AIR FORCE INSTITUTE OF TECHNOLOGY

AIR UNIVERSITY
UNITED STATES AIR FORCE

DOD PROGRAMMING SYSTEM
AN EXPLANATION AND EVALUATION

RESEARCH PAPER
GSM/SM/65-5

S. D. Hawkins   P. R. Miller   P. A. Cameron
Civilian   Major   USAF   Captain   USAF

SCHOOL OF ENGINEERING

WRIGHT-PATTERSON AIR FORCE BASE, OHIO

DOD PROGRAMMING SYSTEM

AN EXPLANATION AND EVALUATION

RESEARCH PAPER

Presented to the Faculty of the School of Engineering of

the Air Force Institute of Technology

Air University

in Partial Fulfillment of the

Requirements for the Degree of

Master of Science

By

Stewart De Witt Hawkins, B.S.
GS-15   Civilian

Paul Richard Miller, B.S.
Major   USAF

Paul Archibald Cameron, Jr., B.S.
Captain   USAF

Graduate Systems Management

August 1965

Preface

This report is an explanation of how the DoD Programming System operates and also is an evaluation of the effectiveness of this System.

The research effort was conceived originally to be an evaluation of the DoD Programming System as a management control system and its impact on the Air Force Program Directors. To fairly evaluate this aspect of the System, personal interviews were conducted in six major System Program Offices were visited in the various Divisions of AF Systems Command. These programs were: F-111, C-141, MOL, Minuteman II, 416L and 466L. Interviews were also made of personnel in Division, AF Systems Command and Hq. USAF as well as personnel in the Office of the Secretary of Defense, including Mr. Charles J. Hitch, founder of the System. During our investigations, it became apparent that there was a vast lack of knowledge of what the DoD Programming System was or what it was to do.

Our major objective became one of explaining each aspect of the System; planning, programming, and budgeting. This was done chronologically by describing past procedures and the impact of this one overlaid on the previous procedures. It should be noted that the previous procedures were not replaced. We have not intended to describe how the DoD Programming System should operate, but rather how it was intended to operate and how it actually operates. As the various facets of the System were brought into focus, several problem areas were found to exist. These areas were investigated, data collected, analyzed and

presented in Chapter V. As can be expected when new procedures are imposed on an organization as complex as the Department of Defense one could expect some difficulties to occur. Surprisingly, the System works better than any previous one, but we have concluded that in large measure it is the people at Air Staff that are resolving the inconsistencies and making it work in the Air Force.

We realize that in an evaluation of such a complex procedure as the DoD Programming System, the analyses are never as complete as would be desired. However, the conclusions and recommendations are considered to be valid since they are based on data and information obtained directly from key officials at various levels who are daily involved in program system management.

In conducting this research study, we have gained a deeper under-standing of problems and underlying issues that directly influence the effectiveness of an Air Force manager to perform his tasks. It is our hope that we have succeeded in conveying this insight to the reader.

acknowledge our appreciation for the support we received from our able typist, Mrs. Lou Ann Mulvaney and from our long-suffering wives whose encouragement and understanding enabled us to devote the attention to this subject that it deserves.

Stewart D. Hawkins

Paul Robert Miller

Paul A. Cameron, Jr.

Contents

Contents

List of Figures

List of Tables

Abstract

The DoD Programming System was introduced in 1961-62 by Secretary McNamara to integrate the planning-programming-budgeting phases of Defense decision-making. This report is an explanation of how the System operates and an evaluation of it, using as a standard basic management principles. This System provides for planning and programming to be conducted on a mission oriented basis and for the overall review of the Services programs. It is a more effective method of Defense management than was previously used. Current problems with the DoD Programming System however have caused OSD to be pre-occupied with detailed management of short- and mid-range goals to the detriment of long-range planning and general policy guidance.

DOD PROGRAMMING SYSTEM

AN EXPLANATION AND EVALUATION

I. Introduction

The initial requirement for the DoD Programming System was stated by Secretary of Defense Robert S. McNamara in his annual Department of Defense (DoD) report to the President in 1961. In this report Secretary McNamara stated:

> Unless defense planning, programming, and budgeting are all in step, we risk the waste of our national resources and might even endanger our national security. The development of procedures to meet this requirement was made one of the major objectives of the 1961 management review, and responsibility for the task was assigned to the Assistant Secretary of Defense (Comptroller).
>
> The new procedures will be keyed to the manner in which decisions are made by program in accordance with military missions. They will relate costs to weapon systems and tasks, provide the data necessary to assess properly the cost and effectiveness of alternative programs, and project the cost of both the approved and the proposed programs 5 or 6 years into the future . . . .
>
> The new procedures, based on the substantial improvements made over recent years in the financial management of the Department of Defense, will supplement, not replace, the traditional structure (Ref 54:25).

Based on this requirement, the Programming System was developed and implemented by OSD in 1962.

Purpose

The objectives of this report are to explain the DoD Programming System and to evaluate the effectiveness of the system as a management tool in the weapons acquisition process.

A comprehensive knowledge of the system and how it functions is an essential prerequisite for an effective program manager. The basic concepts and objectives are discussed in relation to each other to enable the program manager to gain this necessary understanding.

The effectiveness of the DoD Programming System is of vital concern to top managers at all levels within the Department of Defense and also to many government officials. This concern is evidenced in their many statements of praise and criticism about this System. An analyses of the attributes and deficiencies of this management system are presented in this paper.

Scope

The DoD Programming System is a very broad and complicated management system. This report highlights its interactions with the Budgetary process as it relates to the Department of the Air Force. Since studies of this nature are time limited, the following areas were specifically excluded as not significantly affecting the conclusions reached.

1. Analyses of the DoD Programming System have been confined to the internal relationships of the Government. No effort has been made towards analyzing the impact that this system has on American industry.

2. The current organization of DoD, the authority of Congress and OSD, and the concepts of systems management have not been

analyzed.

3. This study has been limited to the weapons system acquisition process within AF Systems Command, USAF and OSD. Time limitations precluded investigation of the US Army or Navy implementation of the DoD Programming System, however, findings applicable to USAF will in general be equally applicable to the other services.

4. A representative sample of key personnel at each major level were selected for interview. The opinions of those interviewed have been used in the study only where common agreement or definite trends were evidenced.

Approach

To accomplish the purposes outlined, the following approach was taken:

1. Research was conducted to determine the environment that lead to the development of the DoD Frogramming System. This information also was helpful in describing and explaining its operation. During this research, it was found that a definite gap existed between planning/programming and budgeting. Since each have different histories, these topics are discussed separately. This method of presentation will help to clarify some of the misunderstanding that exists regarding the DoD Programming System.

2. A research was made in current management literature to establish a frame of reference from which to evaluate the DoD Programming System as an effective management tool. This also was used as a point of departure from which to form interview questions.

3. Quantitative data was collected to assess the following:
   a. The degree of control exercised by OSD.
   b. The timeliness of decision-making in the Programming System.

c. The Air Force implementation of the Programming System.

4. Each of the problem areas or reported deficiencies were separately analyzed. The results of these analyses were then evaluated using the previously established management criteria.

Methodology

Research. The first phase of this study consisted of reviewing the books, periodicals and special reports available in the Wright-Patterson Air Force Base Libraries relating to both management and control. Defense Documentation Agency files were searched for reports applicable to the DoD Programming System and to Defense Budgeting. AF Instructions and OSD Directives were examined that prescribed the procedures of this System. Since RAND personnel have been closely associated with this concept from its inception a visit was made to their offices to obtain their comments and latest reports.

Since this Programming System is in the implementation phases the best and most authoritative sources proved to be special management reports and recent speeches made by key OSD personnel. Another valuable source of information were the Hearings before the Congressional Committees for Defense Appropriations and Armed Services.

Interviews. Field trips were made to talk first hand with Air Force and OSD managers who are working daily with the Programming System. Realizing that all Air Force programs could not be visited, one or two of the major programs in each of the four AF Systems Command's Divisions were selected and 26 system program office personnel were interviewed. These people were either System Program Directors (SPD) or members of his staff directly involved in the Programming System data requirements. From this management level,

4

interviews were made in progressive steps at Division, Systems Command, USAF and OSD, culminating in an interview with Assistant Secretary of Defense Charles J. Hitch, founder of the Programming System. Hence, an assessment has been made of the viewpoints of the participants at all levels of the Department of Defense. Appendix H lists the offices visited and the types of questions that were asked during the interview.

Quantitative Data. Data was selected that would also allow a quantitative evaluation of the Programming System. This information was in the form of number of Program Change Proposals (PCP's) submitted in Cys 1963 and 1964, the approval time and the time in OSD. Also dollar values of changes requested by the AF and the amounts approved by Secretary of Defense. The number of reprogrammings, their time cycle and dollar amounts, were also obtained for FY 1964 and 1965. Most of this data was obtained in the Air Staff and the Office of the Assistant Secretary of Defense (Comptroller).

Organization of Report

The management pressures and political influences leading up to the present DoD Programming System are presented in Chapter II. Since 1947, the need for an integrated DoD management approach became increasingly apparent to both the Executive Branch and Legislative leaders. The stage was set for change. In 1961, the new Secretary of Defense, Robert S. McNamara, implemented the concepts developed during the late 1950's.

In Chapter III, a description of the planning and programming of DoD resources is presented and the key link between them is discussed. The planning and programming phases are related to the annual budget

schedule. Particular attention has been given to explain those aspects of the system most frequently misunderstood. A knowledge of the current procedures which are presented in this chapter, is necessary for an adequate understanding of the DoD Programming System.

Chapter IV contains a description and explanation of the DoD annual budget procedures. This chapter is intended to lay a foundation of understanding as to how the budget system is tied to the planning-programming phases as well as the calendar. It highlights one of the major problems of the DoD Programming System, namely, the difficulty of transforming program elements into appropriation line items.

An analysis and evaluation of the planning-programming-budgeting phases of defense resources is made in Chapter V. In the first section, general management criteria is defined to provide the framework on which the analyses are based. The significant accomplishments of the DoD Programming System are presented in the second section. In the third, specific problem areas are examined. Each problem is identified and brief comments on its background are presented. An hypothesis is developed and factual data are analyzed before a conclusion is reached.

The conclusions and recommendations are presented in Chapter VI. Also included is a summary of the major accomplishments of the System and the problems remaining to be solved. Recommendations are offered as ways of improving the DoD Programming System.

Appendix A contains a glossary of many terms that have taken on unique definitions as they apply to the planning-programming-budgeting process.

II. Evolution of DoD Programming System

The planning and budgeting of the defense resources for the United
States has been performed by two distinct groups of people. The
planning was developed by the military strategists and the budgeting
established by the Administration and the Congress. The War and Navy
Departments shared the burden of these functions ever since the estab-
lishment of the Department of the Navy in 1798. Over the years, the
degree of cooperative planning between the Departments never resolved
their differing concepts of defense. Within each, the planning and
budgeting functions remained separated with little effort to relate
them.

Passage of the National Security Act of 1947 did little to change
the relationships of these functions. The Secretary of Defense now
obtained three independent plans from the Army, Navy and Air Force that
were completely unrelated to a politically acceptable budget. The
difficulties arising from this method of management is described by
Dr. A. Enthoven as follows:

It (the pre-1961 system) had several important defects,
perhaps the most important of which was the almost complete
separation between planning and decision-making on weapon
systems and forces, on the one hand, and budgeting on the
other . . . . In other words, the long-range plans for
weapon systems, forces, and all of their supporting elements
were made by the Services on the basis of their estimates of
the forces required to assure our national security.
Generally speaking, costs were not introduced systematically,

either to test the feasibility of the whole program or for purposes of evaluating the efficiency of the allocation.

Budgeting, on the other hand, had as its point of departure the guideline dollar totals laid down by the Administration and based on estimates of the burden the economy could or should bear. The result was a gap. The "required forces" always cost much more than the Administration and the Congress were willing to pay. The process by which the conflicting interests were resolved was unsystematic and wasteful because it led to unbalanced programs.

Furthermore, the Secretary of Defense did not receive adequate cost data. The budgetary system identified cost by object classes--Procurement, Military Personnel, Installations, etc.--the inputs to the Defense Department, rather than by weapon systems and forces, such as B-52 wings and Army divisions, which are the tangible outputs of the Department . . . . Moreover, cost data were presented and financial management was conducted at the Defense Department level on a year-at-a-time basis. The full time-phased costs of the proposed forces were not presented to the Secretary of Defense. Because the costs of most programs are small in their first years, this led to the starting of many programs that could not be completed at anything like existing budget levels. Although a certain amount of this is a desirable hedge against uncertainty, it is clear that there were a great many wasteful stretch-outs and cancellations of programs that would not have been started if the costs of all of the approved programs had been anticipated (Ref 36:3, 5).

The Secretary of Defense merely divided the total defense budget among the three services and allowed the expenditure to be the sole concern of each Department. There was no overview by the OSD to avoid undesirable duplication or to evaluate the array of weapons development for possible gaps in our defense posture.

This disjointed method of operation was able to function in an era
wheie weapons development changed slowly. 1ᵥ became apparent in the
early 1950's that DoD should be integrating the strategic plans of all
the Services. The joint task forces used in the South Pacific theater
during World War II were again formed during the Korean police action.
These joint operations proved their value and demonstrated the tradi-
tional military service roles were no longer independent. Similar
inter-service aspects of procurement and development were established.
Weapons and supplies procured by one service were being furnished to
the others. The benefits gained from these liaisons were effectively
eroding the inter-service barriers.

Another strong influence for improved integrated planning was ris-
ing costs incurred during the acquisition of new weapons. The technical
complexity of components and their integration into a sophisticated
system could not long permit the independent selection of these programs
for development by the services.

While the budget was controlled by OSD, the military planning was
being performed by the services. Both the planning and budget were
being prepared for submission on a yearly basis with some definition of
the future operational units visualized. The DoD budget submitted to
Congress was a combination of the three services requirements listed in
order of priority. The assembled document presented the requirements
by areas with all common items like Military Construction mixed to-
gether. This prevented the Congressional Committees from being able to
determine the adequacy of defense planning or the weapons balance
between the services.

In 1955-56, the first Joint Strategic Objective Plan (JSOP) was prepared with each service submitting their objectives to the Joint Chiefs of Staff (JCS). The JCS were to review and integrate the proposed plans and present to OSD the integrated requirements for major forces for the next five years. Since each Joint Chief resisted accepting compromises relating to his service's objectives, the JSOP, which was forwarded to the Secretary of Defense, was a compilation of each services projected desires. As a planning document, the JSOP was of little value. Its total requirements far exceeded budgetary expectations. Therefore, the submittal of the JSOP was a yearly exercise but generally ignored.

Failure to formulate unified strategic plans that could be translated into rational budgets and the successful launching of Sputnik I, resulted in legislative action. The National Security Act was amended, in 1958, based on the premise that future military engagements would involve the concentrated efforts of all services. To accomplish this, Unified Commands were created bu to counterbalance this centralization of military authority these commands were to be placed directly under a civilian leader, namely the Secretary of Defense. Further, the Secretary's responsibilities were extended to include the research and development area. A new OSD position, Director, Defense Research and Engineering was established to "direct and control" activities needing centralized management (Ref 41:184).

The intent of these 1958 amendments was emphasized by President Eisenhower:

> . . . complete unity in our strategic planning and basic
> operational direction /is a vital necessity/. It is

therefore mandatory that the initiative for this planning
and direction rest not with the separate services but
directly with the Secretary of Defense and his operational
advisors, the Joint Chiefs of Staff, assisted by such staff
organization as they deem necessary.

No military task is of greater important than the
development of strategic plans which relate our revolu-
tionary new weapons and force deployments to national
security objectives. Genuine unity is indispensable at
this starting point. No amount of subsequent coordination
can eliminate duplication or doctrinal conflicts which are
intruded into the first shaping of military programs
(Ref 26:22).

The need for change was recognized by the Air Force in the early
1950's and the RAND Corporation was encouraged to investigate the
federal planning and budgeting methods. At the same time, the Air
Force concepts of developing weapon systems underwent a change. The
acquisition effort was consolidated into a program which encompassed
far more than the procurement of components of hardware. This approach
was to ensure the placing in the field of a fully operational weapon
system and to avoid having an aircraft grounded because of insufficient
spares or proper ground equipment to maintain it (Ref 2:2-3).

The RAND studies in this area were summarized by Hitch and McKean
in The Economics of Defense in the Nuclear Age published in 1960. This
publication proposed an entirely new concept for establishing the
requirements and cost for defense. It described orderly procedures
for determining alternative means of attaining strategic objectives and
establishing the corresponding budgetary requirements. Thus, the need
for change was established, Secretary of Defense was granted the

necessary authority and the tools for accomplishing and implementing
the change had been developed.

Initial System

In January 1961, President Kennedy instructed the newly appointed
Secretary of Defense to:

1. Develop the force structure necessary to our military
   requiren. nts without regard to arbitrary budget ceilings.

2. Procure and o, 'ate this force at the lowest possible
   cost (Ref 50:4).

In carrying out these instructions Defense Secretary McNamara
defined his philosophy of management:

"I see my position here as being that of a leader, not a judge,"
he told a reporter in 1961. Again, in a 1963 television appearance, he
explained that "he thought the judicial concept of top management was
too passive. I don't believe that. My own strong belief is a manager
should be an aggressive leader, an active leader, asking questions,
suggesting alternatives, proposing objectives . . ." (Ref 45:118-9).

To actively manage DoD, the Secretary wanted the defense effort in
terms of broad missions, all weapons applicable to a specific mission
would be a program element of that program. Seven Programs were orig-
inally identified; Strategic Retaliatory Forces, Central War Defensive
Forces, Sealift-Airlift Forces, General Purpose Forces, Reserve and
Guard Forces, Research and Development and General Support.

Each of these Programs contains program elements for each of the
three services. Program I, Strategic Retaliatory Forces, for example,
includes as program elements the Air Force B-52 and the Navy POLARIS.
In this manner, the program structure could now be examined in a

mission-oriented rather than a service-oriented fashion. Each program element was costed for not only the current year but also for an additional five years and the force structure for eight years. It was with this approach that the new planning-programming-budgeting structure was started. The programming portion was designed to bridge the gap between the planning and budgeting functions. There were five major aspects to this management system, which were:

1. A program structure in terms of missions, forces, and weapon and support systems.

2. The analytical comparisons of alternatives.

3. A continually updated five-year force structure and financial program.

4. Related year-round decision-making on new programs and changes.

5. Progress-reporting to test the validity and administration of the plan (Ref 36:10).

It was envisioned that the annual budget preparation would be only an increment of a longer range plan.

The approved Five Year Force Structure and Financial Program (FYFS&FP) was the unified DoD plan, one that integrated each service's contribution to defense rather than an aggregation of separate service plans. It was anticipated that the FYFS&FP would be responsive to the political and technical changes that occurred. As these revisions or updatings were identified, the services would submit a document called the Program Change Proposal (PCP) through their Service Secretary to OSD for consideration. These PCP's were to be submitted at anytime to assure the FYFS&FP would always be current. The initial methods

were titled the Program Change Proposal System. Its procedures were
described by Secretary McNamara as follows:

> The program change procedure went into effect last July
> and, up until the time the budget estimates were submitted in
> early October, several hundred program change proposals were
> received. These program changes would have added about $40
> billion to the previously approved 1964-67 program base. The
> sizeable sums requested were by no means unexpected, inasmuch
> as we had eliminated the arbitrary budget ceilings which had
> been used prior to 1961.
>
> The program change procedure has unquestionably increased
> the workload on the Office of the Secretary of Defense, but I
> was particularly anxious that nothing should be done to dis-
> courage the military departments from submitting any program
> change they felt was necessary for the defense of the Nation.
> This was consistent with President Kennedy's instructions to
> me to: 1) Develop the force structure necessary to meet our
> military requirements without regard to arbitrary budget
> ceilings, and 2) procure and operate this force at the lowest
> possible cost.
>
> The total of the fiscal year 1964 programs and budgets
> submitted by the services and defense agencies amounted to
> $67 billion. All of the budgets were carefully reviewed
> jointly by the budget examiners of my office and the Bureau
> of the Budget, as has been the custom in the past. The
> analyses resulting from this review were forwarded to me for
> decision. In consultation with our principal advisors, Mr.
> Gilpatric and I then thoroughly reviewed all of the outstand-
> ing issues. Our decisions were transmitted to the respective
> services and, in the final step of our review, outstanding
> differences were resolved. As a result of this review, we
> were able to reduce the approximately $67 billion requested
> by the services to the total of $53.7 billion in new obliga-
> tional authority recommended in the President's budget
> (Ref 51:89).

A further discussion of the concepts and attributes of the Program
Change Proposal System were stated by Mr. Novick:

A major motivation in establishing the Program Change
Proposal System was that the cost of approved programs be
kept within the approved limits. Program decision-making
would be limited in validity if, in fact, actual costs
exceeded the levels upon which approvals had been based,
as had happened frequently in the past. Advance authoriza-
tion for any cost variances from the approved levels would
now be required. This would make it clear that, in the
Secretary's words, "a reliable cost estimate is an important
factor and that those sponsoring the system are expected to
personally assume responsibility for the accuracy of that
cost estimate" (Ref 50:38).

The Program Change Proposal System represents the first
effort by the Department of Defense to establish a general
mechanism other than the annual budget for programming,
decision-making, and control (Ref 14:1, 2). Its adoption
provided the Department of Defense with a more methodical
and systematic procedure for making major program decisions,
and has proven to be a significant contribution in the man-
agement of the Department of Defense. The system occupies
a key position in program budgeting in the Department of
Defense. Through it, additions, deletions, or modifications
to the approved five-year program can be introduced and
acted upon at any time.

The PCP system contains a number of important features
in addition to providing a means for continuously revised
programming and budgeting. It assists in maintaining at
all times an approved force and financial plan projected over
a span of five years. Where previously the traditional
budget cycle had the effect of holding up programming de-
cisions until periodic budget reviews, it was now possible
for a service's major program proposals to be prepared and
submitted for Secretary of Defense approval without regard

to the annual budget cycle. In practice, however, consider-
able accumulation still persists in order to have programs
approved and funded within the budget year. Nevertheless,
through the Program Change Proposal System and the Five-Year
Force and Financial Plan, a mechanism is provided for free-
ing program decisions from the annual budget cycles
(Ref 36:21, 22).

Recent Changes

During the first year of operation it became apparent that the
volume of PCP's was far greater than had been anticipated. The work
involved in evaluating the PCP's was also underestimated. The OSD staff
in performing their evaluation examined the costs of the alternatives
proposed and also conducted their own cost-effectiveness studies as well
In these early PCP's, the data often would be incomplete and the alter-
natives presented poorly prepared. The need for additional data as well
as the time to evaluate became a factor in the accumulation of a large
number of PCP's in OSD waiting for the decision-making process to be
completed.

There was another important factor that also affected the respon-
siveness of the process. The processing of individual PCP's as they
were received could not be handled as isolated cases since a change in
one. program element in say the Strategic Retaliatory Forces would have
an impact on other program elements. For example, PCP's on POLARIS,
Minuteman and B-52 fleet should be reviewed in context with each other.
Since PCP's were submitted on most of the program elements sometime
during the year, the assessment of individual changes would cause re-
views of the entire Program several times each year. These forces
impeded the decision-making process and caused the piling up of

PCP's. However, budget preparation could not be delayed while these reviews were being completed. Rather the need for these decisions in order to construct a meaningful budget became apparent. So instead of making decisions independent of the budget cycle, the PCP decisions were forced into phase with it. Even though some PCP's are approved during the year, an annual review of all major programs is necessary prior to the finalization of the next year's budget.

It was believed that the annual budget could quickly be prepared from the data in the FYFS&FP. But this was not practicable for two reasons. Since many decisions were being delayed, the FYFS&FP was not up to date. Also, the FYFS&FP only reflected those programs that were approved and there had to be an annual review of the entire force structure in light of the changing political and technical requirements to anticipate the introduction of new programs to keep the defense posture in proper balance. The first approach was to accept the annually submitted JSOP as the criteria for this review. But as previously mentioned, this document did not reflect the depth of thinking that OSD desired. After the Secretary's review of the JSOP he issued a Tentative Force Guidance (TFG) document. This document was to be used for costing out the next year's requirements. Each service and the JCS contributed to its preparation and had the right to reclama any guidance with which they disagree. These instructions were issued for the first time in 1962 and were published several weeks late. This late start and the process of costing and submitting of reclamas that in turn required decisions before the final budget could be assembled, inevitably delayed the budget preparation and timely submittal to the

President. Several improvements were then incorporated to reduce the hectic and frenetic effort required at the last minute.

During the processing of the annual PCP's, some of them were only required for costing of decisions already reached and were primarily of a bookkeeping nature. Therefore, a Simplified PCP was designed to reduce the effort required for these bookkeeping changes.

In addition, the quality of the JSOP was emphasized. The JCS was expected to carefully prepare a completely integrated objective plan that would reflect their best judgments of the requirements of the United States defense posture for the next five to eight years. Prior to the preparation of the JSOP, requirements studies have to be started in the fall of the previous year. The stress placed on these studies by the Secretary of Defense is reflected in his Memorandum dated 23 December 1964, to the JCS and Secretaries of the Military Departments:

> My memorandum of June 6, 1964 indicated a need for better synchronization of requirements studies with the programming cycle for 1965. It is requested, therefore, that to the extent feasible either interim or final reports on studies now in process be completed in time to be of use in preparing or reviewing JSOP-70; and that new studies be scheduled to provide timely inputs to future JSOP's and force reviews (Ref 34:1).

