OTHER PERSONNEL ACTIVITIES	1,311	1,763	452
Training	(468)	(694)	(226)
(9) ADMINISTRATION & OTHER	255	342	87
(10) SUPPORT OF OTHER NATIONS	3	8	5
TOTAL O&M, ACTIVE AIR FORCE 2/	$12,421	$16,124	$3,703
O&M, RESERVES, & NAT'L GUARD	$ 1,794	$ 2,318	$ 524
TOTAL O&M, AIR FORCE	$14,215	$18,442	$4,227
TOTAL BASE OPERATIONS (Active Forces)	($1,250)	($1,348)	($98)
TOTAL REAL PROPERTY MAINT. ACTIVITIES (Active Forces)	($1,541)	($2,205)	($664)

1/ Initially budgeted at $379 million for an increase of $246 million. $79 million was subsequently cut by Congress, and control of airlift services was transferred to the JCS budget, leaving $33 million in the Air Force budget for other support services.

2/ Totals may not add due to rounding.

APPENDIX III

Program	Navy FY 1980	Navy FY 1982	Increase
(1)STRATEGIC FORCES	$ 1,272	$ 1,438	$ 166
Ship Maintenance/Modern.	(525)	(514)	(-11)
(2)GENERAL PURPOSE FORCES	6,980	9,852	2,872
Tactical Air Forces/ASW	(898)	(1,156)	(258)
General Purpose Ship Operations	(1,462)	(2,558)	(1,096)
General Purpose Ship Maintenance & Modern.	(2,718)	(3,912)	(1,202)
JCS Exercises	(2)	(2)	(0)
(3)INTELLIGENCE & COMMUNICATIONS	578	829	251
(7)CENTRAL SUPPLY & MAINTENANCE	4,602	5,334	732
Aircraft Rework & Maintenance	(995)	(1,480)	(485)
Other Depot Maintenance	(513)	(790)	(277)
Transportation	(335)	(424)	(89)
(8)TRAINING, MEDICAL, & OTHER PERSONNEL ACTIVITIES	1,203	1,696	493
Training	(352)	(560)	(208)
(9)ADMINISTRATION & OTHER	352	439	87
TOTAL O&M, ACTIVE NAVY[1/]	$14,987	$19,589	$4,602
O&M, NAVY RESERVE	431	571	140
TOTAL O&M, NAVY	$15,418	$20,160	$4,742
TOTAL RPMA	(1,065)	(1,534)	(469)
TOTAL OTHER BASE OPERATIONS	(930)	(1,125)	(195)
TOTAL SHIP MAINTENANCE/MODERN.	(3,244)	(4,435)	(1,191)

[1/] Totals may not add due to rounding.

APPENDIX III

Program	Marine Corps FY 1980	Marine Corps FY 1982	Increase
(2)GENERAL PURPOSE FORCES	$ 485	$ 743	$ 258
(7)CENTRAL SUPPLY & MAINTENANCE	217	233	16
(8)TRAINING, MEDICAL, & OTHER	130	170	40
(9)ADMIN. & OTHER	49	59	10
TOTAL O&M, ACTIVE FORCES [1]	$ 880	$ 1,204	$ 324
MARINE CORPS RESERVE	21	40	19
TOTAL O&M, MARINE CORPS	$ 901	$ 1,244	343

	SUMMARY		
ARMY	$12,303	$17,121	$ 4,818
AIR FORCE	14,215	18,442	4,227
NAVY	15,418	20,682	5,264
MARINE CORPS	901	1,244	343
TOTAL O&M, MILITARY	$42,837	$57,489	$14,652
O&M, DEFENSE AGENCIES & MISC.	3,769	4,634	865
TOTAL, DEPT. OF DEFENSE	$46,606	$62,123	$15,517

[1] Totals may not add due to rounding.

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