With the improvement in the JSOP which includes an array of alternatives, OSD can logically make decisions relative to the force structure and budget plan. Recently, several functional reviews were conducted which represented a new method of examining an area that is common to several Programs and to several services. An example is the Command, Control and Communications area. A comprehensive appraisal is made to evaluate each group or organizations occupied in one of these
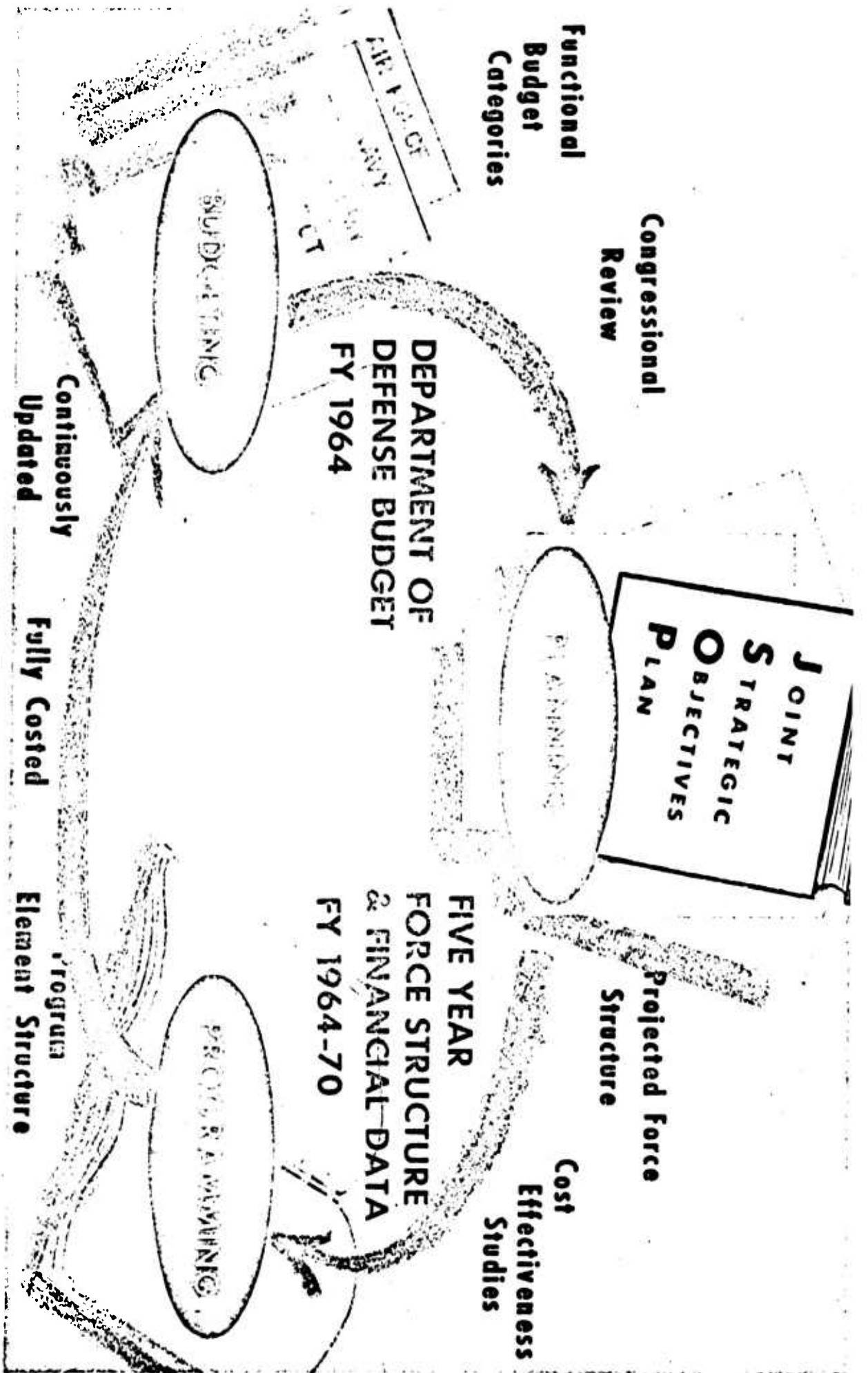
Fig. 1
INTERRELATIONSHIPS OF DoD PROGRAMING SYSTEM

related activities. Such an appraisal can assure that they are being managed in a consistant manner, identify unnecessary duplication, determine the logistic burden and critically review the research and development effort being sponsored by each of the groups. This functional review is compiled in the form of a PCP for review and approval of the recommended changes. Such reviews require approximately a year to complete. During this review period, independently generated PCP's in this area must be considered in consonance with the total appraisal and hence could be unduly delayed. In 1964, the title was changed to DoD Programming System. However, the basic concepts have not been altered but have only adjusted the System to be more responsive to real life. Considerable credit must be given to those responsible for the successful implementation of this Programming System in such a short time. Some understanding of the broad impact that this System has had can be grasped by examining Figure 1. The overall accomplishments achieved were summed by Assistant Secretary of Defense Charles J. Hitch:

> Thus, we have provided for the Secretary of Defense and his principal military and civilian advisors a system which brings together at one place and at one time all of the relevant information which they need to make sound decisions on the forward program and to control the execution of that program. And we have provided the necessary flexibility in the form of a program change control system. Now, for the first time the largest business in the world has a comprehensive Defense Department-wide plan that extends more than one year into the future. And it is a realistic and responsive one--programming not only the forces, but also the men, equipment, supplies, installations, and budget dollars required to support them. Budgets are in balance with programs, programs with force requirements, force

requirements with military missions, and military missions
with national security objectives. And the total budget
dollars required by the plan for future years do not
exceed the Secretary's responsible opinion of what is
necessary and feasible.

With this management tool at his command, the Secretary
of Defense is now in a position to carry out the responsi-
bilities assigned to him by the National Security Act, namely,
to exercise "direction, authority, and control over the
Department of Defense"--and without another major reorgani-
zation of the Defense establishment (Ref 26:53-4).

Summary

Management pressures and political influences led to the formula-
tion of a new management system in the Department of Defense. In 1961-
62, Secretary of Defense Robert S. McNamara introduced a system to
integrate the planning-programming-budgeting phases of defense decision-
making. While the basic concepts have not changed, some adjustments
were necessary:

1. Prior to the preparation of the budget an annual compre-
   hensive review of the FYFS&FP is now required aside from
   the review of program changes made on a continuous basis.

2. The annual budget is based on the JSOP and TFG rather
   than compiled from the FYFS&FP.

3. Simplified PCP's, which require less effort, have been
   implemented to handle minor changes and adjustments to
   the FYFS&FP.

4. Functional reviews are conducted to examine areas that
   may include several different Programs and Military
   Departments.

III. Planning and Programming

This chapter is divided into two main sections. The first section contains an explanation of the major planning efforts that take place within the Defense establishment. The role of planning in the Defense decision making process--planning, programming and budgeting--is discussed. In the second section the planning and programming phases are linked together and the basic procedures and processes of the Programming System are summarized.

Planning

Planning and programming are closely related subjects of the decision-making process, that differ only in emphasis. Planning is the selection of a course of action through a careful consideration of alternatives. Programming is the specific determination of the manpower, materiel, and facilities required to accomplish a plan with particular interest in the dollar requirements for meeting the manpower, materiel, and facility needs. Planning and programming, today, are constrained by a limited budget, political influences, exploding technology, and limited manpower (Ref 35:5).

Even though they do not possess the glamour of space flights, planning and programming play a vital role in the defense effort. The success of the Armed Forces may well depend on whether or not the correct amount of forces and materiel have been planned, programmed, procured, and positioned. A successful engagement may in many cases

depend primarily on having the proper equipment, in the proper
quantities, at the proper time.

Planning requires a continual review of objectives and the means
for their attainment. The preferred alternative remains preferred, only
as long as additional knowledge of program prospects in relation to
competitive systems continues to support that choice (Ref 35:12). In
this age of advancing technology, the national strategies are contin-
ually changing. Also the complex weapon systems of today may take years
to develop. The uncertainties of the planning environment in weapons
acquisition certainly require the application of concentrated effort and
attention.

The first phase of the decision-making process is military planning
and requirement determination involving the participation of all appro-
priate elements of the Defense Department in their respective areas of
responsibility. This is the phase in which the Joint Chiefs of Staff
organization and the planners in the military departments play a partic-
ularly important role.

All commands within the Air Force are required to do comprehensive
planning. The AF Systems Command, for instance, must determine the
areas of research and development they will explore. They must plan
for the radical changes taking place in technology as they develop new
weapons systems. Military personnel planners are concerned with the
changing requirements for trained personnel to operate and maintain new
weapons systems.

How then does defense planning and programming process start and
what steps are taken to reach its objectives? An estimate of the
current enemy threat and the problems we may have to face is prepared

annually by the Defense Intelligence Agency (DIA). This estimate, the Joint Intelligence Estimate for Planning (JIEP) provides a basis for developing the Joint Long-Range Strategic Study (JLRSS), the Joint Strategic Capabilities Plan (JSCP), and the Joint Strategic Objectives Plan (JSOP). These plans cover a 14 year span divided into three time periods; long-range, mid-range, and short range (Ref 4:25).

The JLRSS provides a strategic appraisal that will assist in the development of long-range guidance. This includes an appraisal of factors and trends likely to influence friendly, neutral, and enemy nations to undertake courses of action affecting the United States. It also includes military objectives, concepts, and guidance to support the attainment of national objectives and considers the general military postures and capabilities required to implement the strategic concepts. It examines probable world situations and their possible effect on the security of the United States. It contains advice on research and development matters and considers scientific and technological factors that would affect future warfare.

The JSCP is a short range plan and covers a period of one year. It lists available military forces as of 1 July and reflects reasonably attainable forces available by expansion. It translates national objectives into short range military objectives for a one year period and directs commanders of Unified and Specified Commands in the conduct of cold, limited, and general war. Strategic, logistic, and personnel guidance applicable under the different conditions of war is provided by this plan.

The JSOP is one of the more important documents in the planning and programming phases and is prepared by the Joint Chiefs of Staff

assisted by the Military Departments. It is the principle vehicle for
providing military advice on force levels and logistics to the Secretary
of Defense. It is prepared annually for submittal to the Secretary of
Defense on 1 March. The military plans and force requirements contained
in this plan are developed on the basis of broadly stated national
security policies and objectives and intelligence estimates of our
opponents' future capabilities. The total military force requirements
are directly related to the major military missions of the Defense
Department; that is, Strategic Retaliatory Forces, General Purpose
Forces, etc. These requirements are projected several years into the
future. Plans are continually being modified as old assumptions are
tested, new data integrated, alternatives examined and new choices made.

These JCS documents are, of course, not the only ones used for
military planning but they are the most important. Numerous planning
instructions are issued at other levels of command within the defense
establishment. For example, within the Air Force, guidance is provided
by the Air Force Objective Series papers (AFOS), the USAF Wartime Basic
Plan (WPB), the Mid-range Wartime Requirements Plan (WPM), and the
Short-Range Wartime Requirements Plan (WPS) (Ref 4:26-29).

This non-financial planning is related to the programming process
in financial terms by the FYFS&FP. This program projects not only the
military forces needed to meet the requirements of the long-range
military plans, but also the personnel, equipment, supplies and installa-
tions required to support them. The programming process which is used
to finalize the forces reflected in the FYFS&FP is a complicated problem
and requires the integrated management of the Department of Defense.

PROGRAMS

I STRATEGIC RETALIATORY FORCES

II CONTINENTAL AIR AND MISSILE
DEFENSE FORCES & CIVIL DEFENSE

III GENERAL PURPOSE FORCES

IV AIRLIFT AND SEALIFT

V RESERVE AND GUARD FORCES

VI RESEARCH AND DEVELOPMENT

VII GENERAL SUPPORT

VIII MILITARY ASSISTANCE

Fig. 2

Programming

The programming phase is designed to bridge the gap between military planning on one hand and the preparation of the annual budget on the other. The JSOP plays a key role in tieing the planning and programming phases together. The objectives of the Programming System are as follows (Ref 7:3):

1. Develop programs on the basis of broad military missions which cut across traditional organizational lines, rather than on the basis of unilateral plans and priorities of the Military Services.

2. Relate resource inputs, i.e., manpower, material and installations—together with their costs, to military outputs—strategic retaliatory forces, general purpose forces, and others.

3. Coordinate our long-range military planning with short range detailed budgeting by projecting our detailed programs at least five years in the future.

4. Appraise and re-evaluate all programs.

5. Control selected and approved programs through progress reporting.

6. Provide physical and financial data in forms suitable for making cost/effectiveness studies of alternative force structures.

Structure of the System. The basic structure of the Programming System is the eight military programs shown in Figure 2. These programs are broad aggregations of parts that either complement each other or are close substitutes. Logically these parts should be considered together in relation to their common mission or purpose. The basic building block and the decision-making level of the programming phase is the "program element." It is defined as: "an integrated force or activity—a combination of men, equipment and facilities

TACTICAL AIRCRAFT FORCES

F – 84	B – 57
F – 86	B – 66
F – 100	RF – 84
F – 101	RF – 101
F – 104	RF – 4
F – 105	RF – 111
F – 4	RB – 66
F – 111	KB – 50

INTERCEPTOR AIRCRAFT FORCES

| F – 89 | F – 102 |
| F – 106 | |

SURFACE -TO-SURFACE MISSILE FORCES

MATADOR

MACE

COUNTERINSURGENCY FORCES

COMMAND CONTROL COMM. & SUPPORT

Air Weapon Control System

PACOM & EUCOM ELINT Centers

Other Communications

Base Operating Support

Advanced Flying Training

Hq. & Command Support

Fig. 3

GENERAL PURPOSE FORCES - AIR FORCE

(together with their cost) whose effectiveness can be directly related to national security objectives." The Minuteman missiles together with all the supplies, equipment, manpower and bases needed to make them an effective military force, is an example of a program element. Aircraft carriers and Army divisions are also program elements. In the Research and Development program, a large project may be a program element or several related projects may be consolidated into a single program element. Each of the eight programs is then composed of program elements appropriate to its mission.

A program often contains program elements common to all the military services. For example, included in Program III, General Purpose Forces, are most of the Army and Navy combat forces, all of the Marine Corps combat forces, and the tactical units of the Air Force.

The AF General Purpose Forces are grouped in five categories: Tactical Aircraft Forces with each type listed as a separate program element; the Interceptor Aircraft Forces; the surface-to-surface missile Forces; the Counterinsurgency Forces; and the Command Control, Communications and Command units. A breakout of these groupings is shown in Figure 3.

The General Purpose Forces are the largest single program and, in many respects, the most complex. These Forces are designed to perform a wide variety of missions and are equipped with many types of weapons.

The structure of the Research and Development Program is somewhat unique. It includes all of the research and development projects not directly associated with program elements in the mission-oriented programs. Development effort associated with a system approved for production and deployment is included as part of the program element in

ENGINEERING DEVELOPMENT   ADVANCED DEVELOPMENT

RESEARCH

EXPLORATORY DEVELOPMENT   MANAGEMENT & SUPPORT

Fig. 4

RESEARCH & DEVELOPMENT

the appropriate mission-oriented program. Thus the C-5A aircraft system which has not been approved for production and deployment remains in the R&D program while the cost of further development of the POLARIS missile is included in the program element "Fleet Ballistic Missile System" of the Strategic Retaliatory Forces program since that system is already being deployed. The criterion for moving a project from the Research and Development Program to a mission-oriented program is a decision to produce and deploy the weapon system. The structure of the Research and Development Program is shown in Figure 4.

Schedule. The JSOP, submitted to the Secretary of Defense on 1 March, could be taken as the initial step in the programming cycle. Requirement studies, made by the military services, become inputs to the JSOP for proposed changes to the Force Structure. The JSOP will include proposed changes in forces supported by: 1) an explanation of the rationale for the changes; 2) the military objectives to be served; 3) a quantitative analysis of how the proposed changes will affect the ability to achieve these objectives; and 4) the resource implications of the proposed changes. If the Joint Chiefs of Staff have divergent views, the JSOP will reflect these views together with their supporting rationale. Each department costs its portion of the JSOP in terms of dollars and manpower using computer cost models and submits this data as the Logistics Guidance.

A detailed knowledge of the steps taken in this cycle is essential for understanding other parts of this report. An outline of these steps are as follows (Ref 34:1-4):

1. Logistics Guidance changes may be recommended by the services, the JCS, and the Assistant Secretaries of Lefense prior to

1 March. These proposals should include the rationale for the changes and analyses of their cost and manpower implications.

2. Requirements studies should be accomplished in time to be of use in preparing the JSOP which is to be submitted on 1 March.

3. Functional reviews, which provide a comprehensive evaluation of groups of related activities are to be submitted to the Secretary of Defense no later than 30 June. The functional areas identified for review to date are:

    a. Command, Control and Communications

    b. General Intelligence

    c. Medical Service

    d. Cryptologic Intelligence

4. Force structure changes and costs are reflected in the JSOP which is submitted no later than 1 March.

5. After review of the JSOP and the recommendations of the JCS, the Secretary of Defense will issue his tentative decisions on forces in the form of the Tentative Force Guidance (TFG). This will be issued on 1 April.

6. By 15 June the services and other DoD components will submit Program Change Proposals (PCP's) based on the TFG. Each service must submit PCP's outlining in detail the resource and cost implications regardless of their position on an OSD decision. If a service is in disagreement, a reclama in the form of comments on the first drafts of the Secretary of Defense's budget to the President (Presidential Memoranda) can be made. These comments explain the service's position and objections.

7. The first draft of the Presidential Memoranda will be based on the TFG and is transmitted to the JCS and the services for review and comment, on a phased basis from 1 June to 30 June. The JCS and military departments' comments and reclamas to the draft are due one month after the date of issue. Decisions on the comments and reclamas by the Secretary of Defense will be reflected in appropriate Formats B which are issued by

28
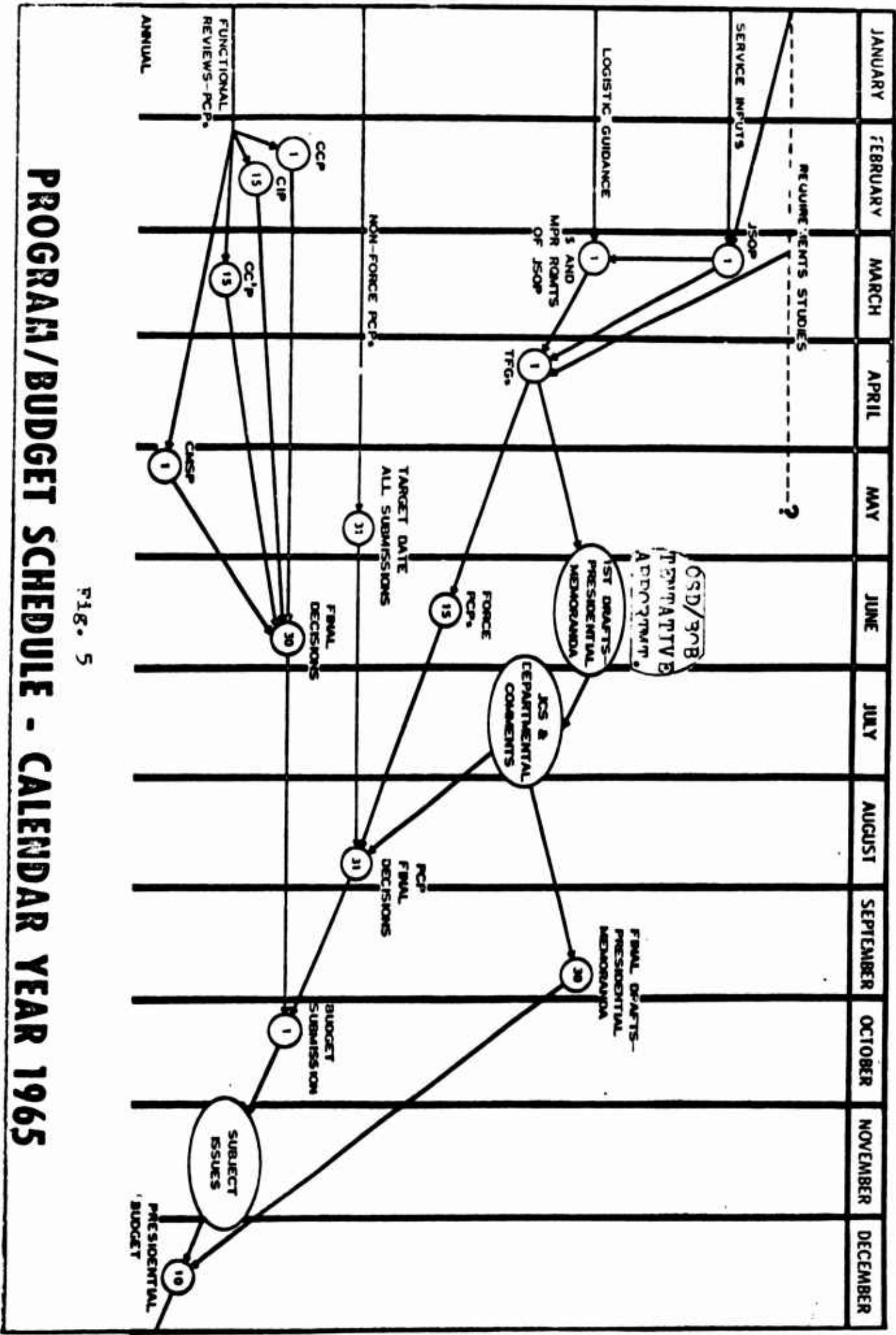
PROGRAM/BUDGET SCHEDULE - CALENDAR YEAR 1965

Fig. 5

31 August. The final draft of the Presidential Memoranda
will be completed by 30 September.

8. Non-force related PCP's are submitted as early as possible
prior to 1 June. These may include such things as new
exploratory projects and modernizations of equipment.

9. The review of all PCP's are completed and decisions are issued
by 31 August in order to allow each DoD component adequate
time for preparation of the budget for the following year.

10. The budget submissions by the services are made on 1 October
to OSD with the Presidential budget being completed by
10 December.

A time phased schedule of these activities is shown in Figure 5. The
timely submission of all documentation as established in the schedule
is a basic requirement for the success of the Programming System.

Program Control: Near Term versus Future. The separate controls
which govern the force and financial structure of programs are often
misunderstood and unrecognized. This lack of understanding was gener-
ally evidenced in interviews made with 26 persons working in six SPO's
at ASD, BSD, SSD and ESD. Most of the personnel interviewed occupy key
jobs such as System Program Director (SPD', Assistant SPD, or Deputy
for Program Control. A summary of the types of questions used in the
interviews is shown in Appendix H. The separate controls over the near-
term period as opposed to the longer period beginning with the first
program year are illustrated in Figure 6 opposite the next page. The
first program year is the first year a program is defined in the
FYFS&FP and is easily computed by adding two years to the current
calendar year. The program forces are then reflected in the FYFS&FP
for the next eight years and program costs, for the next five years.

FY | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76

CURRENT

CALENDAR YEAR 65

DOD DIRECTIVE 7250.5*

DOD DIRECTIVE 7045.1**

ACTUAL $ | EST. $ COSTS

Jan – Jun (FY 65)

Jul – Dec (FY 66)

$ | $

CALENDAR YEAR 66

Jan – Jun (FY 66)

$ | $

Jul – Dec (FY 67)

$ | $

* Near-term Period – Changes by Reprogrammings
** Program Years – Changes by PCP's

Fig. 6

PROJECTION OF THE
CHANGE IN CONTROL
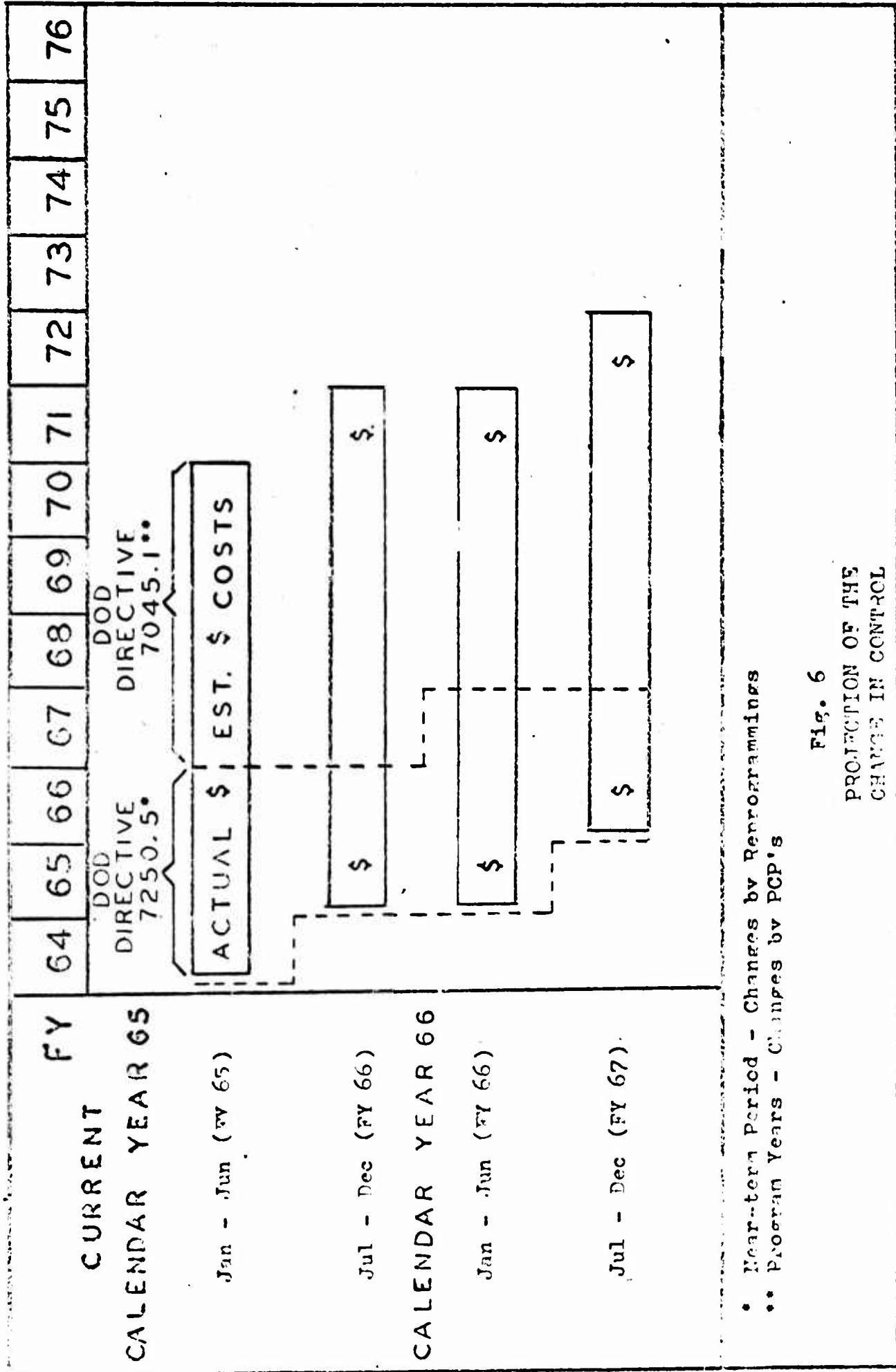
There are three program cost categories in the FYFS&FP; Research and Development, Investment and Operations. Each of these has some particular significance in the decision-making process.

The Research and Development category represents the cost of bringing a new weapon or capability to the point where it is ready for operational use. Since the cost of development alone may run into many millions of dollars, making a committment is, in itself, a major management decision.

The Investment category represents the costs beyond the development phase required to introduce a new capability into operational use. These decisions may involve outlays of many billions of dollars.

The Operations cost category contains the annual recurring costs required to operate the system. This cost may be greater than the total development and investment costs, a fact that makes estimates of operating costs critical at the time a decision is made to produce the system.

This separation of costs into R&D, investment and operations is most useful for mission analysis and force planning but does not satisfy budgetary requirements. For budget purposes, these cost categories are divided into familiar budget appropriations. This relationship of cost categories and appropriations is shown in Figure 7 opposite the next page. The R&D funds for the F-111, for example, may contain funds from Military Construction appropriation, as well as, from RDT&E appropriations.

OSD prescribes that changes to the FYFS&FP, which will affect the first program year and/or subsequent years, will be submitted as PCP actions (Ref 15:~+). Changes to the FYFS&FP which affect only the

Program Cost Categories

Budget Appropriations	Research & Development	Investment	Operations
RDT&E	X		
PROCUREMENT		X	X
MILITARY PERSONNEL			X
MILITARY CONSTRUCTION			
O & M			

Fig. 7

Platforms Research Program Appropriations—Program Cost Categories Relationship

years prior to the first program year are submitted as a reprogramming
action under DoD Directive 7250.5. For example, in calendar year 1965,
the "financial reprogramming controls" are applicable to proposed
changes which affect FY 65 and FY 66. For changes affecting FY 67 and
beyond, the PCP is the instrument used to make the proposed change.
Two exceptions to this are:

1. Requests for approval of any force change (i.e., changing
   total number of aircraft) even though it affects only the
   near-term years requires a PCP action.

2. Requests for approval of any program change which affects
   both the near-term years and the program years, exceeding
   certain DoD dollar thresholds in the latter, must also be
   covered by a PCP (Ref 28:1-2).

Program Change Proposals (PCP). The FYFS&FP is the official pro-
gram for the Department of Defense. The approved FYFS&FP is the base
for submissions of proposed changes. The basic document used in re-
questing a change to the approved FYFS&FP is the PCP. It is submitted
by the services or other DoD components when they feel a justifiable
need for a change in the approved programs exists, or a new program is
to be added. The PCP must convince the Secretary of Defense of the
need to change the presently approved program. The basic format
(DD Form 1355) for the PCP was devised by the OSD staff and is made up
of seven pages and submitted to OSD in 30 copies. Appendix B shows the
format used. DoD Directive 7045.1 and DoD Instruction 7045.2 establish
the detailed procedures for preparing and submitting PCP's to OSD.

There are two different types of changes that can be made: the
research and development (R&D) changes and the changes in forces,
investment and operations. The R&D changes provides the basic data to

assist the Secretary of Defense in deciding upon proposed changes or
new programs in the R&D Program. They include a description of ulti-
mate program objectives and cost impact. The forces, investment and
operations changes cover all other proposals beyond the R&D stage.
Beside containing the data on R&D costs, they also include procurement
and delivery schedules, proposed source of funds, manpower requirements
and effects on other programs. These proposed changes provide a basis
for competition for forces between the services on a cost basis as well
as on an effectiveness basis (Ref 13:10-13).

The Programming System was designed to allow for the continuous
submission of PCP's in accordance with program requirements. However,
those proposals which have an impact on the next submission of the
budget estimates will be processed in accordance with the program review
schedule as shown in Figure 5, facing page 29 (Ref 16:2). The impact of
this established review schedule on the actual submission and processing
of PCP's will be analyzed in Chapter V.

The policies controlling the administration of the Programming
System within the Air Staff is Hq. USAF HOI 27-1. This instruction
establishes a uniform approach and guidance to the Air Staff on prepara-
tion and processing of the PCP. AFR 27-9 gives general guidance to AF
Systems Command in the preparation of back-up data required to support
a PCP. Most of the back-up data for the PCP is furnished in the form
of: Development Plans (DP), Proposed Technical Development Plans
(PTDP), Proposed System Package Plans (PSPP), and System Package Plans
(SPP).

Due to the lack of complete information and guidance available at
lower echelons, a complete PCP can only be prepared at Air Staff level

for signature by the Secretary of the Air Force. A request for change
is formally submitted in the following ways (Ref 16:2):

1. A PCP changing a program element.

   For example, if the TFG directs an increase in the number of
   C-141 aircraft, the Air Force must outline in detail the
   acquisition plans to build-up the force and explain the
   changes by fiscal years. The PCP must include the manpower
   and support requirements needed to operate the additional
   aircraft as well as those previously approved, the costs and
   time needed for the construction and R&D programs needed to
   support this increase. Also the total effect of this change
   upon other program elements must be reflected. In this case,
   a change in the aircraft force would also change many of the
   Base Operating Support program elements.

2. A PCP changing several program elements.

   The modernization of our mission support fleet by say the
   T-39 aircraft involves many program elements. Justification
   of this change would require the total effect and costs and
   how they are spread among the various program elements.
   These PCP's are often referred to as Item PCP's.

3. A package of related PCP's changing one program element.

   This type of PCP's has been encouraged by OSD to afford them
   a more comprehensive view of all the related items within a
   program element.

PCP Processing. Standard times for processing/review have been
established and followed carefully at some levels but not at others.
The preparation time of documentation varies with the complexity of the
program and obviously no standard time can be established for this
phase which takes place mainly at the SPO level. AF Systems Command
has established a processing/review time of PCP's within its Headquar-
ters of 15 days (Ref 39:4). Hq. USAF has established a processing

	FIRST PROGRAM YEAR	TOTAL PROGRAM COST/QUANTITY
1. TOTAL OBLIGATIONAL AUTHORITY(TOA)		
A. DoD COMPONENT TOTAL	ANY INCREASE	ANY INCREASE IN ANY FISCAL YEAR
B. RESEARCH AND DEVELOPMENT		
1. NEW PROGRAM ELEMENTS IN PROGRAM VI	ANY	ANY
2. CHANGES TO PROGRAM ELEMENTS	$10 MIL	$25 MIL
C. INVESTMENT		
1. NEW ITEMS OR PROJECTS, OR CHANGES TO ITEMS OR PROJECTS IN:		
a. MATERIEL ANNEX	$10 MIL	$25 MIL
b. CONSTRUCTION ANNEX	$ 5 MIL	$ 5 MIL
2. CHANGES TO PROGRAM ELEMENTS	$10 MIL	$25 MIL
D. OPERATING COSTS		
1. PROGRAM ELEMENTS	$20 MIL	$50 MIL
11. MANPOWER		
CHANGES IN TOTAL YEAR-END MILITARY OR CIVILIAN MANPOWER SPACES AUTHORIZED FOR A DoD COMPONENT	ANY INCREASE	ANY INCREASE ANY FISCAL YEAR
111. FORCES		
CHANGES IN FORCES CONTAINED IN THE LATEST APPROVED FYFS&FP	ANY	

Fig. 8

DoD PROGRAM CHANGE THRESHOLDS

schedule for PCP's within the Air Staff. Examples of Air Staff
schedules used in processing the different types of PCP's are shown in
Appendix C. No standard times have formally been established within
OSD. An analysis of the actual PCP processing times is presented in
Chapter V.

Simplified PCP's. ^SD has reduced the workload required for pro-
cessing/reviewing certain PCP's by establishing a simplified category.
These include PCP's where no new decisions have been made by the
Secretary of Defense but some bookkeeping adjustments are necessary in
FYFS&FP, and where a decision by the Secretary is made outside the
Programming System through Memoranda. Air Force PCP's of this type are
normally prepared by the Air Staff without the usual detail and review.
The simplified PCP has been useful in reducing unnecessary workload
within DoD components and OSD. The Air Staff schedule for processing
these changes are shown in Appendix C.

PCP Thresholds. The "Thresholds" establishes the limitations
beyond which OSD retains the decision authority. Approval by the
Secretary of Defense is required for any change in a fiscal year above
these thresholds. The Military Departments retain approval authority
when changes are below these limits. These controls are generally
expressed in terms of dollar costs, however, other means of measure are
used for some items, i.e., manpower. They apply to the first program
year and the years beyond with certain exceptions. They apply to force
structure changes in any year, either the current and budget years or
the years beyond. In addition, the thresholds apply to any changes in
the current and budget years which would cause threshold breaks in the
years beyond (Ref 15:6). A chart of the thresholds is shown in Figure 8

All of the below threshold changes, allowed a service by OSD, must be made within the Total Obligational Authority (TOA) funds that have been approved for that service in the FYFS&FP. Any increases to the approved FYFS&FP, of course, requires the approval of the Secretary of Defense. Within the thresholds a service may, however, juggle some dollars and manpower between program elements. For instance, the Air Force operational and maintenance dollars as well as investment dollars can be shifted among program elements provided the thresholds are not exceeded. It is evident that any significant program changes require approval by the Secretary of Defense.

The reprogramming or shifting of money, manpower, etc., is complicated by different thresholds established for the current or budget year. These controls restrict reprogramming by appropriation/budget activity rather than by programs and are a result of Congressional pressures. These controls are in addition to the thresholds established for PCP's and the resulting duplication has not been resolved. A more detailed discussion of the reprogramming in the current and budget years is presented in the next chapter.

OSD Decisions and Their Implementations. The Format A is used by reviewing DoD components to present their evaluations and recommendations on PCP's forwarded to the Secretary of Defense. Each service is presented the opportunity of reviewing proposals made by other services or components within DoD and stating their position. A consolidated Format A will be prepared by an office of primary responsibility in OSD and will be forwarded to the Secretary of Defense along with the PCP. A copy of the Format A can be found in Appendix D.

The Format B (see Appendix E) is used for transmitting decisions by the Secretary of Defense on PCP's. It is the basis for implementing the Secretary's program decisions. The decision may differ considerably from the original PCP. To assure a clear understanding of the decision, the Format B contains various tables to show the effects on forces, costs, manpower, and materiel quantities, as applicable. It provides an evaluation of alternative solutions, if applicable. It shows the effects if any, on other program elements in terms of manpower, costs and quantity. Hence, it is a detailed set of instructions to be implemented by the submitting agency and not a yes or no statement (Ref 16:33).

On receipt of a Format B, the head of an implementing agency can submit a reclama within ten days if he disagrees with the decision of the Secretary of Defense. These reclamas are processed in the same manner as PCP's and decisions on them are accomplished by Formats B. Approval of a PCP does not constitute authority to commit or obligate funds. Neither does it constitute authority to increase year-end military and civilian manpower authorizations unless specifically stated (Ref 15:11).

In order to reflect the programs approved by the Secretary of Defense in the FYFS&FP, each implementing DoD component is required to prepare and submit a summary of their approved programs. These approved programs will be reflected in the form of Program Element Summary Data Sheets (Format C), Descriptive Data Sheets (Format D), Materiel Annexes (Format F), and Materiel Item Acceptance Report (Format G). Data from these formats are entered in the FYFS&FP.

Updating and Progress Reporting. The FYFS&FP is updated on a scheduled basis by each agency such as the Air Force to reflect any changes to the program that have been made by them or by OSD. In addition to updating programs, progress reports including cost, schedule and performance data are required by OSD on selected program elements or projects within elements. These reports assess the status and forecast the progress of the selected programs in quantitative and financial terms (Ref 15:10).

To provide a rapid means of obtaining data from the FYFS&FP, OSD has established a requirement for the submission of data contained in Formats C through G in machine readable form. This data, which is prepared on magnetic tape, reflects all new changes in programs. The current status of all programs is issued to the respective Military Departments after each updating is completed (Ref 17:3). The printout from a machine run is called the "ten pound book." It provides a program summary and a program budget in one package for the entire DoD. The Air Force portion of the FYFS&FP is also reflected in the USAF Force and Financial Program (F&FP), which is only a more detailed version of their approved programs.

Summary

Planning is the first phase of the decision-making process in the Defense establish ent and the key participants are the Joint Chiefs of Staff as the planners of the Military Departments. The programming phase is designed to "bridge the gap" between military planning on the one hand and preparation of the annual budget on the other. The JSOP plays a major role in tieing the planning and programming phases

together. Eight military programs, each with a common mission or
purpose form the basic structure of the DoD Programming System. The
FYFS&FP is the official program of the Department of Defense and the
PCP is the basic document used to change it. Certain "thresholds" have
been established beyond which OSD retains decision authority on proposed
changes to the FYFS&FP.

IV. Budgeting

The function of the DoD Programming System is to integrate the phases of decision-making: planning, programming and budgeting. The planning and programming phases have already been discussed. The budgeting function will now be described and discussed with particular emphasis on those aspects pertaining to the acquisition of weaponry in the Air Force. The major topics covered will be its history, structure, budget cycle, and control of appropriated funds.

History

Budgeting involves a projection of the activity of an enterprise in terms of expenses, revenues, assets and equities over a specified period of time in the future, usually one year (Ref 6:443). Like most other human created activities, it has undergone the process of evolution. As knowledge has been gained, necessary changes have been made in the process to keep pace with the changing times.

Budgeting Function. Prior to 1921, government budgets were prepared by various executive departments and compiled into a "book of estimates" by the Treasury. The President was totally excluded from the budgeting process. In fact, no central agency exercised management control or coordinated the total effort resulting in a weak budgeting system.

Budgeting, as known today, was started by the Budgeting and Accounting Act of 1921. To overcome its weaknesses many important

changes in the process were made:

1. Placed budgeting responsibility with the President.

2. Required the President to submit to Congress a plan for raising revenue.

3. Established the Bureau of the Budget (BOB) in the Treasury as a central agency.

4. Prohibited Federal agencies from going direct to Congress except when called.

5. Established the Comptroller General and the General Accounting Office (GAO) as "Watchdog of the Treasury."

6. Directed each Department to designate a budget officer.

An important change occurred with the transfer of BOB from the Treasury to the Executive Office giving the President direct control over the budgeting process. This change was made under authority of the Reorganization Act of 1939.

Further change in the budget process was recommended by the "Hoover Commission" of 1947. These recommendations resulted in two lesislative acts. The National Security Act Amendments of 1949 created Comptrollers in OSD and the military departments, and called for functional type budgets. The Budget and Accounting Act of 1950, revised the budget and accounting procedures (Ref 1:1-3).

The history of the budgeting function alone does not furnish the complete story of budgeting. It is essential of review the historical background of the budget structure within the services to better understand how the entire process has evolved.

Budgeting Structure. The War and Navy Departments, over the course of some 150 years, each developed in its own way its own pattern of organization, budgeting, and administration. In each of the departments

there was no particular logic to any basic budget structure and system of accounting. Although the major congressional appropriations, in general, paralleled the organization of each department, they did not follow any particular functional pattern. Furthermore, there were a great number of appropriation accounts for minor and often obscure purposes, the original justification for which had long since been lost in 150 years of history. For example, the Navy Department, as late as fiscal year 1948 was still managing its affairs through some 130 separate appropriation accounts, and the Congress for that fiscal year had actually appropriated new funds for 87 of them. These appropriation accounts ranged in size from fifty dollars for the payment of certain claims to $1,294 billions for pay and subsistence of Navy personnel. The situation in the other departments was no better.

When it is realized that each of these appropriation accounts had to be separately administered and accounted for, and that no funds could be transferred from one account to another unless specifically authorized by Congress, the problem which confronted the first Secretary of Defense in 1947 is apparent. It would have been virtually impossible for him to manage the DoD as a single entity, especially if a different set of appropriations were created for the new Department of the Air Force. Accordingly, the first Secretary of Defense, James S. Forrestal, decided to develop an entirely new, and uniform budget structure for the services. From these early efforts it has taken about 10 years to evolve today's major appropriation accounts which will be described in the following section (Ref 26:90-91).

Present Budget Structure. Currently, the DoD budget is submitted
to Congress broken out into major appropriation titles as follows:

Military Personnel
Operations and Maintenance
Procurement
Research, Development, Test and Evaluation
Military Construction
Family Housing
Civil Defense
Military Assistance.

These major appropriation titles are further subdivided. For example,
the appropriation titled, Procurement, is classified as:

Procurement of Equipment and Missiles, Army
Procurement of Aircraft and Missiles, Navy
Shipbuilding and Conversion, Navy
Procurement, Marine Corps
Aircraft Procurement, Air Force
Missile Procurement, Air Force
Other Procurement, Air Force
Procurement, Defense agencies.

For accounting purposes these appropriation subdivisions are
assigned fund codes and lower division accounting codes. Further
division is made into budget program activities or budget projects.
These budget program activities or budget projects are again shredded
out into a work breakdown structure/material program, with the lowest
or fifth level being a line item. A line item is "a complete descrip-
tion entry regarding an item or number of like items on any form,
record, or other document, including quantity, unit of issue, stock or
part number, and description" (Ref 25:301). To be included in the
budget the estimated value of a line item must exceed $500,000

Fig. 9
PROGRAM STRUCTURE
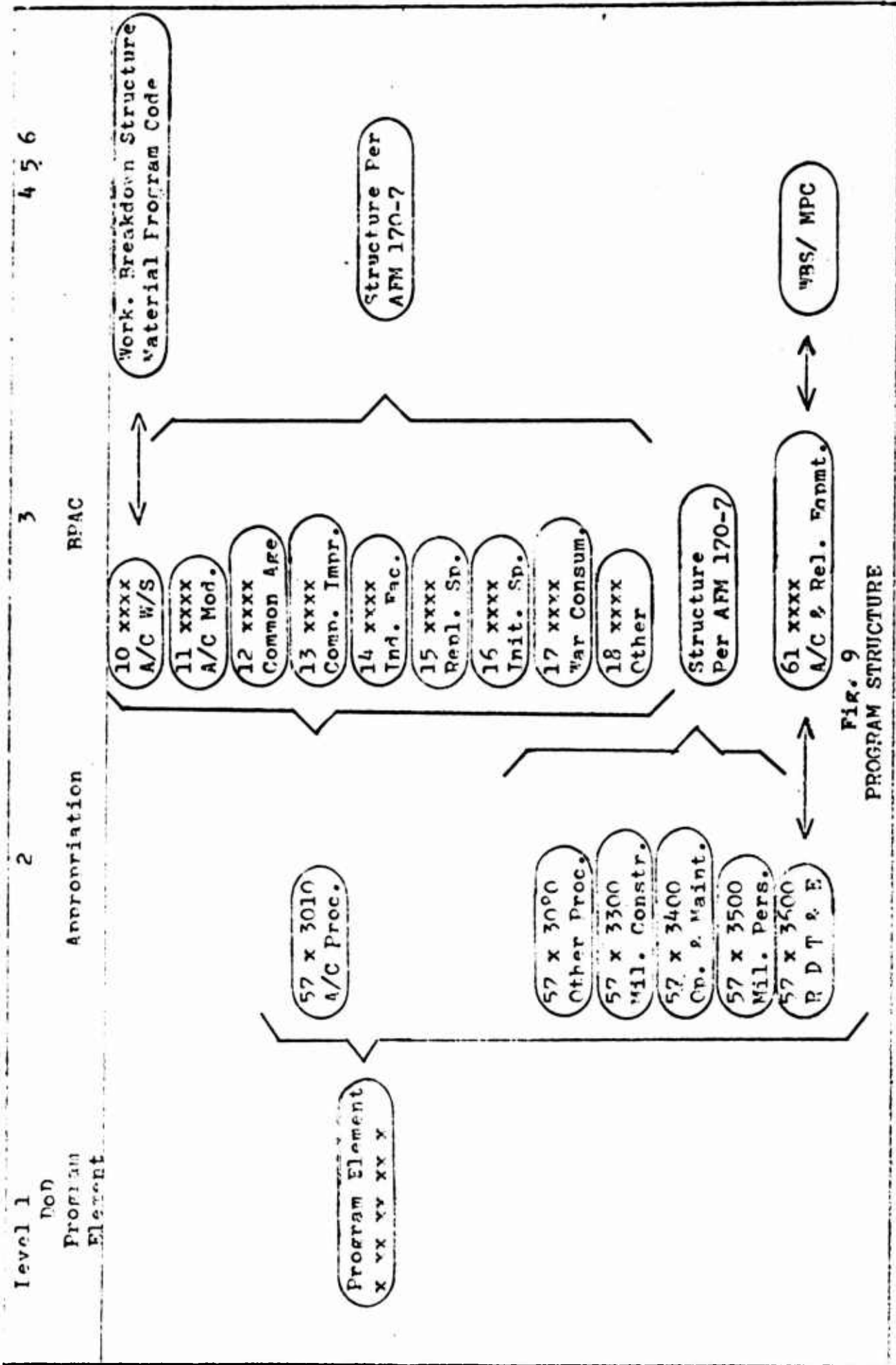
(Ref 21:2). A line item is distinctly different from the program element in the FYFS&FP. For example, a program element, such as the B-52 weapon system is made up of many line items, as shown in Figure 9. This breakdown of the budget portrays the budgeting structure in its conventional sense. As Mr. Charles J. Hitch has pointed in a lecture at the University of California in April 1965 (Ref 26:38-39):

> This type of structure lends itself ideally to the manner in which the Defense Department actually manages its resources. While military planning and the formulation of programs should logically be done in terms of missions and forces, the Department must be managed not only in those terms but also in terms of resources. For example, we have to manage the acquisition, training and careers of military personnel; the operation of bases and facilities; the procurement of aircraft, missiles, ships, and tanks; the research and development program; and the construction of airfields, missile sites, quarters, and other additions to our existing physical plant. The present budget structure facilitates the estimation of resource costs as well as the execution of the resource programs.
>
> This division of the budget by broad input or resource categories also provides needed flexibility for the adjustment in the program that are inevitably required in the course of the budget year. Program priorities and requirements always change in unanticipated ways even in the course of a single year as a result of international developments, technological breakthroughs (or disappointments), and all sorts of other events.

Mr. Hitch, in the same lecture, pointed out that this budget structure is familiar to the Congress and is preferred by them in their appraisal of the DoD budget. This structure is somewhat different from the structure of the Programming System which he introduced in 1961-62.

A budget composed of these functional resource categories is prepared annually and called the budget cycle.

The Budget Cycle

Preparation Process. Since 1921, submission of an annual budget by the President has been required by law (Ref 47:8). Since the President must submit his budget to Congress in January, development of inputs to it are required well ahead of its submission. For example, Secretary McNamara's Memorandum established 1 October 1965 as the deadline date for budget submission for FY 67. Work is started before January 1965 toward development of this estimate, which will be part of the President's budget submission in January 1966 (Ref 34:1-4).

The first year increment of the FYFS&FP is the initial base for determining the next fiscal year budget. In addition all recent program decisions made prior to 31 August are also incorporated in budget. Those PCP's on which decisions have not been made and any addendum budget proposals pending are considered for inclusion in the final budget estimate prior to 1 October.

Between 1 October and the January submission of the President's budget, BOB and OSD work in close coordination toward its final preparation. Decisions made during this period by BOB/OSD are based on Presidential guidance and take the form of Subject Issues. The final budget may be materially changed by these decisions. For example, the initial 1964 budgets submitted by the Services and Agencies amounted to $67 billion. All of the budgets were carefully reviewed by OSD and BOB. The analysis resulting from this review were forwarded to the Secretary of Defense for decision. In consultation with their principal advisors,

the Secretary and Deputy Secretary of Defense thoroughly study and make
decisions on all outstanding issues. These decisions are transmitted
to the respective services and any outstanding differences resolved.
As a result of this review, the $67 billion requested by the Services
was reduced to the total of $53.7 billion in new obligational authority
(Ref 51:89).

The FY 64 general statement of Secretary McNamara provides an
insight into the thinking behind these decisions (Ref 51:89-90).

> Admittedly, the President's budget does not include every
> program desired by the various elements of the Defense Estab-
> lishment. Many of the items deleted during budget review,
> although important perhaps from the viewpoint of one depart-
> ment, were redundant in terms of the defense program as a
> whole. This type of overlapping of proposed programs is
> inherent in the way the Defense Department is organized, and
> it is not necessarily undesirable. It does assist in pre-
> senting to the top management of the Department of Defense a
> wider range of alternatives from which to choose, but it also
> requires some hardheaded decisions in the program and budget
> reviews in order to prevent uneconomical duplication of effort.
> Then, there are a large number of desirable, though
> marginal or postponable, programs and activities which are
> always left to be screened out by the Secretary. Although
> this, too, increases the workload in my office, I believe we
> can adequately cope with it. We make this additional effort
> in order to insure that every project or activity deemed
> important to our national security by any element of the
> Defense Establishment is given consideration in the formula-
> tion of the overall defense program and budget.
> In adding to a Defense budget as large as the one we now
> have, we begin to encounter the law of diminishing returns,
> where each additional increment of resources applied produces
> a smaller increment of overall defense capability. While the

benefits to be gained from each additional increment cannot
be measured with precision, careful cost-effectiveness anal-
ysis can greatly assist in eliminating those program proposals
which contribute little military worth in relation to the re-
source expenditures involved. We have applied this principle
throughout our program and budget reviews. The budget formu-
lation culminates in its submission by the President to
Congress.

Legislative Process. After submission of the President's budget,
Congress begins a two-step legislative process. A House rule requires
that before an appropriation is made, the expenditure first must be
authorized by law. Authorization is one enactment; funds to carry it
out is another and separate enactment. First, hearings are held in the
Spring before Armed Services Committees of the House and Senate for the
purpose of authorizing expenditures. Second, presentations are made
before the Appropriation Committees of both the House and Senate to
appropriate these expenditures. This two-step legislative process is
one of the many checks and balance arrangements which the Congress
favors. It makes a clear distinction between an authorization and an
appropriation. This is not a constitutional distinction, but rather a
parliamentary device giving the Congress an opportunity to take a
"double look."

For many years the Armed Services Committees had an active role in
approving military programs and policies by yearly authorizations for
base and facilities construction. There were also committee procedures
for approval and disapproval of military real estate acquisitions or
disposals. However, most arms and equipment were authorized for pro-
curement in permanent legislation, so that the Armed Services Committees
did not systematically review proposed weapon acquisitions. As basic

HOUSE OF REPRESENTATIVES
Receives President's Budget
Refers to Appropriations

COMMITTEE ON APPROPRIATIONS, DEPARTMENT OF DEFENSE SUBCOMMITTEE

FULL HOUSE ACTION
Considers report, amends bill, debates and passes bill

OFFICE COMPTROLLER OF THE AIR FORCE
(DIRECTOR OF AIR FORCE BUDGET)

COMMITTEE ON APPROPRIATIONS DEPARTMENT OF DEFENSE SUBCOMMITTEE

SENATE
Receives House bill.
Refers to Appropriations Committee.

FULL SENATE ACTION
Considers report, amends bill, debates and passes bill.

HOUSE AND SENATE
Passes enrolled bill
Presents to the President
(After signature by both Speaker of House and President of Senate)

PRESIDENT
Signs enrolled bill into Appropriations Act.

CONFERENCE COMMITTEE
Reconciles differences between House and Senate versions of bill
Refers Conference Report to both House and Senate

Fig. 10
CONGRESSIONAL ACTION ON APPROPRIATIONS
(Jan - Jun - 6 Months)

policy and strategy decisions came to be more dominated by large weapon systems, the permanent or blanket authorization excluded the Armed Services Committees from participation in decisions. These decisions were left largely to the Appropriation Committees. Dissatisfaction with this state of affairs was soon in evidence in the Senate (Ref 42:43). This eventually led to enactment of the Russell Amendment to the Military Construction Authorization Act of 1960 (Section 412 (b)). This act directed a continuing requirement that:

> No funds may be appropriated after December 31, 1960, to or for use of any armed services of the United States for the procurement of aircraft, missiles, or naval vessels unless the appropriation of such funds has been authorized by legislation enacted after such date (Ref 56:1+).

This requirement was expanded, effective January 1, 1964, to include research and development as well as production of weapon systems. In this way, the Armed Services Committees have brought themselves back into the yearly review procedure on large weapon system procurements.

During the Spring hearings, the Secretary of Defense or his deputy testify on the overall DoD budget, with the service secretaries and their Chiefs of Staff testifying on the details of their respective sections. As a result of these hearings, Congress usually enacts legislation to authorize and to appropriate funds sometime in the June-August time period. The flow of a typical budget request through Congress is shown in Figure 10 (Ref 43:24).

During the Spring, apportionment requests are submitted by the services to OSD and tentative apportionment is made by OSD/BOB during June. This allows DoD to continue its business relatively uninterrupted

47
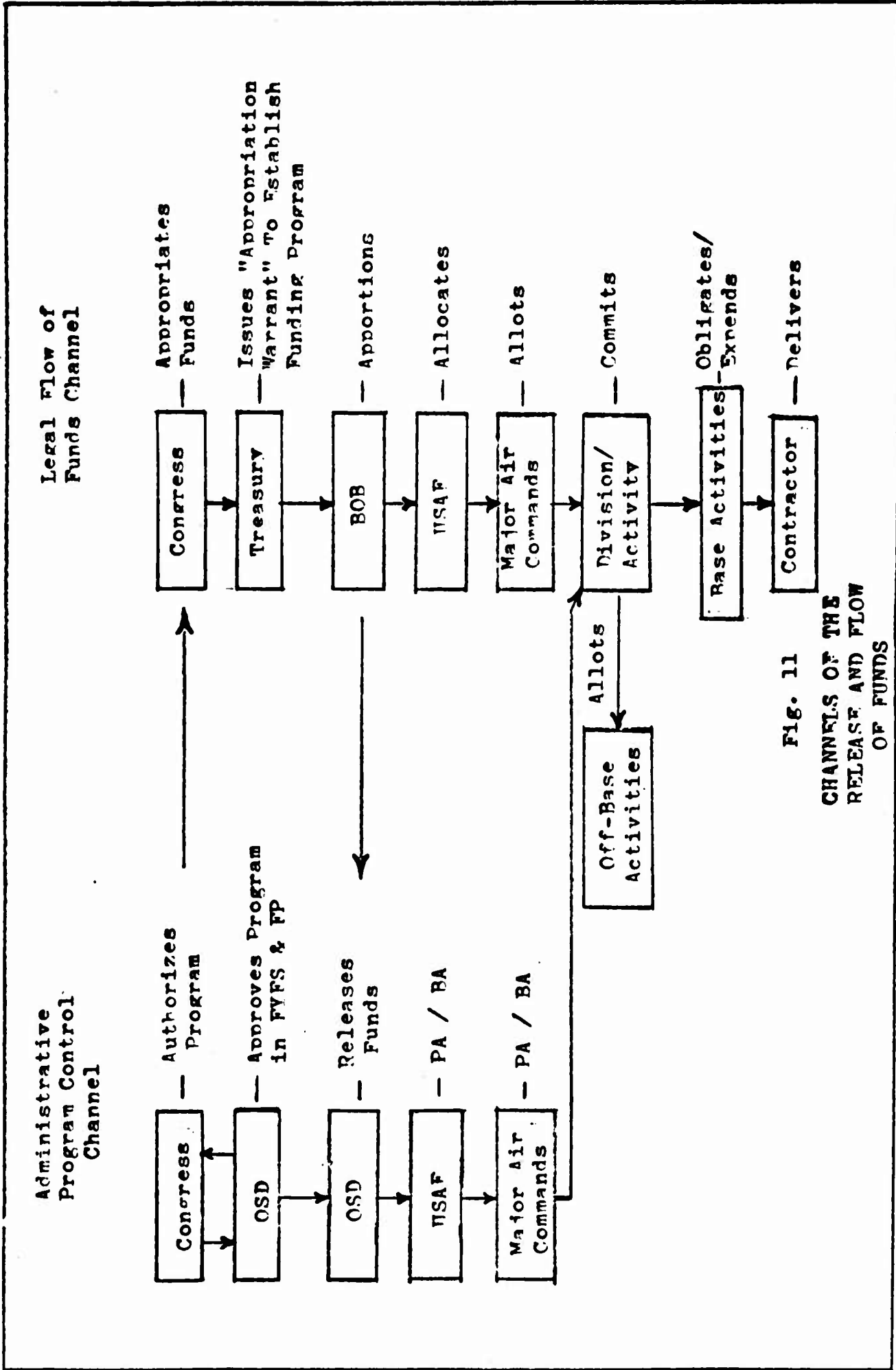
Fig. 11

CHANNELS OF THE
RELEASE AND FLOW
OF FUNDS

in the new fiscal year pending Congressional authorization and
appropriation legislation.

When the appropriation bill becomes law, it establishes the limit
of obligations which the Executive Branch may incur in carrying out the
programs covered by the appropriations. The President, through the BOB,
may then release appropriated funds to the departments. A discussion of
the control of these funds is contained in the next section.

Control of Appropriated Funds

This discussion of the control of appropriated funds will be
separated into three areas: 1) the release and flow of funds, 2) the
Quarterly Program Reviews and 3) the reprogramming of appropriated
funds.

Release and Flow of Funds. The release and flow of funds is a
sequential process and follows two parallel channels as shown in Figure
11. This division has been made to clarify and distinguish the
administrative control from the legal control. The program must first
be approved by OSD and included in the FYFS&FP prior to the budget
submission. Congress authorizes the program, appropriates funds and
the Treasury issues "Appropriation Warrants" to establish the funding
program. This is followed by apportionment of funds to USAF by BOB.

Through the legal channel, USAF allocates funds to the major
commands, which in turn allot these funds to a division or activity.
This establishes the necessary fund ceiling prior to the release of
funds. Meanwhile, in the administrative channel, OSD may release a part
or all of the necessary funds to USAF for accomplishment of a yearly
increment of a program element. Based on this release of funds, USAF

48

issues a procurement authorization (PA) and a budget authorization (BA) to a major command, which also issues a PA and a BA to the division or activity. After the division or activity has received an allotment, a PA and a BA, two courses of action are available. Funds may be further sub-allotted to an off-base activity or committed to a base activity. They may then be obligated to a contractor. After delivery of the equipment, supplies or services by a contractor, an expenditure is made.

These channels show only the delegation of the authorizations made by Congress. They do not depict the responsible agencies or activities that account for funds. Accounting for funds is an area outside the scope of this report. However, it is important to understand the types of appropriations made by Congress and their time span.

Types of Appropriations. There are many types of appropriations used by DoD, however, the most common are the one-year, multiple-year, and no-year appropriations. The one-year appropriations are available to buy goods and services (incur obligations) for only one fiscal year. The appropriations made for Military Personnel and Operations and Maintenance are of this type. Multiple-year appropriations are available for a specified period of time in excess of one year and are usually for RDT&E and Military Construction. The no-year appropriations are available indefinitely until the purpose for which the appropriation was created is complete or the appropriation is exhausted. This type of appropriation is usually made for Procurement.

In the AF Systems Command the need for shifting appropriated funds among programs is often recognized in the Quarterly Program Review.

Quarterly Program Reviews. The DoD Programming System was intended to provide decisions on a continuous basis independent of the annual

budget cycle. In consonance with the continuous programming aspects of the DoD Programming System, AF Systems Command conducts quarterly program reviews. These quarterly reviews bring together representatives of USAF, AF Systems Command, Division, and the SPO, for the purpose of reviewing the program status, updating requirements and documentation, and providing guidance on reprogramming and PCP action. Since representatives at all echelons involved are present, many on-the-spot decisions on reprogramming actions, within USAF authority, are made. Changes beyond USAF authority, which are determined necessary during the reviews, will result in preparation of PCP, and/or reprogramming documentation. These reviews provide a well informed representative at each level to expedite documentation (Ref 9:15).

These quarterly program reviews examine the financial and non-financial portions of a program. Emphasis on the non-financial portion of a program may vary at the discretion of the division and emphasis on the financial portion varies with the requirements of the program budget and procurement cycle. In the January review, special emphasis is on obtaining USAF-AF Systems Command understanding of the program guidance for the annual call. The annual call requires the submission of documentation to justify all budget estimates. During the April review, special emphasis is placed on division budget submission, justification, and backup data to support the Air Force apportionment request. All PCP's that will have an impact on the apportionment request must be prepared prior to the April review. In the August review, emphasis is on updating the April budget submitted by the divisions. This data is used to support the USAF October budget submission. The October review is conducted by the divisions alone and emphasis is on the updating of

financial and program documentation (Ref 38:3). Reprogramming will now be discussed because it is an important procedure in the control of funds.

Reprogramming of Appropriated Funds. Reprogramming represents the diversion of appropriated funds from the original justified purpose. To understand why and how these adjustments in appropriated funds are made, it is essential to explain: their purpose, time span, base for reprogramming actions, history of reprogramming thresholds, and current reprogramming thresholds.

A. Purpose. Reprogrammings are necessary for a variety of reasons such as unforeseen requirements, changes in operating conditions, incorrect price estimates, wage rate adjustments, and legislation enacted subsequent to an appropriation action. Some reprogrammings are relatively minor while others are substantial and far-reaching in scope and effect. Each appropriation, as set forth in the usual DoD bills, tend to place primary emphasis on the broad program areas, thus appearing on the surface to relegate to the status of secondary importance the several budgetary breakdowns which make up the total. However, the budget estimate for an appropriation depends for its accuracy on the underlying cost of activities or line items which make up the total estimate. Congressional committees recognized that there will always be some unforeseen changes in operating conditions and circumstances due to the time interval between the making of the estimates and the actual obligation and expenditure of the funds. In the past, there was generally a lapse of eighteen months between the time the budget was prepared and the end of the fiscal year in which it was spent. With the advent of "no-year" funds and the rescheduling of the FY 67 budget estimate

cutoff dates (Ref 34:1-4) this interval may be increased to a period of over four years. Consequently, during this period of time some reprogrammings are inevitable. The time span during which reprogrammings are made should be reviewed.

B. Time Span. The financial reprogramming controls imposed by DoD Instruction 7250.10 (Ref 20:1+) are applicable to prior years and the current fiscal year. During the last six months of each current fiscal year, these controls apply to the upcoming fiscal year or budget year. This time span of reprogramming is shown in Figure 6 facing page 30. DoD Instruction 7250.10 also establishes the base for reprogramming actions.

C. Base for Reprogramming Actions. The base for reprogramming actions is established immediately after final Congressional action on fund authorizations and budget requests. It is expressed in terms of items or activities measured in quantities and amounts, and shows the purposes for which funds have been authorized and appropriated. A report on the base for reprogramming actions, DD Form 1414, is prepared by the services for submission to the Assistant Secretary of Defense (Comptroller), see Appendix F. This information is promptly transmitted to the Armed Services and Appropriations Committees of the Senate and House. Changes to this base or reprogrammings may require the approval of these Committees. Certain thresholds have been established by them above which they retain approval authority.

D. History of Reprogramming Thresholds. The history of reprogramming thresholds as established by Congress shows a definite trend in the tightening of Congressional budgetary control.

The early Secretaries of Defense were forced to prepare the budget without the benefits of good planning. This lead to many readjustments of funds through reprogramming actions.

These readjustments did not go unnoticed by Congress. House Report No. 493 (Ref 48:8) on the Department of Defense Appropriations Act of 1956 expressed concern over the numerous reprogrammings of funds within DoD appropriations. This report stated that the current practice of the services in advising the Committee of major reprogramming both by way of specific request for clearance and notification for information purposes, depending on the nature of the change, must be continued. In addition, the Committee requested a semi-annual detailed tabulation and report of all reprogramming of funds.

The intent of this House report was carried out by DoD Instruction 7250.5, "Report on Reprogramming of Appropriated Funds," dated 23 December 1955. Further, this DoD Instruction defined major reprogramming as any individual action or actions which fall within one or more of the following criteria:

1. Individual actions or a total of actions during the fiscal year which represent increases or decreases of five per cent (5%) or more of a budget activity/program whose total annual program is less than $200,000,000;

2. Individual actions or a total of actions during the fiscal year which represent increases or decreases of $10,000,000 or more of a budget activity/program whose total annual program is $200,000,000 or more;

3. Individual actions which involve items in which the Committee has shown a specific interest, without regard to the amount of funds involved, or for which the military

departments consider it desirable to advise the
Committee (Ref 18:2).

Concern was again expressed on 26 August 1958, when Mr. Mahon,
Chairman of the House Subcommittee on Defense Appropriations wrote to
Secretary of Defense McElroy and suggested that a major program change
be designated as one involving more than $5 million (Ref 30:1).

Further Congressional concern was expressed on 28 May 1959 in House
report 408, Department of Defense Appropriation Bill, 1960, in which the
House directed OSD to report periodically, but in no case less than 30
days after approval, the approved reprogramming actions involving $1
million or more in the case of Operations and Maintenance (O&M) and
RDT&E, and involving $5 million or more in the case of Procurement.
Likewise, the Senate Report No. 476 (Ref 49:27), formalized the Senate
request for reprogramming reports from DoD on the same basis as those
requested by the House Committee.

The changes in thresholds directed by Congress were incorporated in
DoD Instruction 7250.5 dated 23 October 1959. The threshold for O&M
appropriations remained at $1 million, however, the RDT&E appropriation
threshold was revised to $2 million for changes in or the addition of a
budget activity or development project. The procurement appropriation
threshold remained at $5 million for a change in an existing line item,
with the added restriction of $2 million for the addition of any new
line item (Ref 19:2).

Again on 20 March 1961, Mr. Mahon expressed congressional concern
in a letter to Secretary of Defense McNamara, which resulted in the
current thresholds which will now be outlined (Ref 31:1-2).

E. Current Reprogramming Thresholds. The next change to the re-
programming thresholds occurred in March 1963 and established those
currently in use (Ref 20:2-3). This change added a threshold of $5
million for Military Personnel, increased the threshold for O&M from $1
million to $5 million but left the thresholds for RDT&E and Procurement
unchanged. It also requires that Congressional notification be made
within 48 hours on those above threshold reprogrammings involving only
re-pricing pricing adjustments. In addition, specific prior approval
by the appropriate House or Senate Committees is now required in those
cases involving the application of funds to: 1) procurement of items
omitted, or deleted by the Congress, from programs as originally pre-
sented, 2) programs for which specific reductions in the original
amounts requested have been made by Congress, 3) programs which have not
been presented to or considered by Congress, and 4) quantitative program
increases proposed above the programs originally presented to Congress.
All reprogrammings furnished to Congress must now indicate the relative
urgency of the matter and the length of time it has been in process
within DoD. The current thresholds for reprogramming actions is
summarized in Appendix G.

Summary

Budgeting, like most other human created activities has undergone
the process of evolution. Budgeting as known today was started by the
Budgeting and Accounting Act of 1921. This act was revised in 1950.
Secretary Forrestal developed an entirely new and uniform budget
structure for the services which still exists today. The preparation
of the budget is an annual process which requires the continual efforts

of the Department of Defense. The history of reprogramming thresholds

as established by Congress shows a definite trend in the tightening of

Congressional budgetary control.

V. Evaluation and Analyses

Introduction

This chapter is divided into three sections. The Management Criteria section contains broad management standards for evaluating the DoD Programming System. These standards will be summarized in the form of accepted management principles. Only those principles applicable to the analyses are enumerated although it is recognized that many other management principles might apply to a lesser degree.

The significant accomplishments made by the DoD Programming System are presented in the second section.

In the Analyses of Problem Areas section, a general hypothesis is established on the effectiveness of the DoD Programming System. Ten findings are presented which support this hypothesis.

Management Criteria

As a frame of reference, applicable management principles will be developed from the thinking of educators and practitioners of management. These basic management principles will be used as criteria to support the analyses.

Management Definitions. The concept of management has been defined in various ways. F. W. Taylor defined management on a personal basis, "knowing exactly what you want men to do, and then seeing that they do it in the best and cheapest way." This can be restated as the "process of achieving desired results by the use of human effort and facilitating resources" (Ref 33:9). The following management authors and authorities

place different emphasis on this basic theme:

R. C. Davis:

> Management is the function of executive leadership. It is the
> work of planning, organizing and controlling the activities of
> the organization in the accomplishment of its objectives
> (Ref 12:20).

Koontz and O'Donnell:

> Management is defined here as the accomplishment of desired
> objectives by establishing an environment favorable to per-
> formance by people operating in organized groups (Ref 29:1).

W. M. Fox:

> In reality, managing is a continuous operation or process
> involving the interaction of the organic functions . . .
> planning, organizing, and controlling (Ref 23:5).

A. P. Sloan:

> . . . good management (of a large organization) rests on a
> reconciliation of centralization and decentralization, or
> "decentralization with co-ordinated control."
>
> Each of the conflicting elements brought together in this
> concept has its unique results in the operation of a business.
> From decentralization we get initiative, responsibility,
> development of personnel, decisions close to the facts,
> flexibility--in short, all the qualities necessary for an
> organization to adapt to new conditions. From co-ordination
> we get efficiencies and economies. It must be apparent the
> co-ordinated decentralization is not an easy concept to
> apply (Ref 46:429).

R. S. McNamara:

> On reflection, it became clear that either of two philosophies
> of management could be followed by a Secretary of Defense. He
> could play an essentially passive role--a judicial role. In
> this role the Secretary would make the decisions required of
> him by law by approving recommendations made to him. On the
> other hand, the Secretary of Defense could play an active

role providing aggressive leadership--questioning, suggesting
alternatives, proposing objectives, and stimulating progress.
This active role represents my own philosophy of management
(Ref 32:2).

Secretary McNamara's philosophy can only be applied by a manager
that is as knowledgeable in all facets of the tasks being performed, as
those carrying out the tasks. Since the emphasis on the management
functions varies for each level of management, the lower levels being
more involved in the operational aspects, this direct involvement forces
more of these operational decisions to higher and higher levels.

Management Emphasis. The emphasis on the management functions
varies with the levels of management in an organization. These levels
have been referred to as the management pyramid:

The base of the pyramid is first line supervision--for
example, the foremen. The procession up the pyramid of
management levels proceeds through the general foremen,
superintendents, branch managers, division managers, middle-
management group executives, and finally top management
(including the Board of Directors). The bulk of the oper-
ating decisions are made in the lower regions of the manage-
ment pyramid. As we proceed up the pyramid, the role of the
decisions change from operational to those more directly
concerned with the planning and control phases (Ref 40:86).

The difference in emphasis is directly related to the objectives
each level of management is concerned in achieving. The first line
foremen are primarily interested in accomplishing the work orders
assigned them. The second level supervision is concerned with the flow
and accomplishment of the work orders in a timely fashion. The degree
of management at these levels are relatively low but as one progresses
up the management pyramid the application of the management functions

must change. The degree of planning and policy-making varies from almost none at the lowest level to being the major effort of top management. The major concern of top management is described as follows:

> General management functions are <u>executive</u> in character and continuous in performance; they have to do with the overall management of the company. They include the <u>initiation</u> and <u>formulation</u> of changes in objectives, overall operating policies, and plans (Ref 23:245).

This change in management emphasis from the operational or direct management of individuals to one of an indirect management of group efforts is the direct result of the limitations of managers to supervise a multitude of tasks and people, the well known span of control principle. In addition, the communications problem of applying direction becomes more difficult as the levels of management increase.

In practice, managers tend to do those functions with which they are familiar.

> Obviously, a great deal of management work is being performed. The blunt truth of the matter is that, in most companies, a great deal of this work is overlap, duplication, and unnecessary effort. In many instances, managers at upper levels reserve to their positions parts of the operating work they want to perform themselves . . . . As a result, in most organizations, we find a great deal of unnecessary operating work being done at all levels. This means that managers at lower levels are deprived of the opportunity to do the more difficult and demanding management tasks and to learn to master this work (Ref 5:80).

The present management emphasis in OSD has been succinctly stated by Mr. Gilpatric in a speech to the National Association of Manufacturers in Washington during January, 1963. The Secretary of Defense has two choices in undertaking his task:

> . . . one is to conceive of his functions as primarily policy making with his determinations backed up by budget feelings. Under this concept, most of the decisions in such important areas as military planning and programs would be handled by the JCS and principal commands. The other significant areas such as research and development and procurement would be delegated to the Service Secretaries and their staffs. Under the other concept of the role of the Secretary of Defense, he retains in his own hands, assisted by civilian and military advisors, the basic decision-making power in all the areas just mentioned, leaving to the Services and commands the responsibility of executing his decisions. Secretary McNamara choose the second method.

The relative size of an organization also has a pronounced effect on the emphasis placed on the management functions. For companies that are small and have all their facilities in one geographical location, the establishment of a centralized management organization is practicable. As an organization grows and its operation and facilities become dispersed, some degree of decentralization is inevitable. The degree of decentralization increases as the organization grows larger. This is apparent when such companies as General Motors, General Electric and DuPont are examined.

The concept of decentralization has been presented as ten principles by Ralph J. Cordiner, former President of the General Electric Company. The four of these principles are:

1. Decentralization places authority to make decisions at

points as near as possible to where actions take place.

2. Decentralization is likely to get best overall results
by getting greatest and most directly applicable know-
ledge and most timely understanding actually into play
on the greatest number of decisions.

3. Decentralization will work if real authority is delegated;
and not if details then have to be reported, or worse
yet, if they have to be "checked" first.

4. Decentralization can be achieved only when higher execu-
tives realize that authority genuinely delegated to lower
echelons cannot, in fact, also be retained by them
(Ref 11:50).

With an annual budget nearly $50 billion, property worth over $150
billion, and a world-wide sphere of operations, the Department of De-
fense certainly qualifies as a large organization, which must have
decentralized management. To assure the successful integration of all
the many diverse tasks being performed, the top levels of management
necessarily are involved in planning and policy-making. Even these
functions will vary in relation to the time periods in which they are
to apply. The higher the level of management the further into the
future plans and policies should be. However, research studies indicate
the "single most important problem in corporate planning derives from
the belief of some chief operating executives that corporation planning
is not a function with which they should be directly concerned"
(Ref 22:538).

Long-range Planning. Long-range planning will cover a period of
years into the future beyond those plans that are now under development.
This period will vary depending on the type of industry and the needs
of an organization. Many companies are planning five, ten or even 20

years ahead, so that planning beyond five years is considered as being long-range, from two to five years is considered as mid-range planning and six months to two years is short-range or near-term planning (Ref 22:537).

The larger organizations must extend their plans many years into the future since their indebtedness may commit them to a financial plan of 20 to 40 years duration. Hence, plans should extend far enough into the future to equal the period for which the commitment is being made to assure the soundness of the decision (Ref 29:87).

The governments of countries are organizations that are committed to the future through plans for economic development, welfare and defense. With the interdependencies of nations, governments will commit themselves to treaties and obligations for many years. The Department of Defense with its annual budget of nearly $50 billion exceeds the Gross National Product of over 90% of the nations in the world (Ref 27:94). Therefore, the need for long-range planning beyond the commitment to the development of the next generation of weapons systems is essential.

Long-range plans are basically made in two distinct steps. First, objectives must be established and second, policies or guidelines formulated to assist in the preparation of plans that will achieve the desired objectives. In practice, the depth of this type of planning has been extremely shallow because it is most difficult for a manager to foresee the future. Nevertheless, it is certainly one of the most important functions of top management (Ref 22:537).

Failure to establish long-range goals results in lack in direction to lower levels of management. If this void is not filled, lower

managers will create their own goals and the result is "a hodgepodge of unrelated, unintegrated, and expensive internal research and product development programs" (Ref 11:51). In essence, individuals do planning and if objectives are not provided they will establish their own which may or may not be in the best long run interest of the organization.

A comprehensive study of American industry indicates that the majority have plans extending to five years (Ref 10:130-141). The equivalent of this in DoD is the FYFS&FP. The JLRSS provides guidance for a period of 14 years. However, these periods of planning for the DoD programs do not extend beyond the life expectancy of the weapon systems presently under development. A planning area of equal importance to top management is long-range planning of controls. The application of proper controls is essential to assure the successful completion of plans.

Control Emphasis. The design of controls for management of an organization is an extremely difficult task. Few realize the serious ramifications that poorly conceived or ineptly installed controls can have on an organization.

Organizational controls are those controls established at each level of management to report progress and any deviations for the purpose of attaining pre-determined objectives. Different levels of the organization will require varying degrees of control: The lowest level will require those controls that react immediately to any deviation from the daily schedule, such as, a machine breakdown. At mid-management levels, controls take the form of submittal of periodic reports that indicate current accomplishments against the established schedule. While at the top level of management, the reports covering longer

periods of effort are used to reflect current effort as trends extended from previous accomplishments.

Controls must be designed to achieve varying objectives. These objectives range from immediate response to an annual response. Since controls are applied over a wide range, their design should assure that the efficiency of the control to detect deviations is not exceeded by the cost of its operation. Cost of a control system should be evaluated in not only its tangible dollar costs to install and operate, but also its intangible costs due to inhibiting the perogatives of a manager to perform his responsibilities. The higher the level of management, the broader the control system should be to allow the flexibility needed for responsive decision-making. Therefore top management must devote their efforts to planning the design and the proper degree of control. Properly designed controls will establish the desired environment for a smooth functioning organization, through exercising and maintaining the desired degree of management discipline necessary to accomplish pre-determined plans (Ref 29:625).

Traditionally, organizations have applied financial controls as a means of evaluating not only its overall efficiency, but also various functional areas. Financial control has two forms, "financial accounting focuses on the whole of the business, while management accounting is more interested in the parts" (Ref 6:316). Financial accounting is required for preparing public statements on the health of a company. Management accounting reports provide costing information of internal value to assist in making management decisions. This latter accounting is therefore optional and as such must prove its worth to management before its installation. Since decisions that apply to future action

is decision-making under uncertainty, the degree of accuracy of the data must be weighed against the value of the decision itself. Most decisions can and are modified as the time of execution shortens, due not so much because of the inaccuracy of the original data but due to the updating of the basic plans themselves.

Another aspect of control is the cost of delay in decision-making. Frequently, cost analysis can become so time consuming that timely decisions cannot be made. The impact of excessive delays can jeopardize the successful execution of subsequent plans. Therefore, controls should be designed so that decisions can be made in advance of any limiting factors (Ref 29:136-137).

Management Principles. The management areas applicable to this study have been summarized in the following principles.

1. Principle of Limiting Factor: In choosing among alternative solutions to a problem, primary attention must be given those factors which are limiting or strategic to the solution (Ref 29:201).

2. Principle of Decentralized Decisions: A decision should be made at the lowest level in the organization that has the requisite competence, authority, and prestige (Ref 12: 307).

3. Principle of Decentralization: Decentralization should place authority to make decisions at points as near as possible to where actions take place (Ref 11:50).

4. Principle of Efficiency of Controls: Control must be efficient enough to detect deviations from plans with a minimum of unsought consequences (Ref 29:621).

5. Principle of Control Responsibility: Control must be exercised only by the manager responsible for the execution of plans (Ref 29:621).

6. Principle of Organizational Suitability: Controls must reflect organization structure (Ref 29:622).

7. Principle of Review: The control system should be reviewed periodically (Ref 29:624).

8. The Exception Principle: Adequate control requires attention, primarily, to exceptions (Ref 29:624).

9. Principle of Absoluteness of Responsibility: Responsibility cannot be delegated, no superior can escape, through delegation, responsibility for the activities of subordinates, for it is he who has delegated authority and assigned duties. Likewise, the responsibility of the subordinate to his superior is absolute once he has accepted an assignment and the power to carry it out (Ref 29:65).

10. Principle of Parity of Authority and Responsibility: Authority is the power to carry out assignments and responsibility is the obligation to accomplish them, it logically follows that the authority needed to do this should correspond to the responsibility (Ref 29:65).

11. Principle of Delegation by Results Expected: Authority should be delegated to the extent and in the manner necessary to accomplish results expected (Ref 29:64).

12. Principle of Timely Decisions: As an organization grows in size and becomes more physically dispersed, time becomes more crucial in the decision-making process (Ref 12:308).

13. Principle of Procedure Control: Procedures must be controlled by being clear as to their purpose, how much they cost, when they are duplicated, how to overhaul them and how to control them (Ref 29:567).

14. Principle of Policy Framework: Policies establish the framework upon which planning procedures and programs are constructed (Ref 29:201).

15. The Commitment Principle: Planning should cover a period of time in the future necessary to foresee, through a series of actions, the fulfillment of commitments involved in a decision (Ref 29:202).

16. Principle of Strategic Planning: Under competitive conditions (that is, where others are striving for the same goals), plans should be chosen in the light of what a competitor will or will not do. It is not enough to build plans logically from goals, unless the plans take into account a rival's plans (Ref 29:202).

17. Span of Management Principle: There is a limit to the number of persons an individual can effectively manage, . . . (Ref 29:386).

Accomplishments of the DoD Programming System

The merits of the DoD Programming System and its advantages over previous methods, were continually mentioned in personal interviews. The statements were in most cases substantially supported by further evidence found during the research effort. In view of the supporting evidence and an evaluation in terms of the management criteria previously shown, some of the significant accomplishments are:

1. The program structure of the DoD Programming System has provided a basis for conducting DoD planning and programming on a mission oriented basis. For the first time, a weapon system was defined and evaluated as a separate entity.

2. As a result of the DoD Programming System there has occurred an unification of effort of the military services toward reaching the common goals of the Defense Department. This is accomplished through an overall review of the services programs on an integrated basis.

3. Through cost-effectiveness analysis, this System has enabled managers to introduce more logic into the process

of decision-making. This evaluation of alternatives has enhanced military decisions previously made only on the basis of judgment and experience.

4. The short-range annual budget is limited in value as a planning/decision tool for developing and producing a sophisticated weapon system requiring a long lead time. This need has been fulfilled by the Programming System with the compilation of an official Defense program extending five years into the future and serving as a baseline for planning and decision-making.

5. The Programming System has integrated mid-range planning with current programming through the JSOP. This integration incorporated military planning and thinking into the weapons acquisition process.

It would be remiss to recognize only the accomplishments of the System itself and not those of individuals responsible for its conception and implementation. Mr. Charles J. Hitch, ably assisted by other members of OSD and the RAND Corporation conceived and implemented the system rapidly and successfully. This is a real achievement when the complexity of the Department of Defense is considered.

Analyses of Problem Areas

This section presents the analyses of problem areas that support the following general hypothesis:

Current problems with the DoD Programming System has caused OSD to be pre-occupied with detailed management of short- and mid-range goals to the detriment of long-range planning and general policy guidance.

This hypothesis was established, as a frame of reference, to evaluate the effectiveness of the DoD Programming System as a management tool in the acquisition of weapons system.

The analyses of problem areas are presented as specific findings. Management principles, established in the first section of this chapter, have been used as the basic standard for the conclusions reached in each finding. These findings have not been placed in order of importance but rather have been arranged as "building blocks" to support subsequent ones and ultimately support the general hypothesis.

Finding I. Under the provisions of the DoD Programming System decisions on PCP's are not being made in a timely manner.

Many of the personnel interviewed within System Program Offices pointed out that their program's progress was hampered by slow decisions on PCP's. Others brought out the fact that requests for additional information on PCP's were more of a rule than an exception. It was also pointed out that much of the back-up data for a PCP was returned for revision. This statement is supported by an analysis of a sample of 12 programs under systems management, in which 14 of 16 PTDP's and 31 of 41 PSPP's submitted were returned for rewrite (Ref 3: 281). The investigation was made based on this background.

The key to peace and to world power very often lies in the strength of superior weapons. The superiority of any weapon is directly related to the speed of its development. Therefore, the careful consideration of time factors is vital in developing a weapon system.

The development and acquisition of weapons is occurring in a rapidly changing environment (Ref 36:47). Decisions made in one period based on available information may be invalid at some later date if the situation has changed. The timeliness of these decisions is of utmost importance if a system is to be acquired before it is obsolete. Koontz
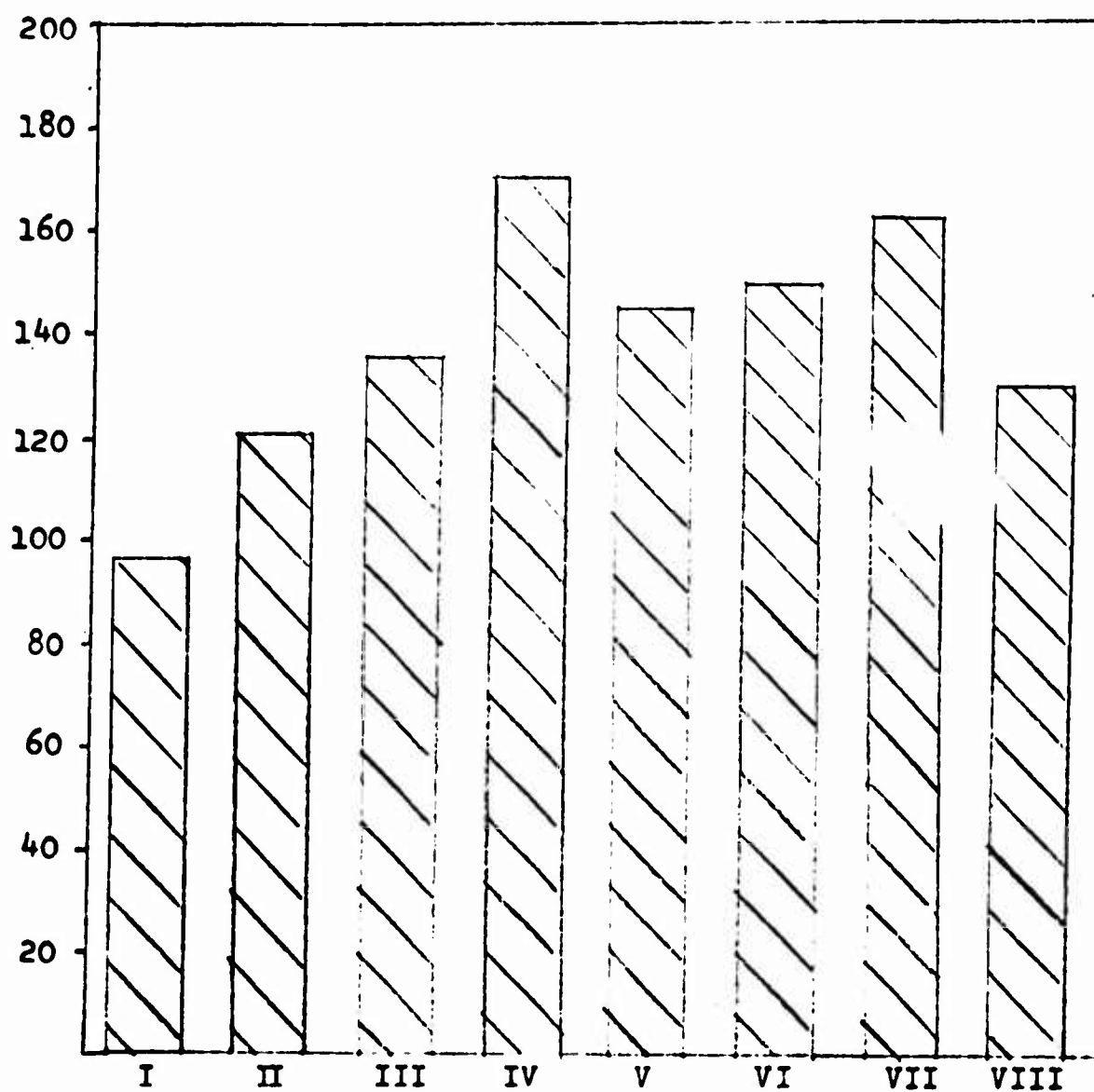
Fig. 12

TOTAL PCP CYCLE - Submission to approval
CY 1964 Sample of 128 PCP's

and O'Donnell state in their principle of limiting factors: "decision-makers must give primary attention to those factors that are limiting or strategic" (Ref 29:201).

Based on the previously established principle of timely decisions, and in consonance with the desire of OSD to provide continuous decision-making under the DoD Programming System, the authors are of the opinion that a decision on a PCP should be rendered within 30 days after receipt by OSD.

Through an analysis of the 128 PCP's submitted by the Air Force in CY 64 it was found that the average time required to obtain a decision was 140 days. A breakout of the processing time within each of the major programs is shown in Figure 12. Of this total time, an average of 78 days was required for processing/review within OSD.

The Programming System was originally designed to allow for decisions in PCP's on a continuous basis. OSD has recognized the impact of the annual budget on this decision-making process and has established a schedule for PCP submissions in an attempt to meet this requirement. OSD still describes the system, however, as one that allows for continuous submittal of PCP's. This would indicate that decisions would be rendered on a continuous basis. An analysis of the decision dates on PCP's during CY 64 is shown in Figure 13, opposite the next page. From this chart it is obvious that very few decisions are being made outside the budget cycle. It would be illogical to assume that the decision demands of Air Force programs actually follow this type of distribution during an average year. It is apparent that program decisions are being made in order to finalize the budget and not based on the importance of the decision itself.
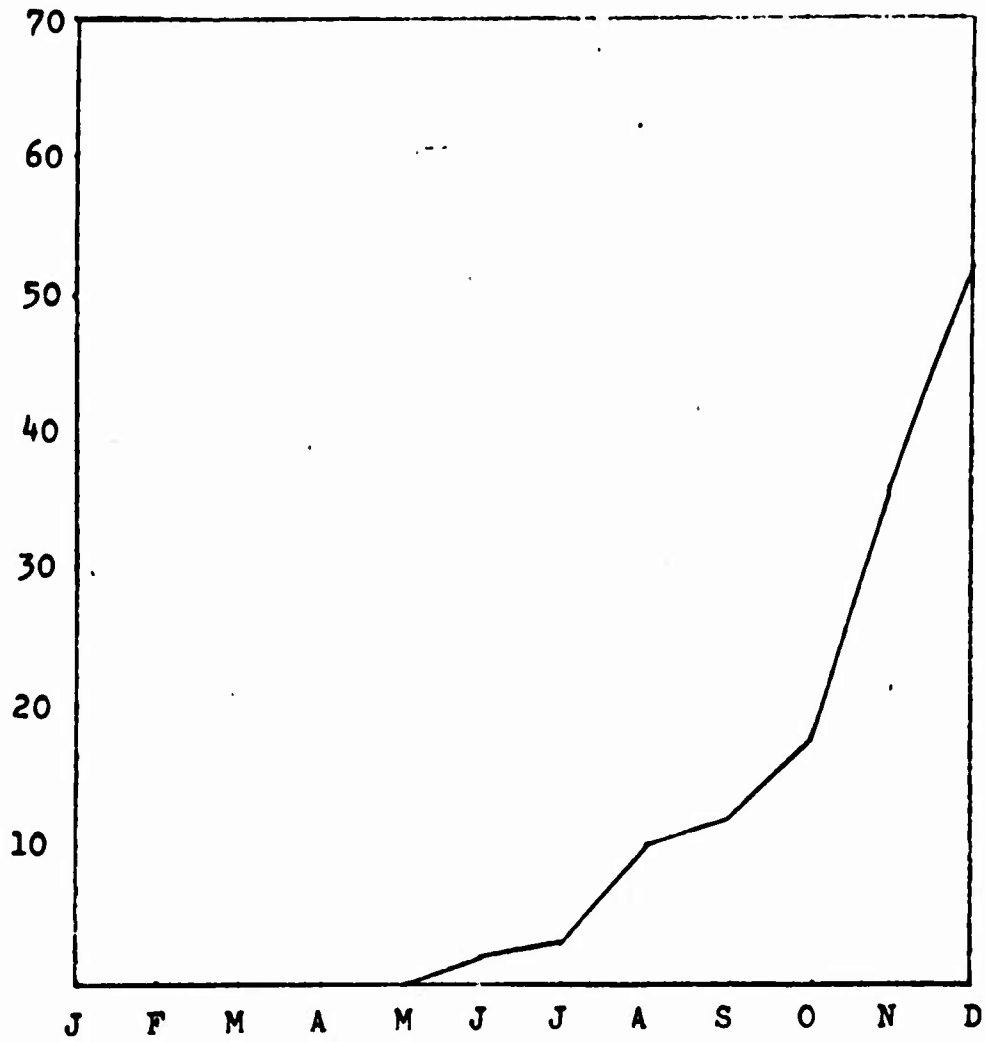
Fig. 13

OSD DECISIONS ON PCP's
CY - 1964

Although outside the scope of this specific finding, it was found that the present schedule requirements for PCP submittal does not allow for proper planning by Program Managers. Based on what they think Congress will appropriate OSD/BOB make tentative apportionments of funds during the month of June for the coming fiscal year. Prior to June 15th, however, all PCP's which contain requirements for the following fiscal year, have to be submitted to OSD. This means that Program Managers are having to formulate requests for future years based on what they expect to get for the current year. This type of operation may be compared to attempting to plan a course to reach a particular destination when your present location is unknown. As a result, many adjustments have to be made after receiving the tentative apportionment and again after Congress has approved the budget in late August.

Therefore, it is concluded that timely PCP decisions are not being made. The degree of untimeliness and its associated cost in dollars to DoD is of course extremely difficult to measure and has not been assessed in this study.

Finding II. There has been a modest growth of OSD personnel to accommodate the detailed management of the DoD Programming System.

This finding was investigated in response to numerous accusations that the staff of OSD had been increased to the point that it had become a "make work" organization.

Since 1960, the manning of OSD has undergone a growth from 2947 personnel to over 43,000. A careful analysis of OSD manpower will show that the majority of these personnel are not employed in jobs relating directly to functions of the DoD Programming System. A breakout of
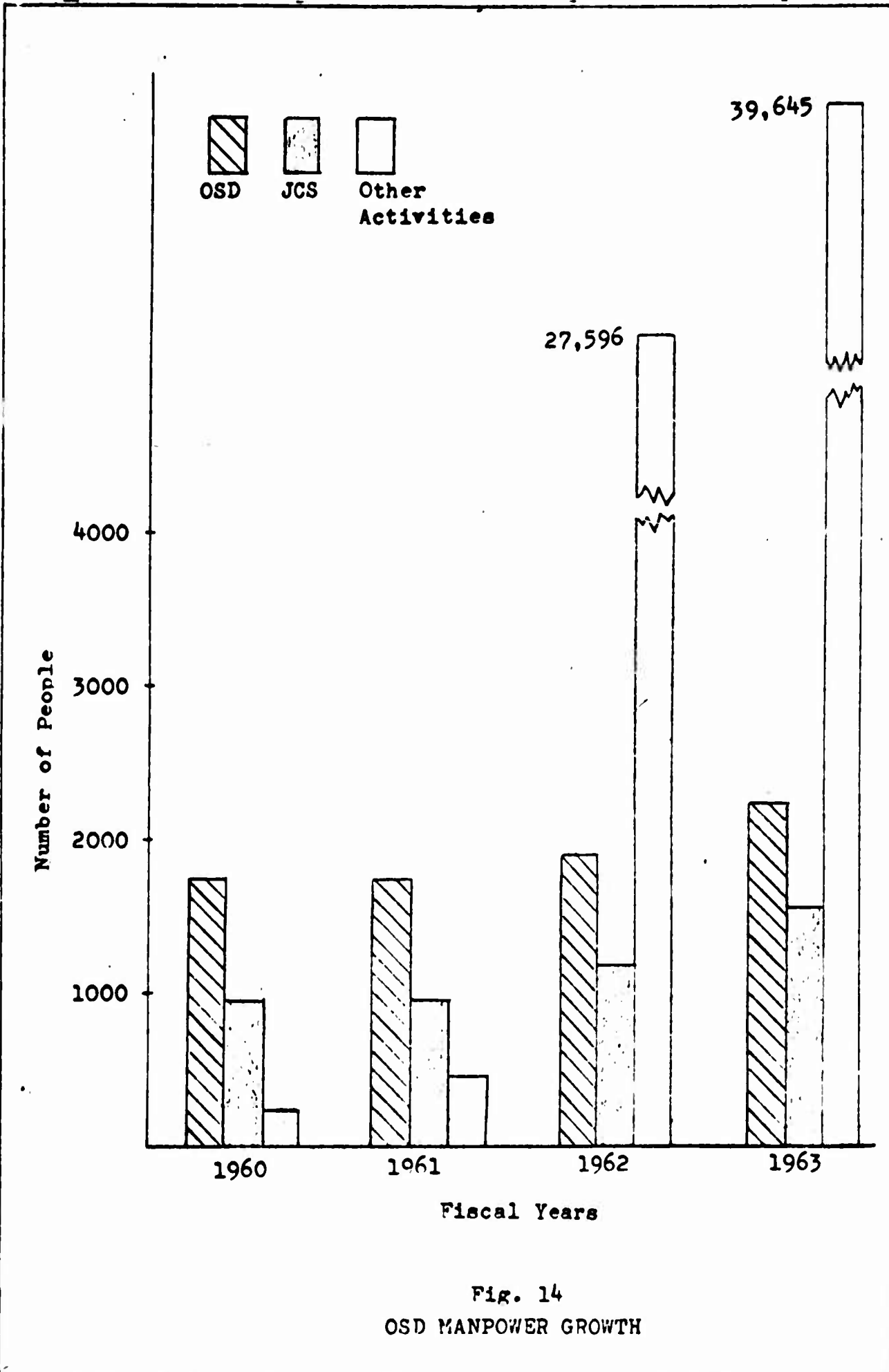
Fig. 14

OSD MANPOWER GROWTH

where OSD personnel are assigned is shown in Figure 14. This indicates

that the basic reason for the large increase in personnel was due to

the addition to OSD of many super-agencies (Ref 55:378, 386). Since

these agencies are not directly involved in the Department of Defense

planning-programming efforts they should not be included in the growth

figures. Thus, the actual growth of the OSD staff has been from 1745

personnel to 2247 or an increase of 29 per cent in the 1960-1963 time

period. This is a modest growth when compared to a 65 per cent increase

in personnel in the JCS during the same four year period.

Therefore, it is concluded that the OSD staff has not had a

phenomenal growth since the growth is mainly due to the addition of the

super-agencies.

Finding III. Program Change Proposal thresholds are too low for

the level of management at which they are being exercised.

The services can make certain changes each year to programs which

the Secretary of Defense has previously approved and which are listed in

the FYFS&FP. Most changes are limited by a dollar threshold and this

amount cannot be exceeded during the current year except by approval of

the Secretary of Defense. The threshold amounts are shown in Figure 8,

facing page 34. Changes made within these thresholds are only changes

in plans for already approved programs and no new obligations are being

made.

These thresholds were arbitrarily set when the DoD Programming

System was implemented in 1961, and have not been significantly revised

since their establishment. Investigation revealed that no analysis was

made to determine the proper threshold levels. There were also no

formal attempts to examine the impact these controls would have at the operational level.

The degree of centralization or decentralization in DoD is vitally affected by these thresholds. Henri Fayol stated that "the question of centralization or decentralization is simply one of degree--the problem is to find out what is the best degree of centralization for a given undertaking" (Ref 12:304).

As organizations grow in size, centralized control tends to become a disadvantage. Some of these disadvantages and how they relate to situations found in DoD are as follows:

1. Data, experience and ability required by top authorities for accurate decisions tends to increase faster than the growth of the organization itself. The experience and ability of employees cannot be quickly improved, therefore the working force is usually increased to compensate for lack of capability. The size of the OSD staff was increased by 29 per cent from 1960 to 1963, although DoD personnel strength remained relatively unchanged (see Finding II).

2. Top managers usually have less personal knowledge of conditions at the operational level. To compensate for this, more detailed procedures and data are required which results in rapidly increasing overhead costs. A majority of SPO personnel interviewed pointed out the ever increasing demand for detailed information being requested by OSD. For instance, OSD staff personnel participated directly in securing cost estimates from a contractor to be used in the preparation of a F-111 PCP. The cost data obtained by OSD was in much more detail and depth than normally needed to support a PCP. The emphasis on detailed data is also evidenced in DoD Directive 7041.1, "Cost and Economic Information System" (CEIS). Requests for more

data on PCP's and the implementation of the CEIS certainly are indicators of top managers' efforts to increase their knowledge of and involvement in operational matters.

3. The time that is required for the principal executive and his immediate assistants to make specific decision increases rapidly with centralized control. Finding I indicated the excessive time (78 days) required in obtaining decisions on PCPs.

Mr. Charles J. Hitch, OSD Comptroller, spoke out on the importance of decentralization:

In large firms a degree of decentralization greater than that which is inevitable is usually believed to be desirable so that the "man-on-the-spot" can decide about many matters-- and be held responsible for them. This not only takes advantage of the man-on-the-spot's familiarity with the details of the problem, but also constitutes a more desirable decision-making process, getting more persons in the habit of using ingenuity and taking responsibility. Indeed this is of major importance for the functioning of the economy, and probably of equal importance in the military services (Ref 27:162).

Practical experience in large corporations has shown that organization growth requires increasing decentralization. It helps to curb the inflexibility and loss of action that afflicts large organizations. Decisions can be made by people who are closer to the point of operational activity and are familiar with the situation. As the Principle of Decentralized Decision states: a decision should be made at the lowest level in the organization that has requisite competence, authority, and prestige (Ref 12:306).

With the Defense budget of about $50 billion, the present thresholds require a high number of OSD decisions on program changes. An analysis was conducted to determine the volume of PCP's being reviewed
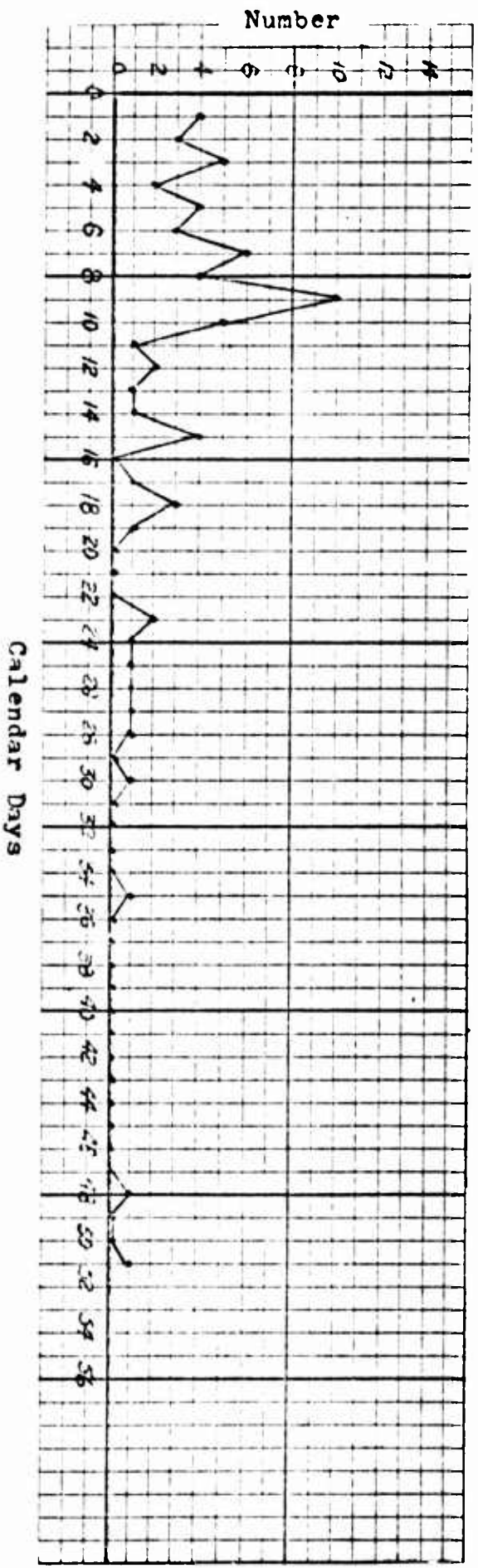
Fig. 15

OSD REPROGRAMMING
APPROVAL TIME

Figure based on above threshold reprogramming actions in US Air Force Procurement and RDT&E Appropriations during FY 1964 and FY 1965

by OSD from all services as a result of the current thresholds. During
CY 1964 a total of 368 PCP's were reviewed and for CY 1965 257 PCP's
had been received as of 16 July. To determine the reduction in PCP's
by raising the thresholds would require a careful examination of each
of the above PCP's. The reason for submittal and the dollar impact on
each program year would have to be established in order to make valid
conclusions. This investigation was found to be beyond the scope of
this report due to time and manpower constraints.

Many of the PCP's were compiled in considerable detail, as an
example a T-39 aircraft PCP consisted of approximately 800 pages. To
process and review a proposal of this size and to perform the type of
analysis being made in OSD requires considerable effort. A careful
review of these documents would require a tremendous workload on key
personnel and would limit their efforts in other areas. Secretary of
Defense McNamara himself admitted the workload is heavy and that more
decisions should be shifted to lower levels (Ref 44:23).

Although this finding has not been rigorously analyzed, the authors
conclude, from this discussion, that the threshold are co low.

Finding IV. There is no serious delay in obtaining formal
Congressional approval of the above threshold reprogramming requests.

The establishment of the reprogramming thresholds requiring
Congressional approval has been described in Chapter IV. As was indi-
cated, these threshold values were established in a subjective manner.
In examining this procedure, it appeared to be an area of unwarranted
delay. Therefore, information was examined to establish the processing
ime of reprogramming requests requiring Congressional approval. It

was found that the appropriate Congressional Committees have recognized
the need to avoid unnecessary delays in the implemention of reprogram-
ming decisions. Accordingly they instructed the Secretary of Defense
that if disapproval has not been received by the 15th day after sub-
mittal, then the DoD should proceed knowing that Congressional approval
has been tacitly given. An examination of the above threshold repro-
gramming requests for the USAF Procurement and RDT&E appropriations for
FY 1964 and 1965 indicate that the average approval time by OSD was 12
days. The longest approval time was 51 days and shortest was the same
day as submitted. This information is contained in Figure 15. Also
Figure 16, opposite the next page, shows the submittal distribution of
these reprogramming requests by calendar months. It is apparent that
the second quarter of the fiscal year is the most active.

It should be recognized that prior to submittal of any above
threshold reprogramming requests, much informal communication takes
place between the services and OSD, as well as, between OSD and the
Congressional Committees concerned. This informal communication usually
determines the receptiveness of each higher echelon to the proposed
request, thereby relegating the formal reprogramming request to merely
a confirmation action. Should the present exceptional rapport between
OSD and the Congressional Committees be allowed to seriously deteriorate
due to changes in OSD or a change in the political climate of Congress,
this Congressional control could greatly jeopardize the timely and
vigorous management of weapons systems.

An average OSD approval time of 12 days with another 15 days during
which Congress could give their disapproval, provides a total lapse of
time which is considered as prudently short as could be expected.
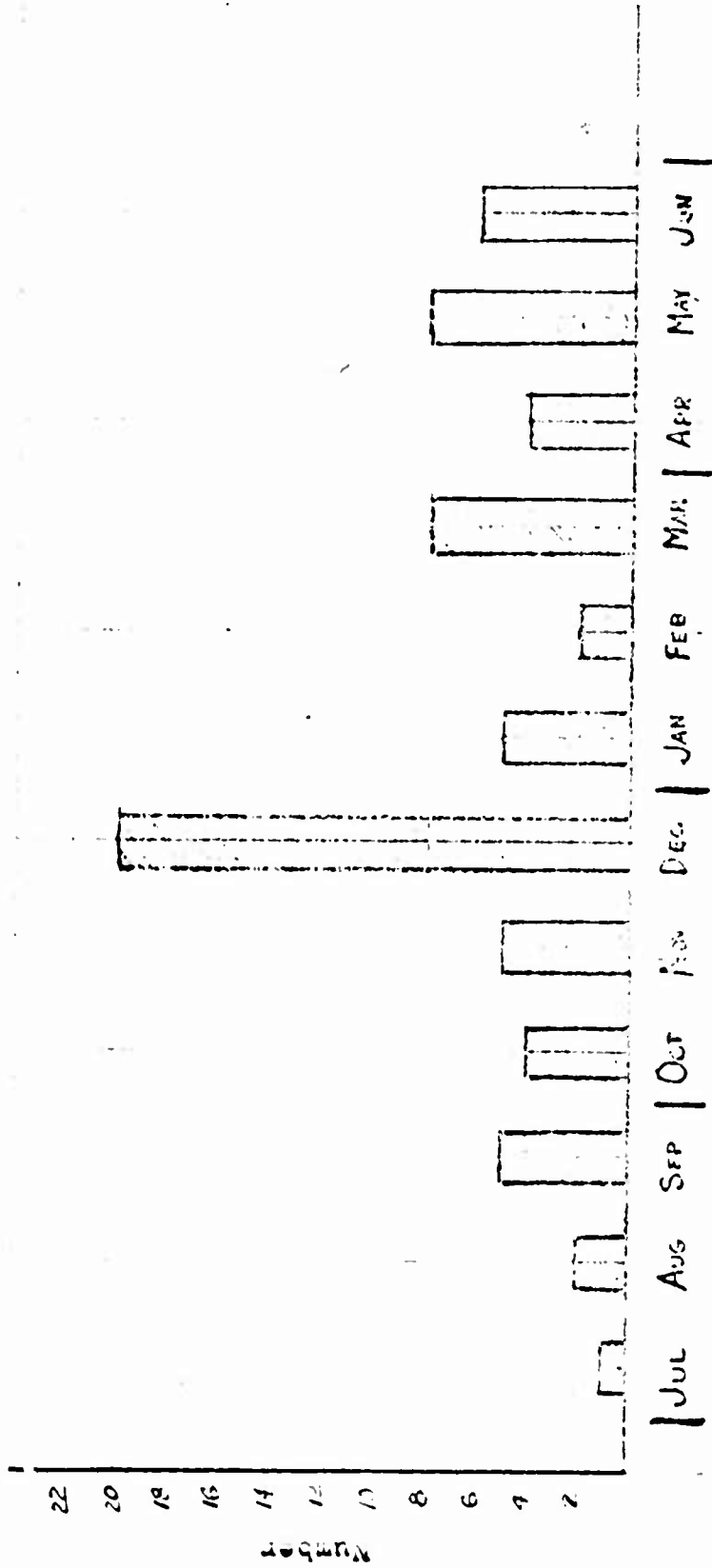
Figure based on above threshold
reprogramming actions in US Air
Force Procurement and RDT&E
Appropriations during FY 1964
and FY 1965

Fig. 16

REPROGRAMMING SUBMITTALS
FY 1964 - 65

Therefore, it is concluded that there is no serious delay in obtaining
formal Congressional approval of the above threshold reprogramming
requests.

Finding V. The reprogramming controls exercised by Congress are
too detailed and inflexible.

The above allegation was made by SPO and Air Staff representatives.
This problem was pointed out in more detail by Secretary Zuckert in his
30 October 1964 memorandum to the Secretary of Defense when forwarding
the Air Force FY 1966 Budget, wherein he stated (Ref 57:1):

> As you know, project control has become increasingly central-
> ized at DoD(OSD) and Congressional level. Centralization at
> the Congressional level has proved to be particularly trouble-
> some in the Other Procurement appropriation. Control is
> exercised on approximately 400 line items. For items such
> as munitions where changing technology, continuing studies of
> optimum loading, etc., result in changed requirement, each
> change must be approved as a reprogramming and reviewed by the
> Congress. The necessarily great number of changes is inevitably
> creating a poor management image for the Defense Establishment.
> Your programming system provides your office the administrative
> mechanism for effective, detailed control. This same degree
> of control, however, should not be extended to the Congress.
> The purposes of the Congress can be served by dealing in a
> higher level of aggregation--for instance, "Munitions," as
> contrasted to a great number of individual line items.

This finding is evaluated against the management principles listed
in the management criteria section. Several aspects of the problem
support the allegation.

First, as pointed out earlier, reprogramming thresholds are based
on controlling line items to the fifth level of breakout of the DoD

Table I
AIR FORCE ABOVE THRESHOLD REPROGRAMMINGS

APPROPRIATION	FY 61		FY62		FY 63		FY 64		FY 65	
	R/R *	LI **	R/R	LI	R/R	LI	R/R	LI	R/R	LI
Procurement										
Aircraft (3010)	25	67	21	72	12	25	4	18	5	19
Missile (3020)	10	55	6	17	8	41	8	35	7	52
Other (3080)	7	82	6	51	10	66	7	58	11	64
Research, Development, Test and Evaluation (3600)	12	137	20	207	21	158	14	123	11	112
Total	54	341	53	347	51	290	33	234	34	247

* Reprogramming Requests
** Line Items

budget. Although these line items must exceed $500,000 in value
(Ref 21:2) to be shown in the DoD budget breakout, the number of line
items involved in a $50 billion DoD budget will number in the thousands.
For example, in the Air Force the number of line items subject to repro-
gramming control in the Procurement and RDT&E appropriation exceed 800.

Second, the degree of reprogramming detail is indicated by the
volume of reprogrammings being forwarded to Congress. While receiving
the testimony of Mr. Hitch during the DoD appropriations hearings for
1964, Senator Russell expressed concern over the large number of such
changes referred to Congress and its inability to review them except in
"a rather sketchy fashion," if at all, particularly when Congress was
not in session (Ref 53:294). Therefore, the number of Air Force repro-
grammings going to Congress was ascertained, and is contained in
Table I. In this table the number of reprogrammings, as well as the
number of line items involved, shows a decline from FY 61 to 65. How-
ever, in FY 65, there were 247 line items reprogrammed which represents
approximately 31 per cent of the total line items in Procurement and
RDT&E. Considering this percentage to be typical of all the Services,
it indicates the magnitude of the reprogrammings being forwarded to
Congress.

Third, in the history of reprogramming thresholds, it was pointed
out that Congress established these reprogramming controls prior to
1961. With the implementation of the DoD Programming System the
emphasis by OSD shifted from control through budgeting to control
through planning and programming. This shift in emphasis by OSD could
account for the decline in reprogramming actions in the Air Force.

Table II

MAXIMUM/MIMIMUM REPROGRAMMINGS - IN DOLLARS

FY-1964-65

Appropriation	FY 1964		FY 1965	
	Max	Min	Max	Min
Aircraft (3010)	136,400	-2800	88,600	200
Missiles (3020)	1,513,900	-200	-171,000	100
Other (3080)	61,000	-654	20,000	50
RDT&E	74,800	-42	-80,000	-100

(Thousands of dollars)

Fourth, the dollar value of the largest and smallest reprogramming action being reported to Congress for FY 64 and 65 in the Air Force Procurement and RDT&E appropriation was determined as shown in Table II. In the Procurement Appropriation the largest amount was $1.5 billion and the smallest $42,000. Of these changes 50 per cent were below $500,000 for FY 1964 indicating the depth of detail being reviewed by Congress.

Fifth, for above threshold reprogrammings Congressional approval is required, while for below threshold approval authority rests with the Service Secretaries. Congressional Committees are exercising this authority in the Congress, however, in the Air Force authority has been delegated to lower levels within the Air Staff. The researchers believe this wide disparity in emphasis on approval authority is indicative of the excessive degree of control imposed by the low Congressional thresholds and the inadequate control by the Air Force as is pointed out in Finding VI.

Sixth, the inflexibility of the reprogramming controls was clearly illustrated during the escalation of the Vietnam war. An urgent requirement existed for the addition of certain general purpose bombs to the inventory. Since these were new items requiring the investment of over $2 million, prior Congressional approval was necessary. This imposed an additional delay in obtaining these urgently needed weapons. The authors strongly believe that the military departments should have the authority necessary to meet immediate requirements of this nature without going to Congress for approval. As suggested by Mr. Zuckert, grouping line items such as bombs, cartridges, etc., into a larger line item category would reduce this inflexibility.

In view of the above discussion and the management postulates expressed by the principle of efficiency of controls, the principle of control responsibility, the principle of organizational suitability, the principle of review, and the principle of action, it is concluded that the reprogramming controls exercised by Congress too detailed and inflexible.

Finding VI. The Air Force has not established organized management methods and procedures to completely implement the DoD Programming System.

The major procedural implementation by USAF is reflected in HOI 27-1, dated February 26, 1965; AFR 27-9, dated May 10, 1965, and changes to the Air Force 375 series of regulations. HOI 27-1 serves as guidance to the Air Staff in fulfilling procedural requirements within Hq, USAF. AFR 27-9 establishes broad policies and procedures for determining, documenting, and controlling Air Force programs consistent with the Programming System. The 375 series regulations have incorporated a limited amount of specific direction pertaining to the System. According to many personnel involved in actual program management, the guidance has not been sufficient or specific enough to align the SPO efforts completely with OSD requirements, resulting in delays for their programs.

The DoD Programming System has certain basic methods and procedures that should be applied to all levels within the Department of Defense. Three of these are: 1) a cost effectiveness evaluation of all new programs and changes, 2) a documentation procedure for handling these

new programs and changes and 3) a method of review by top management
and a focal point for decision-making responsibility.

The Air Force has not used these basic methods in exercising the
below threshold approval authority granted by OSD. Very few cost
effectiveness studies have been conducted to determine the justifica-
tion for below threshold reprogramming of appropriated funds or the
shifting of funds among programs contained in the FYFS&FP. Some of
these changes are of an accounting nature and do not require any
detailed analysis; however, there are many others that should be
evaluated by systems analysis methods. These below-threshold changes
may be considered insignificant in terms of dollars; however, dollars
may not be an accurate measure of the real value of a program. The
shifting of funds which may seem trivial could in reality be a vital
decision.

AFR 27-9 states that below-threshold changes require the approval
of the Secretary of the Air Force, but this authority has been delegated
to various staff agencies where it is now being exercised. The Air
Force has no organized method of documenting below-threshold changes.
No specific format, such as DD Form 1355 (Appendix B), which is used by
OSD for above-threshold changes, has been developed to permit an
orderly accounting of changes made by the Air Force. The changes that
are being made are not centrally filed, therefore, a summary review of
the total operation is virtually impossible.

Many of the reprogrammings actions are initiated at quarterly
reviews. Different categories of reprogramming requests are reviewed
and approved by separate Air Staff agencies. This working procedure

82

provides no focal point for review of the overall effect or interrelationship of these changes.

The full implementation of a uniform method of operation would be the first step in getting more authority delegated to the Air Force and other Services in the form of higher "thresholds." This need for improved management methods was clearly stated by Secretary McNamara:

> . . . However, before we can effectively decentralize we must develop an organizational structure which will permit us to proceed to true decentralized decision-making rather than to management anarchy.
>
> Too often responsibility and authority have been so fragmented by overlapping and diffused organizational arrangements within the Department as to make it virtually impossible to pinpoint responsibility. In such situations decentralization of decision-making authority is unwise if not impossible. As a matter of fact, in these circumstances decisions must be made at higher levels in the Department--often at the very top-- because no one else has the clear authority to make them (Ref 32:5).

The responsibility for the establishment of management methods rests not only with the Air Force but also on OSD. Very little effort, if any, has been exerted by OSD to correct the situation pointed out in the preceeding statement by Secretary McNamara. To continue making centralized decisions for several years without any appreciable effort to correct the causes, poses certain questions as to the ultimate management goals of OSD. In their book, Koontz and O'Donnell were very specific about who is responsible for the delegation of authority when they said, ". . . the responsibility for weak delegation of authority lies with superiors and, primarily, with top managers, who should

furnish an environment of decision for subordinates and select and
train them . . ." (Ref 29:62).

It is concluded that the Air Force has not established organized
management methods and procedures to completely implement the DoD
Programming System.

Finding VII. An analysis of the full impact of obtaining detailed
cost data has not been made by OSD.

In a recent article, Mr. Baldwin (Ref 8:270) stated in a footnote
that:

> Management experts and contractors have pointed out that
> exercise of centralized control by the Department of Defense
> over the services requires information and reports from the
> services. The self-generating and self-defeating nature of
> the work-load imposed becomes apparent. The tighter and more
> centralized the control, the more reports that are required.
> The more authority taken way from the working level, the more
> paper work that is required from those at the working level
> to back up their diminished authority.

The central theme, that the more detail furnished to higher author-
ity merely creates the desire for more detail, was borne out by an OSD
representative during an interview when he stated, "OSD has an insa-
tiable thirst for detail; the more received the more desired." This
desire for detail by OSD is further expressed in DoD Directive 7041.1,
Cost and Economic Information System.

Based on the current OSD emphasis on cost-effectiveness studies
and the principle of efficiency of controls as outlined in the manage-
ment criteria section, it was assumed that an analysis of the full
impact of obtaining detailed cost data had been made by OSD. This
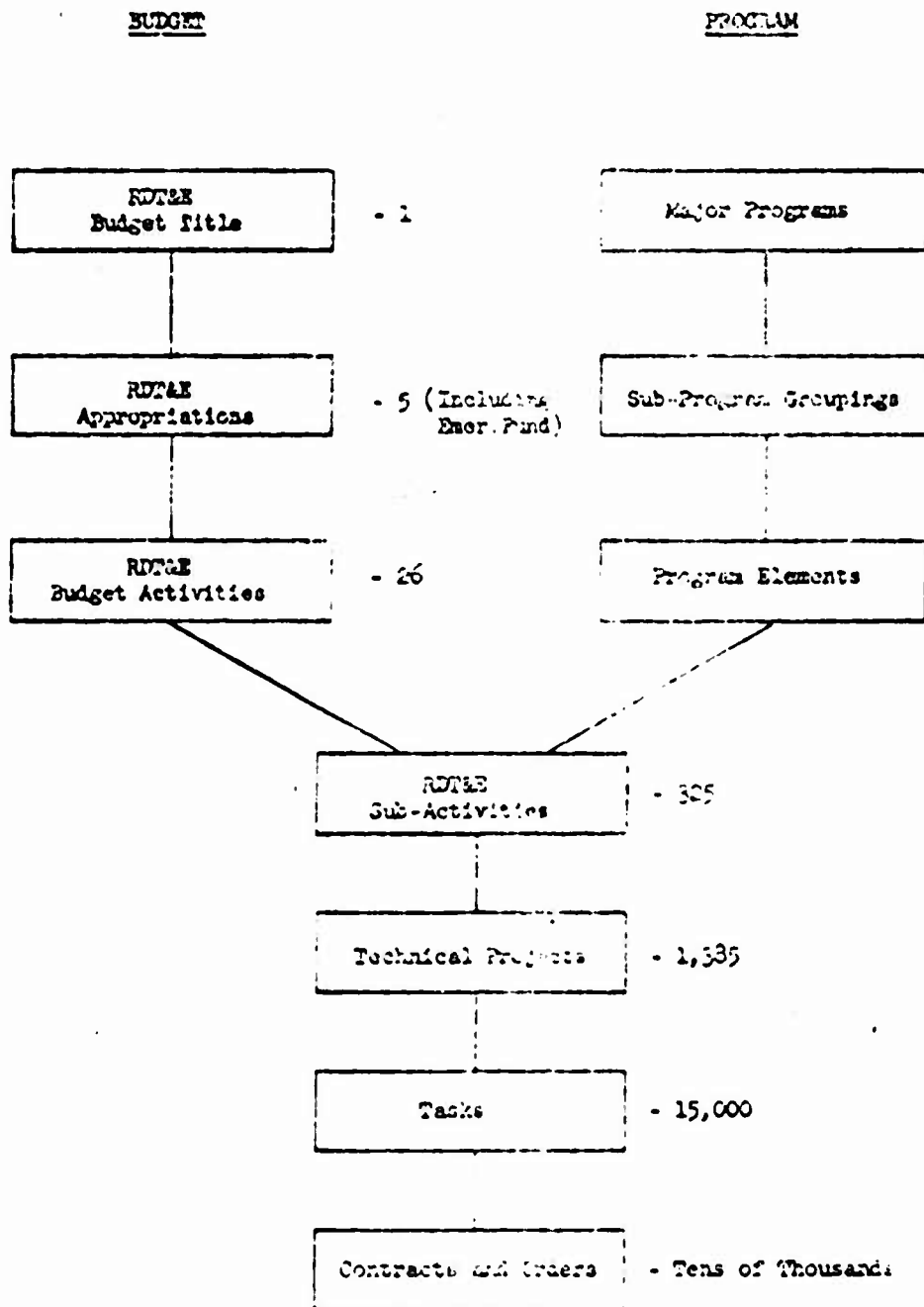
Fig. 17

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION
FLOW CHART

assumption was based on Mr. Anthony's statement, ". . . any piece of management information is justified only if its value exceeds the effort required to collect it" (Ref 6:316).

On investigation, it was found that OSD had not made any formal analysis of the value of cost data versus the cost of obtaining it.

Therefore, it must be concluded that an analysis of the full impact of obtaining detailed cost data has not been made by OSD.

Finding VIII. The DoD Programming System does not completely link planning/programming with budgeting.

The DoD Programming System is primarily concerned with the planning of programs contained in the FYFS&FP and the fulfillment of these plans within the limitations of the budgeting processes. Planning and programming in DoD is accomplished on the basis of the programs in the FYFS&FP and may be thought of as managerial accounting. Budgeting is based on the appropriation structure of the budget and is essentially financial accounting. These two separate controls in DoD have been recognized in the business environment and the major differences between them have been explained as follows:

1. The objective of management accounting is to help insiders, while the objective of financial accounting is to furnish information to outsiders.

2. Financial accounting encompasses the whole enterprise, while management accounting is more interested in its parts.

3. Financial accounting must be done, while management accounting is optional. Financial accounting must be collected to report on stewardship, but management accounting is justified only if its management value exceeds the cost of its collection.

4. The emphasis on financial information is more on accuracy
   and less on timeliness while the emphasis on management
   information is more on timeliness and less on accuracy
   (Ref 6:315-316).

With these important differences in mind it is appropriate to
observe the differences in the planner's and comptroller's efforts in
DoD. First, a difference is observed in the end product. The planners
primarily establish the FYFS&FP through a compilation of program
elements, whereas the comptrollers establish the budget through a
financial plan for the current year. Second, a difference exists in the
procedures used for making changes. The planners change the FYFS&FP
principally by PCP action: whereas, the comptrollers change current and
past year funds by reprogramming actions. Third, a difference is
observed in the basic unit with which each work. The planners work in
terms of a program element, whereas, the comptrollers work with appro-
priation line items.

While the program element is built on appropriation line items as
may be seen in Figure 17, this RDT&E flow chart shows the two channels
of control, one for the planners and the other for the comptrollers.
While it is recognized that the two separate channels come together at
OSD for the purposes of planning and controlling, they are still widely
separated at the SPO. At the SPO, management involves monitoring the
execution of plans and the management of resources. Since the SPO is
engaged in active management, the SPD must have a financial base from
which to manage his program. A compilation of appropriations provides
the financial base for the near-term years and the FYFS&FP provides the
financial base for the first program year and beyond. As a result, the
SPO is controlled to two different financial plans. Therefore, while

the gap between planning/programming and budgeting may not be evidenced at OSD, the lack of correlation of these phases has a major impact at the SPO level.

Further evidence that the DoD Programming System does not completely link planning/programming with budgeting is found in its time cycles. Under the current procedures, the DoD Programming System requires an annual preparation and submittal of PCP's by 15 June. This cut-off date for PCP submissions is during the tentative apportionment made by OSD/BOB and well before final apportionment in August or September. This time sequencing is shown in Figure 5, see page facing 29. Therefore, the planners are forced to plan the next budget year without complete knowledge of what their current year budget will be. This dilemma for the planners is cause for much consternation between planners and comptrollers, which further widens the gap between planning/programming and budgeting.

As a result of this discussion, it is concluded that the DoD Programming System does not completely link planning/programming with budgeting.

Finding IX. The DoD Programming System is not responsive to urgent changes in weaponry requirements.

It has been charged in periodicals that, in essence, nothing new in the way of a major weapon system has been developed since Mr. McNamara has come into office (Ref 8:262-263). While this charge will not be examined, it was considered appropriate to determine if the DoD Programming System has been responsive to urgent changes in weaponry requirements, such as the escalation of the Vietnam War. Therefore,
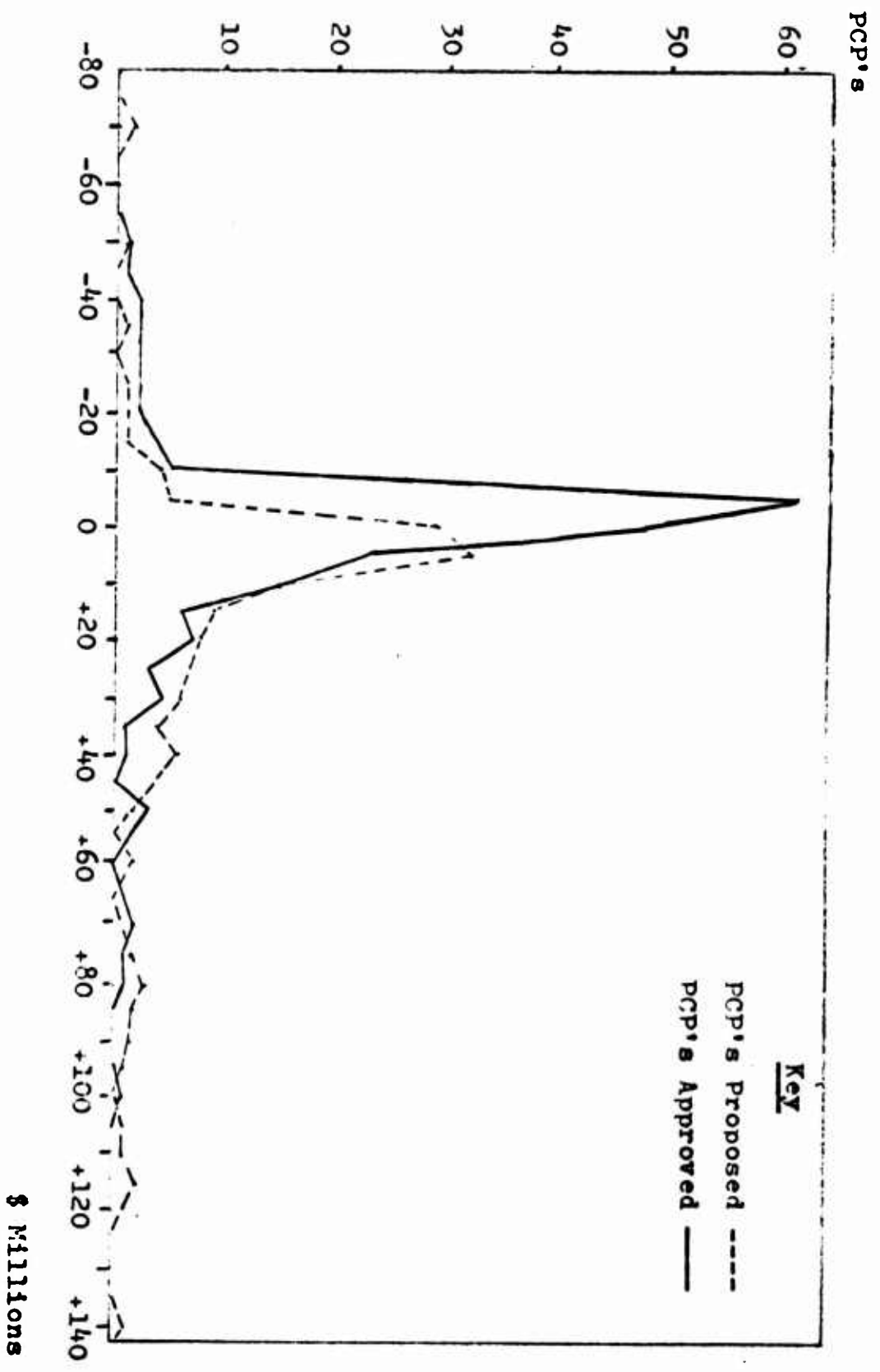
Fig. 18
PCP's – PROPOSED vs APPROVED – CY 1963

Key
PCP's Proposed ----
PCP's Approved ——

PCP's

$ Millions

during an interview with Mr. Hitch, who originated and implemented the
DoD Programming System, the question of responsiveness was raised. Mr.
Hitch advised that the current DoD Programming System could not fully
respond to the weaponry requirements for Southeast Asia mainly because
the System was too closely tied to the planning of the budget year, and
was too dependent on the budget cycle. Rather, he anticipated that most
of the necessary decisions would be reflected in memoranda issued by
the Secretary of Defense. These decisions would later be confirmed as a
bookkeeping action either by reprogrammings or simplified PCP's.

The lack of responsiveness of the DoD Programming System was also
expressed in House Report 528, wherein the Committee on Appropriations
called on "the DoD to institute procedures designed to maximize the
deployment of new and better weapons and equipment with the operating
forces" (Ref 52:45).

To determine OSD's response to proposed changes, an analysis was
conducted of all Air Force PCP's submitted in CY 1963 and CY 1964. A
comparison between dollars requested and dollars approved revealed that
in CY 1963, OSD approved $2.51 billion of $4.62 billion requested or
54 per cent. In CY 1964, OSD approved $0.502 billion of $1.04 billion
requested or 48 per cent. The difficulty in obtaining additional money
above that approved in the FYFS&FP is evident in these statistics. A
more detailed breakout of the dollar value of PCP's is shown in Figure
18.

From the above discussion and the conclusion reached in Finding I,
it is concluded that the DoD Programming System is not responsive to
urgent changes in weaponry requirements.

Finding X. Long-range planning by OSD has been limited by their management of near-term operations.

Long range planning for an organization like OSD must extend beyond the expected life of current weapons systems in the inventory or acquisition phase. The period of time a weapon is under development and in the inventory will vary. For example, the estimated life of the following systems is: B-47 over 15 years, B-52 over 20 years, F-102 over 10 years, Atlas over 10 years, and C-47 over 30 years. Realizing that the newer weapons systems may become obsolete more rapidly than those mentioned above, the interval of planning will still extend from 10 to 25 years ahead based on the Commitment Principle which states: "Planning should cover a period of time in the future necessary to foresee, through a series of actions, the fulfillment of commitments involved in a decision" (Ref 29:202).

Present R&D effort should be directed toward the development of the second generation of weapons. To plan only through the life of present and first generation weapons does not provide the proper R&D goals. Long-range planning must be concerned with formulating overall strategy and the necessary implementing weapons beyond the current generation. An example of this type of planning was the development of the atomic bomb. After this achievement, our rivals had to counter this type of warfare. Since the early 1950's, we have been responding to our competitors' capability, as an example, the ICBM development.

Beyond the Joint Long-Range Strategic Studies, which extends for 14 years, only limited planning is being accomplished in OSD. Some detailed effort is being made in the mid-range planning area as

reflected in the FYFS&FP but even this only reflects those acquisition phases of a program that are approved. That is, if a program element is approved for R&D only, no production costs are forecasted and put in the FYFS&FP. Therefore, the FYFS&FP is merely a spendout plan and not a true mid-range planning document.

Not only are OSD personnel expending minimum effort on long-range planning as presently defined but also this planning interval does not extend far enough into the future to permit adequate definition of present R&D goals (Ref 52:45). Therefore, it must be concluded that the majority of OSD effort is being applied to near-term planning through analyzing and rendering decisions on PCP's, reprogramming actions and annual budget formulation. This effort is also substantiated by the conclusions reached in Findings I, III, V, and IX. Hence long-range planning is not being adequately accomplished by OSD.

Conclusion. In this section ten problem areas attributable to the DoD Programming System were examined. Two of these, OSD growth and Congressional reprogramming approval time were found not to be problems. The other eight findings, however, do indicate difficiencies. These were: excessive decision time for PCP's, PCP and reprogramming thresholds too low, implementing procedures are inadequate, cost data is too detailed, a gap still exists between planning/programming and budgeting, lack of responsiveness and present planning does not extend far enough into the future. These problem areas emphasize the amount of detailed effort expended by OSD in controlling weapons acquisition. This type of management control has necessitated the concentrated attention of the OSD staff leaving little time for other top management functions such as

long-range planning. The authors strongly believe that the results of these findings support the general hypothesis:

Current problems with the DoD Programming System has caused OSD to be preoccupied with detailed management of short- and mid-range goals to the detriment of long-range planning and general policy guidance.

Summary

An evaluation of the DoD Programming System can be made through the use of recognized and accepted management principles. Considering these principles, five major accomplishments are attributable to this System. There are also ten problem areas that are stated as findings which are used to support a general hypothesis that the DoD Programming System deficiencies are requiring an excessive amount of OSD time.

VI. Conclusions and Recommendations

The crystallization of the thinking of the researchers is presented in the form of conclusions and recommendations for the improvement of the DoD Programming System.

General

This report contains explanation of the DoD Programming System and an evaluation of the effectiveness of the System as a management tool in the weapons acquisition process.

Management pressures and political influences led to the formulation of a new management system in the Department of Defense (DoD). In 1961-62, Secretary of Defense Robert S. McNamara introduced a system to integrate the planning-programming-budgeting phases of defense decision-making. While the basic concepts have not changed, some adjustments were necessary:

1. Prior to the preparation of the budget an annual comprehensive review of the Five Year Force Structure and Financial Program (FYFS&FP) is now required aside from the review of program changes made on a continuous basis.

2. The annual budget is based on the Joint Strategic Objectives Plan (JSOP) and Tentative Force Guidance (TFG) rather than compiled from the FYFS&FP.

3. Simplified PCP's have been implemented to handle minor changes and adjustments to the FYFS&FP.

4. Functional reviews are conducted to examine an area that may include several different Programs and Military Departments.

Planning is the first phase of the decision-making process in the Defense establishment and the key participants are the Joint Chiefs of Staff and the planners of the military departments. The programming phase is designed to "bridge the gap" between military planning on the one hand and preparation of the annual budget on the other. The JSOP plays a major role in tieing the planning and programming phases together. Eight military programs, each with a common mission or purpose form the basic structure of the DoD Programming System. The FYFS&FP is the DoD official program and the Program Change Proposal (PCP) is the basic document used to change it. Certain "thresholds" have been established beyond which the Office of the Secretary of Defense (OSD) retains decision authority on proposed changes to the FYFS&FP.

Budgeting, like most other human created activities has undergone the process of evolution. Budgeting as known today was started by the Budgeting and Accounting Act of 1921. This Act was revised in 1950. The first Secretary of Defense, Mr. Forrestal, developed an entirely new and uniform budget structure for the services which still exists. The preparation of the budget is an annual process which requires the continual efforts of DoD. The history of reprogramming thresholds as established by Congress shows a definite trend in the tightening of Congressional budgetary control.

An evaluation of the DoD Programming System can be made through the use of recognized and accepted management principles. Considering these principles, five major accomplishments are attributable to this System. There are also ten problem areas that are stated as findings which support the general hypothesis:

Current problems with the DoD Programming System has

caused OSD to be preoccupied with detailed management of
short- and mid-range goals to the detriment of long-range
planning and general policy guidance.

Accomplishments

Without exception, every manager interviewed believed that the DoD
Programming System was a much better approach to managing weapon systems
than any previous approach. The following significant improvements
resulted from the implementation of the System.

1. Integrated DoD planning by missions.

2. Integrated DoD planning with programming.

3. Established an approved mid-range financial management
   baseline for programs.

4. Established a decision-making procedure using cost-
   effectiveness studies to support decisions.

5. Implemented a uniform method of reviewing the Services'
   programs on an integrated basis.

Conclusions

The conclusions presented in this report identify not just the
symptoms that were frequently described but rather some of the basic
causes of the problems troubling the managers actually working with this
System. These basic causes have been examined. It is expected that any
future studies on this system will substantiate the conclusions reached
in this report.

1. Under the provisions of the DoD Programming System, decisions
   on PCP's are not being made in a timely manner.

2. The processing time of PCP's is not related to the rapid
   manpower growth in OSD.

3. The current PCP thresholds demand an excessive amount of daily detailed control of program elements by OSD.

4. There is no serious delay in obtaining formal Congressional approval of the above threshold reprogramming requests.

5. The reprogramming controls exercised by Congress are too detailed and inflexible.

6. The Air Force has not established organized management procedures to completely implement the DoD Programming System.

7. An analysis of the full impact of obtaining detailed cost data has not been made by OSD.

8. The DoD Programming System does not completely link planning/programming with budgeting.

9. The DoD Programming System is not responsive to urgent changes in weaponry requirements.

10. OSD has been controlling short- and mid-range plans to the detriment of its real management purposes which are to provide policy guidance to the Departments and Agencies through the establishment of long-range plans and near-term Research and Development objectives.

Recommendations

These recommendations are offered to further improve an already effective DoD Programming System. Areas requiring additional study are also identified. It is realized that these recommendations involve difficult problems--difficult of analysis, difficult of solution.

Specific Recommendations. The specific recommendations are:

1. The planning-programming-budgeting functions should be further integrated.

This integration effort has been in process since the inception of

the DoD Programming System and each year improvements have been made. A
study should be made, however, of all the factors bearing on the problem
not only as they interrelate with each other but also from the stand-
point of relevancy of each factor. The time cycle could be improved if
at the time the Tentative Force Guidance is issued on 1 April, there was
also issued a Tentative Apportionment Guidance. This would permit the
PCP's to be based on budget information in advance, instead of receiving
it after the PCP's have already been prepared. Also consideration should
be given to broadening the definition of line items from specific com-
ponents to common categories of components. At the same time, the
management area covered by a program element should be defined as a line
item during its development and acquisition. These suggestions should
be considered as only partial solutions to a more complex problem.

2. The Services should develop a capability, at appropriate
   echelons, to uniformly evaluate, approve, and control
   below-threshold PCP's and reprogrammings.

At the present time, the Services are making below-threshold
changes using many diverse procedures, which allows these decisions to
be made without determining the impact to the overall Service program.
Procedures should be established to make the approval of below-threshold
changes in a more logical and integrated way. The Service Secretaries
should have a procedure similar to OSD's to approve the below-threshold
changes. The use of documentation similar to that used by OSD, i.e.
PCP's and Formats B, would be helpful in developing a more precise and
responsible decision-making process in the Air Force. Authority for
making changes below certain thresholds set by the Service Secretaries,

should be delegated to each major command. This authority should be exercised by commanders and not delegated to staff levels. At the time of submittal of these requests a cost-effectiveness study presenting alternative solutions should be included. The establishment of such uniform procedures are a prerequisite to raising current OSD thresholds and obtaining greater decision authority.

3. An analysis should be made to determine the impact of increasing the OSD and Congressional thresholds for PCP's and reprogrammings.

This recommendation logically follows the successful implementation of Recommendation 2. A detailed analysis has never been made to determine the proper level of either the PCP or reprogramming thresholds. There are many interrelationships for which sensitivity analyses will have to be made. For example, changing the definition of line items could, in effect, increase the reprogramming thresholds. This study was not oriented toward determining the correct level of these thresholds, however, personal interviews and supporting evidence indicate that they are too low.

4. OSD should delegate the management of short-range plans to the Services and devote its major effort to providing policy guidance through the establishment of long-range plans and near-term Research and Development objectives.

The Department of Defense is too large an operation to be doing detailed planning for only five to eight years into the future. Even here the emphasis is on only the approved portion of the programs in the FYFS&FP. It is realized long-range planning is one of the most

difficult tasks a manager has to do. He tends to occupy himself with those tasks he understands best--which, in essence, is today's problems. Before OSD can extricate itself from the daily management of short-range plans, however, the problems associated with the three previous recommendations must be resolved.

Recommended Studies. It is further recommended that additional studies be made in the following areas:

1. Investigate the impact of the DoD Programming System on Defense contractors.

2. Conduct marginal analyses to determine the value of obtaining detailed and precise cost estimates.

3. Determine the value of establishing Service thresholds at Command level for PCP's and reprogrammings.

4. Examine the procedures which the Services have developed to implement the DoD Programming System with the purpose of identifying and synthesizing the best into a uniform procedure.

Bibliography

1. AFM 172-1U. <u>Historical</u> <u>and</u> <u>Statutory</u> <u>Basis</u> <u>for</u> <u>the</u> <u>Air</u> <u>Force</u> <u>Budget</u>. Washington: Department of the Air Force, January 1961.

2. AFSEM 375-4. <u>System</u> <u>Program</u> <u>Management</u> <u>Manual</u>. Washington: Headquarters Air Force Systems Command, March 1964.

3. AF Systems Command. <u>Management</u> <u>Procedures</u> <u>for</u> <u>Exploratory</u>, <u>Advanced</u> <u>and</u> <u>Operational</u> <u>Systems</u>. Washington: AF Systems Command, 1965.

4. Air University. <u>Air</u> <u>Force</u> <u>Planning</u> <u>and</u> <u>Programming</u>. Air Command and Staff College Correspondence Course 3A, Supplementary Text for Unit X. Alabama: Extension Course Institute, February 1960, Reprinted April 1964.

5. Allen, Louis A. <u>The</u> <u>Management</u> <u>Profession</u>. New York: McGraw-Hill Book Company, 1964.

6. Anthony, Robert H. <u>Management</u> <u>Accounting</u> <u>Text</u> <u>and</u> <u>Cases</u> (Revised Edition). Homewood, Illinois: Richard D. Irwin, Inc., 1960.

7. Asken, Harold. <u>Significance</u> <u>of</u> <u>Operating</u> <u>Costs</u>. Speech given at Absecon, New Jersey, June 7, 1965.

8. Baldwin, Hanson W. "Slow-Down in the Pentagon." <u>Foreign</u> <u>Affairs</u>, <u>43</u>:262-280 (January 1965).

9. Carter, Wendell E. <u>The</u> <u>DOD</u> <u>Program/Budget</u> <u>System</u>. Presentation to School of Systems & Logistics, System Program Management Course at Wright-Patterson Air Force Base, Ohio, 6 January 1965.

10. Cleland, David I. <u>The</u> <u>Origin</u> <u>and</u> <u>Development</u> <u>of</u> <u>a</u> <u>Philosophy</u> <u>of</u> <u>Long-range</u> <u>Planning</u> <u>in</u> <u>American</u> <u>Business</u>. Ohio State Dissertation, 1962.

11. Cordiner, Ralph J. <u>New</u> <u>Frontiers</u> <u>for</u> <u>Professional</u> <u>Managers</u>. New York: McGraw-Hill Book Company, Inc., 1956.

12. Davis, R. C. <u>Fundamentals</u> <u>of</u> <u>Top</u> <u>Management</u>. New York: Harper & Brothers, Publishers, 1951.

13. Department of the Air Force Pamphlet. <u>Program</u> <u>Budget</u> <u>Control</u>. Washington: USGPO, June 1962.

14. DoD Directive 7045.1. <u>Program</u> <u>Change</u> <u>Proposal</u> <u>System</u>. Washington: Department of Defense, April 1962.

15. DoD Directive 7045.1. DoD Programming System. Washington: Department of Defense, October 1964.

16. DoD Instruction 7045.2. DoD Programming System; Procedures for Program Changes. Washington: Department of Defense, January 1965.

17. DoD Instruction 7045.4. DoD Programming System; Procedures for Updating the Five-Year Force Structure and Financial Program (FYFS&FP). Washington: Department of Defense, January 1965.

18. DoD Instruction 7250.5. Report on Reprogramming of Appropriated Funds. Washington: Department of Defense, December 1955.

19. DoD Instruction 7250.5. Report on Reprogramming of Appropriated Funds. Washington: Department of Defense, October 1959.

20. DoD Instruction 7250.10. Implementation of Reprogramming of Appropriated Funds. Washington: Department of Defense, March 1963.

21. DoD Instruction. P-1 Budget. Washington: Department of Defense, May 1959.

22. Dowd, James. "The Board of Directors Looks at Long-Range Planning." The Controller, 30:537-540 (November 1962).

23. Fox, William M. The Management Process. Homewood, Illinois: Richard D. Irwin, Inc., 1963.

24. Haimann, Theo. Professional Management Theory and Practice. Boston: Houghton Mifflin Company, 1962.

25. Heflin, Woodford A. The United States Air Force Dictionary. Alabama: Air University Press, 1956.

26. Hitch, Charles J. Decision-Making in the Department of Defense. Speech given at Berkley, California, April 5, 1965.

27. Hitch, C. J. and McKean, R. H. The Economics of Defense in the Nuclear Age. Cambridge, Massachusetts: The Colonial Press, Inc., 1960.

28. HOI 27-1(Draft). DoD Programming System. Washington: HQ United States Air Force, February 1965.

29. Koontz, Harold, and Cyril O'Donnell. Management: A Book of Readings. New York: McGraw-Hill Book Co., 1964.

30. Mahon, George H. Letter to Defense Secretary McElroy. Washington: Committee on Appropriations, 26 August 1958.

31. Mahon, George H. Letter to Defense Secretary McNamara. Washington: Committee on Appropriations, 20 March 1961.

32. McNamara, Robert S. "Managing the Department of Defense." *Civil Service Journal*, 4:1-8 (April-June 1964).

33. Mee, John F. *Management Thought in a Dynamic Economy*. New York: New York University Press, 1963.

34. Memorandum. *Program and Budget Reviews*. Washington: Office of the Secretary of Defense, December 23, 1964.

35. Novick, David. *Long-Range Planning in the Department of Defense*. RM 3359, Santa Monica: The RAND Corporation, November 1962.

36. Novick, David. *Problem Budgeting in the Department of Defense*. Memorandum RM-4210-RC. Santa Monica: The RAND Corporation, September 1964.

37. Peck, M. J. and Scherer, F. M. *The Weapons Acquisition Process: An Economic Analysis*. Boston: Harvard University, 1962.

38. PMI 1-12. *Quarterly Program Reviews*. Washington: AF Systems Command, December 1964.

39. PMI 6-20. *Review and Control of Program Documentation*. Washington: AF Systems Command, October 1964.

40. Ream, Norman J. "The Need for Compact Management Intelligence," in *Management Control Systems*, edited by D. G. Malcolm et al. New York: John Wiley & Sons, Inc., 1960, pp. 82-94.

41. Ries, John C. *Management of Defense*. Baltimore: John Hopkins Press, 1964.

42. Roback, Herbert. "Congressional Interest in Weapons Acquisition." *Armed Forces Management*, 9:40-44 (February 1963).

43. Schriever, B. A. *In Systems Acquisition Today, Management is the Factor*. Speech given at AFSC Management Conference, Monterey, California, May 3, 1962.

44. "Secretary of Defense Wants Decision-Making Shift to Lower Echelons," *Army-Navy-Air Force Journal and Register*, Vol. 100, No. 30, March 23, 1963.

45. Seligman, Daniel. "McNamara's Management Revolution." *Fortune*, 69:118-124 (July 1965).

46. Sloan, Alfred P., Jr. *My Years with General Motors*, edited by J. McDonald with C. Stevens. Garden City, New York: Doubleday & Co., Inc., 1964.

47. Smithies, Arthur. *A Conceptual Framework for the Program Budget*. Memorandum RM-4271-RC. Santa Monica: The RAND Corporation, September 1964.

48. U. S. Congress, House, Committee on Appropriations: <u>House Report No. 493</u>, 84th Congress, 1st Session, 1955.

49. U. S. Congress, Senate, Committee on Appropriations: <u>Senate Report No. 476</u>, 85th Congress, 1st Session, 1959.

50. U. S. Congress, House, Committee on Appropriations: Hearings before a Subcommittee. <u>Department of Defense Appropriations for 1963, Part 2</u>. 87th Congress, 2nd Session, 1962.

51. U. S. Congress, House, Committee on Appropriations: Hearings before a Subcommittee. <u>Department of Defense Appropriations for 1964, Part 1</u>. 88th Congress, 1st Session, 1963.

52. U. S. Congress. <u>House of Representatives Report No. 528</u>. Department of Defense Appropriation Bill, 1966. 89th Congress, 1st Session. Washington: U. S. Printing Office, 17 June 1965.

53. U. S. Congress, Senate, Committee on Appropriations: Hearing before a Subcommittee. <u>Department of Defense Appropriations for 1964</u>, 88th Congress, 1st Session, 1963.

54. U. S. Department of Defense. <u>DoD Annual Report for Fiscal Year 1961</u>. Washington: GPO, 1961.

55. U. S. Department of Defense. <u>DoD Annual Report for Fiscal Year 1963</u>. Washington: GPO, 1963.

56. United States Statutes at Large, <u>73 Stat</u> 322 (Public Law 86-149).

57. Zuckert, Eugene. <u>Memorandum to Secretary of Defense - FY 1966 Budget</u>. Washington: Office of the Secretary of Air Force, 30 October 1964.

Appendix A

Glossary

Addendum budget - This is a budget that is prepared after the first draft of the Presidential memoranda has been submitted on 30 September. It contains those PCP's which either were not considered before or have changed since the memoranda was finalized. The items in this Addendum Budget are considered during the period between 1 October and the final submittal of the defense budget in December. Changes are made through Subject Issues.

Air Force Objective Series Papers (AFOS Papers) - Information on a wide variety of subjects defining USAF concepts and positions are known collectively as the Air Force Objectives Series Papers. These papers are continuous documents which project 20 years into the future and are kept current by constant revision. The AFOS Papers provide data and USAF positions to the JLRSS, JSOP and to all USAF plans.

Allocation - An authorization by a designated official of a department making funds available within a prescribed amount to an operating agency for the purpose of making allotments.

Allotment - An authorization granted by an operating agency to another office to incur obligations within a specified amount pursuant to an appropriation or other statutory provision and subject to specific procedural, bookkeeping and reporting requirements.

Apportionments - A determination as to amount of obligations which may be incurred during a specified period. Does not make funds available.

Appropriation - An authorization by an act of Congress to make payments out of the Treasury for specified purposes.

Authorization - That which has been authorized--the instrument or document that grants a right, power, or thing.

Below Threshold Changes - Changes below OSD-prescribed thresholds approved by the heads of DoD components. These may be made only when the approved TOA for the DoD component is not exceeded for any year. When the aggregate of these changes for a program year together with an additional change proposed equals or exceeds a threshold, a PCP must be submitted.

Budget Authorization - The approved financial program upon which the recipient can plan for the present as well as the future to enable him to accomplish his mission in an orderly and businesslike manner.

Appendix A

Budget Call (Annual Call) PMI 1-12 - A request to subordinate commands for listing budgetary needs.

Budgetary Process - The process of formulation, review and approval, and execution of a budget.

Bureau of Budget (BOB) - An Executive Branch office that works directly with the President in the preparation of the annual budget. BOB reviews each Department's budget with the Department following the guidance issued by the President. In addition BOB issues the release of funds after working out the apportionment of the approved budget by Congress.

Commitment - An amount administratively reserved for future obligations against available funds and recorded as such in the accounting records.

Defense Intelligence Agency (DIA) - This agency organizes, directs, manages and controls DoD intelligence resources assigned, and reviews and coordinates intelligence functions retained by the military departments (A-N-AF). DIA is responsible to the Secretary of Defense through the JCS and prepares the Intelligence Annex to Joint Plans.

Department of Defense (DoD) - The entire military establishment of the United States.

Development Plan (DP) - This plan is in the form of an outline of the objectives of a Definition Phase of a new weapon system. It establishes the framework for the eventual development of a specific detailed plan.

DoD Components - Includes all Military Services and Agencies responsible to the Secretary of Defense. Agencies include such organizations as the Defense Supply Agency and NASA.

DoD Programming System - The methods and procedures for establishing, maintaining, and revising the DoD Five-Year Force Structure and Financial Program (FYFS&FP).

Expenditure - Payment for service and materials.

First Program Year - During the first six months of the current fiscal year, the first program (fiscal) year is the budget year. During the last six months of the current fiscal year, the first program year is the budget year plus one. (A simple method of determining the first program year is to add two to the current calendar year).

Five-Year Force Structure and Financial Program (FYFS&FP) - A Top Secret summation prepared by OSD of the individual approved programs of

Appendix A

the military departments and other DoD components. The departments
and DoD components publish their program in detailed program
element terms, to include a Program Element Summary Data form and
Descriptive Data Sheet for each element, supported by the Materiel
and Construction Annexes.

Format A - After submission of a PCP, all participating review compo-
nents, both the Services and OSD staff, will submit their evalua-
tion and recommendations on a Format A. A copy of this form is in
Appendix D.

Format B - All decisions on PCP's will be transmitted on a Format B
signed by the Secretary of Defense or his Deputy. The one excep-
tion would be the use of Subject Issues for rendering a decision
on PCP's. A copy of this form is in Appendix E.

Government Accounting Office (GAO) - This Office is the Congressional
"watchdog" over the expenditures of funds by the Agencies and
Departments of the Executive Branch. They certify that appro-
priated monies are used properly.

Joint Chiefs of Staff (JCS) - A body within the Department of Defense
consisting of the Chief of Staff, United States Army; the Chief
of Naval Operations; the Chief of Staff, United States Air Force;
and a chairman, serving as the principal military advisers to the
President; the National Security Council; and the Secretary of
Defense; and authorized to conduct certain military operations
direct, such as those of continental air defense.

Joint Intelligence Estimate for Planning (JIEP) - The DIA prepares
JIEP's for JCS approval and publication. These JIEP's are the
principal intelligence basis for the development of strategic
plans and policies. These plans cover: the short- and mid-range
period, one to ten years into the future, and is published on
1 June annually; the long-range period, ten to 14 years into the
future, and is published on 15 January annually; and, the treaty
organizations, of which the United States is a member, is published
on 1 August annually.

Joint Long-Range Strategic Study (JLRSS) - This study provides strategic
appraisals which will assist in the development of military
policies, plans, and programs.

Joint Strategic Capabilities Plan (JSCP)- This plan translates national
objectives into military objectives attainable with actual, on-hand
or scheduled for near delivery, capabilities. It also provides
guidance for: short-range plans; military aid to allies; and
development of NATO and allied plans. It issues the directive to
"Specified" and "Unified Commanders" for operation in cold, limited
and general war.

Appendix A

Joint Strategic Objectives Play (JSOP) - A mid-range objectives plan which translates US national objectives and policies for the time frame 5 to 8 years in the future into terms of military objectives and strategic concepts and defines basic undertakings for cold, limited, and general war which may be accomplished with the objective force levels.

Line item - A line item is a complete description entry regarding an item or number of like items on any form, record, or other document, including quantity, unit of issue, stock or part number, and description.

Logistics Guidance - Logistics guidance is the costing of the Joint Strategic Objectives Plan by each respective Service, JCS, or Assistant Secretaries of Defense which includes the rationale for the changes and analyses of their costs and manpower implications.

Near-term years - This covers an interval starting with the current fiscal year, the budget year and the first program year.

Obligation - The amount of an order placed, contract awarded, service received, etc., which legally reserves funds.

Office of the Secretary of Defense (OSD) - This is the immediate staff working directly for the Secretary of Defense, and does not include all the super-agencies assigned to the Secretary of Defense.

Preliminary Technical Development Plan (PTDP) - An unapproved Technical Development Plan.

Presidential Memoranda - Memoranda prepared by the Secretary of Defense which provide the explanation and rationale to the President on major force and other program decisions made in the defense area on which the defense program is based. These memoranda are forwarded to the President early in October and, among other things, provide the background for the defense budget to be submitted to the President in December.

Procurement Authorization - A document issued to implement approved buying programs within fund availability.

Procurement Cycle - The Procurement Cycle represents the total time for accomplishing the following milestones: commitment, obligation and expenditure for an item of equipment or system.

Program - A combination of program elements designed for the accomplishment of a definite objective or plan which is specific as to the time phasing of what is to be done and the means proposed for its accomplishment. The major programs of the DoD Programming System are the numbered programs in the DoD FYFS&FP.

Appendix A

Program Change Proposal (PCP) - A formal document which proposes an adjustment to the FYFS&FP of a magnitude requiring Secretary of Defense approval. Changes may be proposed either to program elements or to Materiel or Construction Annex items, whichever is most appropriate under the circumstances.

Program element - An integrated force or activity--a combination of men, equipment and facilities (together with their cost) whose effectiveness can be directly related to national security objectives.

Program year(s) - This is the interval of time starting with the first program year through the five and eight years covered in the FYFS&FP.

Proposed System Program Plan (PSPP) - An unapproved System Program Plan.

Reclama - An action in contest of a decision by the Secretary of Defense.

Reprogramming - The shifting of appropriated funds among programs is referred to as reprogramming. It can apply to current and previous years funds.

Requirements Studies - These Studies are prepared by the JCS staff or the Services and are for the purpose of establishing the force structure sensitivity for a particular mission in a program. This is used in the preparation of JSOP's and force reviews.

RDT&E Appropriation - Costs primarily associated with research and development efforts including development of a new capability to the point where it is ready for introduction into operational use. These costs will include equipment prototype, test vehicles, etc., required in a development program to the extent that such equipment 's funded under the RDT&E appropriation. Related Military Construction appropriation costs will be also included. Costs which appear in the Military Personnel, Operation and Maintenance and Procurement appropriations will be excluded from this category.

Research and Development (R&D) - An effort that involves basic research in some form or other, especially directed at discovering new principles, methods, or facts, but one that is also directed at applying newly discovered or already known principles, facts, or methods to the production of some object, plan, or situation that will serve a practical purpose.

Sub-allocation - The action of funding an intermediate command or other operating agency, by the operating agency to which it is financially responsible for performance.

Subject Issue - Subject issues are OSD decisions made in connection with the annual budget review. They are normally received during the

Appendix A

latter part of October and the month of November in each calendar year cycle. They reflect adjustments to the budget submission by item/subject and, in some cases, provide decisions on PCP's.

Systems Management - (AF) The process of planning, organizing, coordinating, controlling, and directing the efforts of Air Force contractors and responsible Air Force organizations to accomplish system program objectives.

System Program Director (SPD) - The Director of a System Program Office.

System Program Office (SPO) - (AF) The overall field systems management organization during the acquisition phase of a system program, established or identified by Air Force Systems Command for each system program to provide a focal point and action office for planning guidance and instructions and for insuring that participants in the system program conduct their tasks in context with all other tasks on a timely basis.

System Program Plan (SPP) - This document identifies responsibility, tasks, resources, and time-phasing of major actions of participating organizations. It contains 15 sections: Program Summary, Master Schedule, Program Management, Intelligence Estimate, Operations, Acquisition, Civil Engineering, Logistics, Manpower & Organization, Personnel Training, Financial, Requirements, Authorizations, General Information, Security.

Technical Development Plan (TDP) - This document describes several alternative approaches to building a system, general description and management concept, types and numbers of contractors, amount of funding and phasing of the system to the operational stage in as much detail as possible. It is used to substantiate PCP's forwarded for approval and allocation of resources.

Tentative Force Guidance (TFG) - Memoranda issued in April of each year listing Secretary of Defense tentative decisions on changes in forces in Major Programs I through V, based on the recommendations of JCS in the form of marked-up force schedules appearing in the latest DoD FYFS&FP. These decisions are considered tentative only to the extent reclamaed by comment of the draft Presidential memoranda.

Threshold - Limits imposed by the Secretary of Defense on program changes, the basis for which is the DoD FYFS&FP. These are expressed in terms of dollars and physical resources.

Total Obligational Authority (TOA) - The total financial requirements for a given program or Materiel Annex item for a fiscal year's program, regardless of the source of funds.

Appendix A

USAF Force and Financial Play (F&FP) - The aggregation of all program
elements pertaining to the USAF set forth in individual Program
Element Summary Data forms, Descriptive Data Sheets, etc., as
approved by the Secretary of Defense and as modified by approved
program change proposals, financial reprogramming actions, subject
issues, or other Secretary of Defense decisions, and below
threshold changes. It projects force data eight years and costs
five years beyond the current fiscal year. The F&FP does not, in
itself, represent authority to implement any programs or obligate
any funds.

Wartime Basic Plan (WBP) - The USAF Wartime Basic Plan provides a broad
statement of the Air Force wartime mission, as derived from the
Joint Strategic Objectives Play (JSOP), the Joint Strategic
Capabilities Plan (JSCP), and the organic command responsibilities.

Wartime Requirements Plan--Mid-range (WPM) - The wartime requirements
plan starts with a projected inventory position with respect to
units, aircraft personnel, installations, and other assets. Then
post D-day projections in the mid-range plans represent a forecast
of operations during the periods indicated.

Wartime Requirements Plan--Short-range (WPS) - The USAF Short-Range
Wartime Requirements Plan is basically an emergency war plan which
is developed at Headquarters USAF and oriented toward the use of
available means in the event of immediate hostilities.

PROGRAM CHANGE PROPOSAL	SUBMITTING DOD COMPONENT	CHANGE NUMBER
☐ PROGRAM ELEMENT ☐ ITEM	PROCURING DOD COMPONENT	
	PRESENT AND/OR PROPOSED USERS	

DESCRIPTION AND OBJECTIVES

NATURE OF CHANGE

REASON FOR CHANGE

APPROVAL SPECIFICALLY REQUESTED FOR

NAME, TITLE AND TELEPHONE NUMBER OF PRINCIPAL ACTION OFFICER

DATE	SUBMITTING DOD COMPONENT

DD FORM 1 JAN 66 1355

FORCES Designate Force Unit:										
�	CURRENT FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
APPROVED										
PROPOSED										

APPROVED MAJOR ITEM PROCUREMENT/ACCEPTANCE OBJECTIVES Designate Item:										
	PRIOR PROC.	CURRENT FY	FY	FY	FY	FY	FY	FY	BALANCE	TOTAL
AUTH PROCUREMENT										
ACCEPTANCE										

PROPOSED PROCUREMENT/ACCEPTANCE OBJECTIVES										
FISCAL YEAR PROGRAM	ACCEPTANCE FY									
	PRIOR YEARS	CURRENT FY	FY	FY	FY	FY	FY	FY	BALANCE	TOTALS
PRIOR										
CURRENT										
FY										
FY										
FY										
FY										
FY										
BALANCE										
TOTALS										

MILESTONE DATA	COMPLETION DATES		
	ORIGINAL	LATEST APPR	PROPOSED

P.E. CODE	COST DETAIL (TOA in $ Thousands)								
DATE APPROVED	PRIOR FYS	CURRENT FY	FY	FY	FY	FY	FY	FY	COST TO COMPLETE
APPROVED									
R&D · RDT&E									
R&D · MIL CON									
R&D · TOTAL R&D									
INV · PROC									
INV · PROC									
INV · PROC									
INV · MIL CON									
INV · TOTAL INV									
OPER · O&M									
OPER · (Clv Pers)									
OPER · MIL PERS									
OPER · PROC									
OPER · PROC									
OPER · TOTAL OPER									
TOTAL APPROVED									
PROPOSED									
R&D · RDT&E									
R&D · MIL CON									
R&D · TOTAL R&D									
INV · PROC									
INV · PROC									
INV · PROC									
INV · MIL CON									
INV · TOTAL INV									
OPER · O&M									
OPER · (Clv Pers)									
OPER · MIL PERS									
OPER · PROC									
OPER · PROC									
OPER · TOTAL OPER									
TOTAL PROPOSED									
NET CHANGES									
R&D · RDT&E									
R&D · MIL CON									
R&D · TOTAL R&D									
INV · PROC									
INV · PROC									
INV · PROC									
INV · MIL CON									
INV · TOTAL INV									
OPER · O&M									
OPER · MIL PERS									
OPER · PROC									
OPER · PROC									
OPER · TOTAL OPER									
TOTAL NET CHANGES									

SUMMARY OF PROPOSED COST CHANGES (TOA $ Thousands)									
		PRIOR YEARS	CURRENT FY	FY	FY	FY	FY	FY	FY
TOTAL NET CHANGE - ALL ELEMENTS									
COST CAT	APPROPRIATION								
	TOTAL								
PRIMARY ELEMENT									
CODE:									
COST CAT.	APPROPRIATION								
	TOTAL								
OTHER ELEMENT									
CODE:									
COST CAT.	APPROPRIATION								
	TOTAL								
OTHER ELEMENT									
CODE:									
COST CAT.	APPROPRIATION								
	TOTAL								
OTHER ELEMENT									
CODE:									
COST CAT.	APPROPRIATION								
	TOTAL								
OTHER ELEMENT									
CODE:									
COST CAT.	APPROPRIATION								
	TOTAL								

FINANCING

BALANCE OF PAYMENTS IMPLICATIONS

IMPLICATIONS FOR OTHER PROGRAM ELEMENTS OR ITEMS

FACILITIES REQUIREMENTS AND AVAILABILITY

RELATIONSHIP WITH PREVIOUSLY PROPOSED OR CURRENT PROGRAMS

IMPACT ON STRATEGIC MOBILITY REQUIREMENTS OR CAPABILITIES

P.E. CODE:				MANPOWER DETAIL					
DATE APPROVED			CURRENT FY	FY	FY	FY	FY	FY	FY
PROPOSED	END STRENGTH	OFFICER							
		ENLISTED							
		TOTAL MILITARY							
		DIRECT HIRE, U.S.							
		DIRECT HIRE, FOR.							
		CONTRACT, FOR.							
		TOTAL CIVILIAN							
	MAN YEARS	OFFICER							
		ENLISTED							
		TOTAL MILITARY							
		DIRECT HIRE, U.S.							
		DIRECT HIRE, FOR.							
		CONTRACT, FOR.							
		TOTAL CIVILIAN							
	END STRENGTH	OFFICER							
		ENLISTED							
		TOTAL MILITARY							
		DIRECT HIRE, U.S.							
		DIRECT HIRE, FOR.							
		CONTRACT, FOR.							
		TOTAL CIVILIAN							
	MAN YEARS	OFFICER							
		ENLISTED							
		TOTAL MILITARY							
		DIRECT HIRE, U.S							
		DIRECT HIRE, FOR.							
		CONTRACT, FOR							
		TOTAL CIVILIAN							
NET CHANGES	P.E. END STRENGTH	TOTAL MILITARY							
		TOTAL CIVILIAN							
	P.E. MAN YEARS	TOTAL MILITARY *							
		TOTAL CIVILIAN							
	CEILING END STRENGTH	TOTAL MILITARY							
		TOTAL CIVILIAN							
	FOREIGN END STRENGTH	TOTAL MILITARY							
		TOTAL CIVILIAN							

DESCRIBE PROGRAM OR WORKLOAD FACTORS USED IN MANPOWER CALCULATIONS

SUMMARY OF PROPOSED MANPOWER CHANGES		CURRENT FY	FY	FY	FY	FY	FY	FY
TOTAL NET CHANGE. ALL ELEMENTS								
END STRENGTH	OFFICER							
	ENLISTED							
	TOTAL MILITARY							
	DIRECT HIRE - U.S.							
	DIRECT HIRE-FOR.							
	CONTRACT FOR.							
	TOTAL CIVILIAN							
FOREIGN END STRENGTH	TOTAL MILITARY							
	TOTAL CIVILIAN							
PRIMARY ELEMENT CODE:								
END STRENGTH	OFFICER							
	ENLISTED							
	TOTAL MILITARY							
	DIRECT HIRE - U.S.							
	DIRECT HIRE - FOR.							
	CONTRACT FOR.							
	TOTAL CIVILIAN							
FOREIGN END STRENGTH	TOTAL MILITARY							
	TOTAL CIVILIAN							
OTHER ELEMENT CODE:								
END STRENGTH	OFFICER							
	ENLISTED							
	TOTAL MILITARY							
	DIRECT HIRE - U.S.							
	DIRECT HIRE - FOR.							
	CONTRACT FOR.							
	TOTAL CIVILIAN							
FOREIGN END STRENGTH	TOTAL MILITARY							
	TOTAL CIVILIAN							
OTHER ELEMENT CODE:								
END STRENGTH	OFFICER							
	ENLISTED							
	TOTAL MILITARY							
	DIRECT HIRE - U.S.							
	DIRECT HIRE - FOR.							
	CONTRACT FOR.							
	TOTAL CIVILIAN							
FOREIGN END STRENGTH	TOTAL MILITARY							
	TOTAL CIVILIAN							
OTHER ELEMENT CODE:								
END STRENGTH	OFFICER							
	ENLISTED							
	TOTAL MILITARY							
	DIRECT HIRE - U.S.							
	DIRECT HIRE - FOR.							
	CONTRACT FOR.							
	TOTAL CIVILIAN							
FOREIGN END STRENGTH	TOTAL MILITARY							
	TOTAL CIVILIAN							

Appendix C
TFG PCPs - TIME PHASED SCHEDULE

Consec Work Day		Consec Work Day	

— AFOAP receives Secretary of Defense Force Guidance Memoranda

1st AFOAP releases Program Guidance Letter

2nd & 3rd
- AFSPD - Production schedule data
- AFRRP - RDT&E
- AFXPD/AFSSS - GAR/GAM/WRM data

4th - 6th
- AFOAPE - Aircraft inventory and flying hours
- AFOAPD - Bases and units data

7th - 10th
- AFOMO - Manpower data
- AFPDP - Personnel data and man-years

11th & 12th
- AFOCE - (See under "Final Costs" below. Program and cost data for MCP are submitted simultaneously)
- AFOCC - Communications data

Same as similar items above
- NGB(AFOT) - ANG flying hours, air technicians and drill pay spaces

NOTE: AFOMO must receive AFOAPD input before computing manpower data.

13th - 19th
- Costing by Air Staff and consolidation by AFABF (see details on right)

- PEM completes Draft No. 2 (first draft in this instance), back-up and consolidates

20th & 21st
- AFOAP prime division reviews initially
- PEM obtains "green copy" and "top-line" coordinations
- To AFCCS for approval

22nd - 25th
- To AFOAP for final Air Staff Review
- To SAF-FM for coordination at Sec AF level and signature by SAF-OS
- To AFOAP for OSD Serial Number
- To Secretary of Defense and distribution within Air Staff

13th

Preliminary Costs

AFSSS—Initial spares
War consumables
Common AGE
Spares and repair parts
Munitions & associated equipment
Vehicular equipment
Electronic & telecom equipment
Other base maintenance & support equipment
AFSPD—Aircraft & missile procurement
—Component improvement
—Industrial facilities
—Crypto and other USAFSS equipment
AFSME—Aircraft modifications
—Equipment modifications
AFPTR—Training devices & spares

NOTE: All above must receive basic program data before preliminary costs can be computed

Final Costs

14th & 15th
AFSPD-3010/3020/3080 costs
AFOCE-3300/3830
AFABFF-3400
AFPDP-3500/3700
AFABFA-4922 (Ind Fund)
NGB/ABF-3730, 3840, 3850

NOTE: AFSPD must receive preliminary costs from AFSSS, AFSME, and AFPTR before final 3010/3030/3080 costs can be computed

16th - 19th
AFABF-Cost consolidation and review and to PEM

NOTES:
1. The foregoing establishes the _maximum_ time which should be taken; in actual cases, the various steps should be completed in less time whenever possible.
2. In the case of composite PCPs, AFOAPD is allowed a total of 4 working days for the bases and units input, AFOMO 7 days for the manpower input, and AFABF 10 days for costs; thus, composite PCPS will normally be completed in 35 working days.
3. Where major air command participation is required, the foregoing schedule will be modified for so much time as this entails. In such instances, the PEM will prepare a schedule taking into account command participation and distribute the modified schedule to all concerned.
4. While Draft No. 1 will not normally be prepared and distributed, it may be required in exceptional cases. See par 3-43 of text.
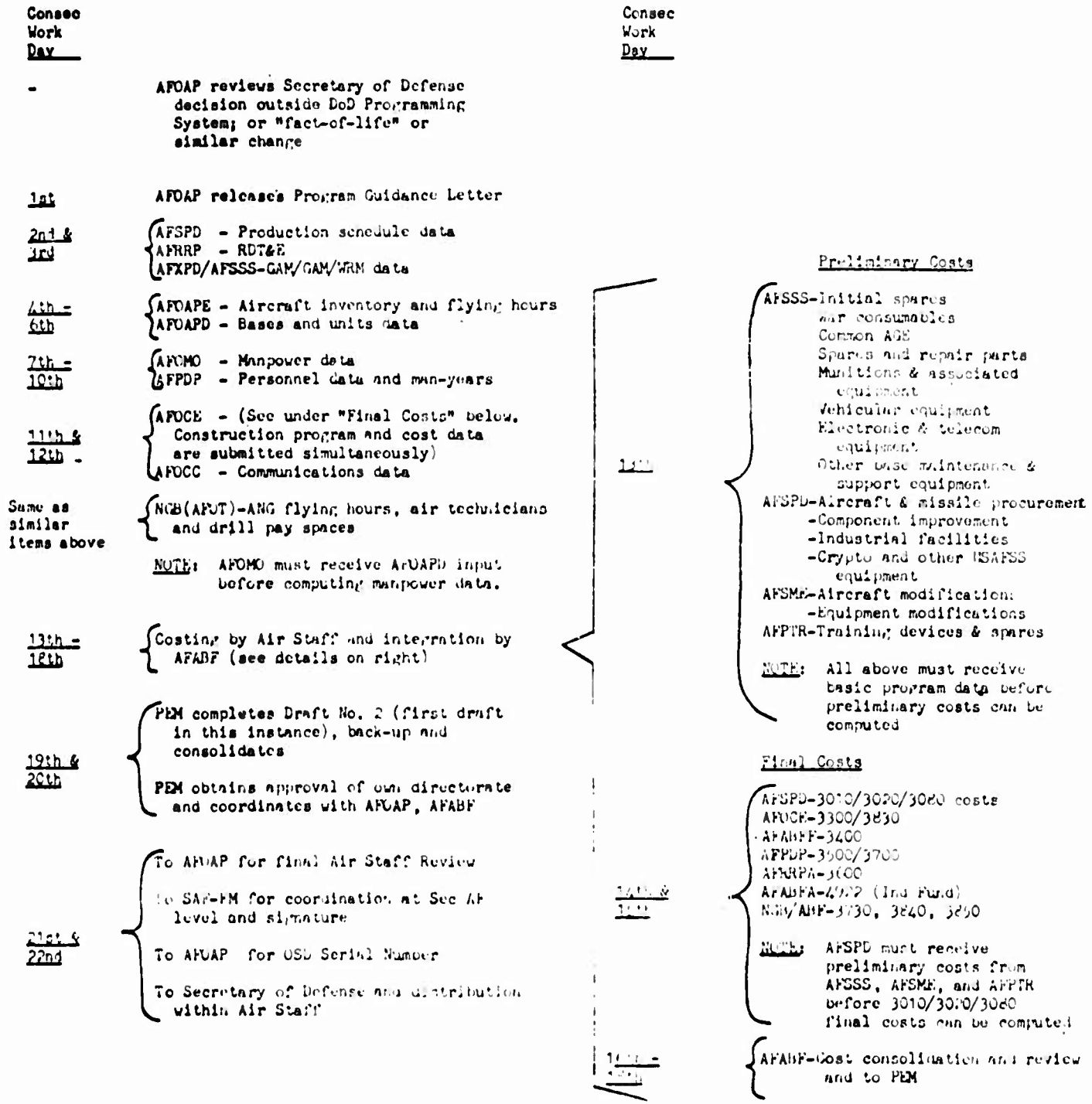
Appendix C

NON-TFG PCPs - TIME PHASED SCHEDULE

Consec
Work
Day

Consec
Work
Day

Areas where PCPs required are generally
identified by continual review of
program levels of non-force elements

1st AFOAP releases Program Guidance Letter

2d PEM distributes Draft No. 1 to data-
producers

**3rd &
4th**
- AFSPD – Production schedule data
- AFRRP – RDT&E
- AFXPD/AFSSS-GAR/GAM/WRM data

**5th –
7th**
- AFOAPE – Aircraft inventory and flying hours
- AFOAPD – Bases and units data

**8th –
11th**
- AFOMO – Manpower data
- AFPDP – Personnel data and man-years

**12th &
13th**
- AFOCE – (See under "Final Costs" below.
  Construction program and cost data
  are submitted simultaneously)
- AFCCC–Communications data

Same as
similar
items above
- NGB(AFOT)-ANG flying hours, air technicians
  and drill pay spaces

NOTE: AFOMO must receive AFOAPD input
before computing manpower data.

**14th –
20th**
- Costing by Air Staff and consolidation by
  AFABF (see details on right)

PEM completes Draft No. 2, back-up and
consolidates

PEM distributes Draft No. 2 to review
agencies and prepares ASB/AFC
presentation

**14th –
24th**
- AFOAP prime division reviews initially
- Panel, PRC or FSC reviews
- Air Staff Board reviews
- Air Force Council reviews (when deemed
  necessary by Board)
- To AFCCS for approval

**25th –
28th**
- To AFOAP for final Air Staff Review
- To SAF-FM for coordination at Sec AF level
  and signature by SAF-CS
- To AFOAP for OSD Serial Number
- To Secretary of Defense and distribution
  within Air Staff

Preliminary Costs

14th
- AFSSS–Initial spares
  War consumables
  Common AGE
  Spares and repair parts
  Munitions & associated
    equipment
  Vehicular equipment
  Electronic & telecom
    equipment
  Other base maintenance &
    support equipment
- AFSPD–Aircraft and missile procurement
  –Component improvement
  –Industrial facilities
  –Crypto and other USAFSS
    equipment
- AFSME–Aircraft modifications
  –Equipment modifications
- AFPTR–Training devices & spares

NOTE: All above must receive
basic program data before
preliminary costs can be
computed

Final Costs
- AFSPD-3010/3020/3080 costs
- AFOCE-3300/3830
- AFABFF-3400
- AFPDP-3500/3700
- AFRRPA-3600

**15th &
16th**
- AFABFA-4922 (Ind. Fund)
- NGB/ABF-3730, 3840, 3850

NOTE: AFSPD must receive
preliminary costs from
AFSSS, AFSME, and AFPTR
before final 3010/3020/3080
costs can be computed

**17th –
18th**
- AFABF–Cost consolidation and review
  and to PEM

NOTES:

1. The foregoing establishes the maximum time which should be taken in actual cases, the various steps should
   be completed in less time whenever possible.

2. In the case of composite PCPs, AFOAPD is allowed a total of 4 working days for the bases and units input;
   AFOMO 7 working days for the manpower input and AFABF 10 working days for costs; thus, composite PCPs will
   normally be completed in 36 working days.

3. Where major air command participation is required, the foregoing schedule should be modified for so much time
   as this entails. In such instances, the PEM should prepare a schedule taking into account command participation
   and distribute the modified schedule to all concerned.

Appendix C

SIMPLIFIED PCPs - TIME PHASED SCHEDULE

Consec Work Day		Consec Work Day	

Consec Work Day	
-	AFOAP reviews Secretary of Defense decision outside DoD Programming System; or "fact-of-life" or similar change
1st	AFOAP releases Program Guidance Letter
2nd & 3rd	AFSPD - Production schedule data AFRRP - RDT&E AFXPD/AFSSS-GAM/GAM/WRM data
4th - 6th	AFOAPE - Aircraft inventory and flying hours AFOAPD - Bases and units data
7th - 10th	AFOMO - Manpower data AFPDP - Personnel data and man-years
11th & 12th	AFOCE - (See under "Final Costs" below. Construction program and cost data are submitted simultaneously) AFOCC - Communications data
Same as similar items above	NGB(AFOT)-ANG flying hours, air technicians and drill pay spaces
	NOTE: AFOMO must receive AFOAPD input before computing manpower data.
13th - 18th	Costing by Air Staff and integration by AFABF (see details on right)
19th & 20th	PEM completes Draft No. 2 (first draft in this instance), back-up and consolidates PEM obtains approval of own directorate and coordinates with AFOAP, AFABF
21st & 22nd	To AFOAP for final Air Staff Review To SAF-FM for coordination at Sec AF level and signature To AFOAP for OSD Serial Number To Secretary of Defense and distribution within Air Staff

Preliminary Costs

Day	
13th	AFSSS-Initial spares air consumables Common AGE Spares and repair parts Munitions & associated equipment Vehicular equipment Electronic & telecom equipment Other base maintenance & support equipment AFSPD-Aircraft & missile procurement -Component improvement -Industrial facilities -Crypto and other USAFSS equipment AFSME-Aircraft modifications -Equipment modifications AFPTR-Training devices & spares
	NOTE: All above must receive basic program data before preliminary costs can be computed

Final Costs

Day	
14th & 19th	AFSPD-3010/3020/3080 costs AFOCE-3300/3830 AFABFF-3400 AFPDP-3500/3700 AFRRPA-3600 AFABFA-4972 (Ind Fund) NGB/AFBF-3730, 3840, 3850
	NOTE: AFSPD must receive preliminary costs from AFSSS, AFSME, and AFPTR before 3010/3020/3080 final costs can be computed
18th - 19th	AFABF-Cost consolidation and review and to PEM

NOTE: The foregoing establishes the maximum time which should be taken; in actual cases, the various steps should be completed in less time whenever possible.

119

PROGRAM CHANGE PROPOSAL - REVIEW COMMENTS	REVIEW DOD COMPONENT	☐ PRIMARY	☐ PARTICIPATING
☐ PROGRAM ELEMENT ☐ ITEM	SUBMITTING DOD COMPONENT	CHANGE NUMBER	

EVALUATION AND RECOMMENDATION

DATE	ACTION OFFICER (Signature)		
REVIEW OFFICER (Signature)		REVIEW OFFICER (Signature)	
DATE	REVIEW DOD COMPONENT (Signature)		

FORMAT A

PROGRAM CHANGE - SECRETARY OF DEFENSE DECISION				
☐ PROGRAM ELEMENT	☐ ITEM	SUBMITTING DOD COMPONENT	IMPLEMENTING DOD COMPONENT	CHANGE NUMBER
DECISION				
DATE	SIGNATURE			
IMPLEMENTING DOD COMPONENT ACKNOWLEDGEMENT				
DATE	SIGNATURE			

FORMAT B

Appendix E

FORMAT B - SAMPLE

Page 1

PROGRAM CHANGE - SECRETARY OF DEFENSE DECISION

PROGRAM ELEMENT	ITEM	SUBMITTING DOD COMPONENT	IMPLEMENTING DOD COMPONENT	CHANGE NUMBER
Gladiator		Air Force	Air Force	P-4-008

DECISION

Proposal - The Program Change Proposal requests approval to phase the Gladiator II missile into the force structure beginning in FY 1965 instead of FY 1967 with a corresponding reduction in the Gladiator I forces. The force implications of this proposal are as follows:

(Missiles on Launchers)

		FY 65	FY 66	FY 67	FY 68	FY 69
Prev. Appd	Glad I	120	120	100	50	0
	Glad II			20	70	120
Proposed	Glad I	100	80	50	0	0
	Glad II	20	40	70	120	120

The financial implications of the proposal are as follows:

(TOA - $ Millions)

	FY 65	FY 66	FY 67	FY 68	FY 69
Prev.Appd-(15May64)	$ 50	$ 48	$ 60	$ 65	$ 70
Proposed	70	70	75	65	65
Net Change	+$ 20	+$ 22	+$ 15	$ 0	$ -5

Manpower implications are as follows: (net change)

	FY 65	FY 66	FY 67	FY 68	FY 69
Officer	+ 20	+ 20	+ 30	+ 50	-
Enlisted	+ 40	40	+ 60	+ 100	-
Civilian	0	0	0	0	-

Evaluation - The proposed change is in accordance with the recommendations of the Missile Board Study to upgrade the missile force with longer range missiles. However, two alternatives are feasible:

1. Introduce the Glad II as proposed in FY 65.
2. Modify the Glad I and retain in the force until tests are completed on the new Glad III which is superior to the Glad II in range and accuracy.

Decision - Alternative 2 is approved. Comparison of the Glad II with a modified Glad I indicates that it does not provide enough additional capability to warrant its early introduction into the forces since the Glad III has a much greater potential and can become operational by FY 68. The implications of this decision are as follows:

		FY 65	FY 66	FY 67	FY 68	FY 69
1. Forces						
New appd Program	Glad I	120	120	120	100	80
	Glad II			--	--	--
	Glad III				20	40

DATE	SIGNATURE

FORMAT B - SAMPLE

IMPLEMENTING DOD COMPONENT ACKNOWLEDGEMENT	
DATE	SIGNATURE

Appendix B

FORMAT B   S A M P L E

Page 2

PROGRAM CHANGE - SECRETARY OF DEFENSE DECISION				
[X] PROGRAM ELEMENT ☐ ITEM	SUBMITTING DOD COMPONENT	IMPLEMENTING DOD COMPONENT	CHANGE NUMBER	
Gladiator	Air Force	Air Force	F-4-008	

DECISION

2.   TOA in Millions of $

Prev. Appd (1 Jun63)	FY 65	FY 66	FY 67	FY 68	FY 69
R&D	$ 10	$ 10	$ 5	$ 5	$ 2
Inv.	5	5	15	20	28
Oper.	35	33	40	40	40
Total	$ 50	$ 48	$ 60	$ 65	$ 70

New Appd. Prog.					
R&D	$ 10	$ 15	$ 15	$ 10	$ 5
Inv.	10	10	10	20	25
Oper.	35	35	35	40	45
Total	$ 55	$ 60	$ 60	$ 70	$ 75

Net Appd Chg					
R&D (RDT&E)	$	$ +5	$ 10	$ 5	$ +3
Inv. (Proc Msls)	+3	+3	-5	-	-3
(Other Proc.)	+2	+2	-	-	-
Oper. (O&M)	-	+2	-5	-	+5
Total	$ +5	$+12	$ -	$ +5	$ +5

The source of funds for the increase in TOA in FY 1965 for this element will
be Missile M, 1.XXXXXXX, which will be decreased by $5 Million in Inv. (Proc.Msls.)
The increases for FY 66, 68 and 69 will be funded by increased TOA.

3.   Manpower - No change in manpower is involved.

4.   The following elements including those for which changes were specifically
requested are also affected by this decision as indicated:
TOA in Millions of $

	FY 65	FY 66	FY 67	FY 68	FY 69
1. XXXXXXX	-5	-	-	-	-
6. XXXXXXX	+2	+3	+2	+2	+2
7. XXXXXXX	-2	+2	-	-	-

No change in manpower is involved in any of these elements.

The above information is only hypothetical to illustrate the type of information
that should appear in a Format B.

DATE	SIGNATURE

IMPLEMENTING DOD COMPONENT ACKNOWLEDGEMENT	
DATE	SIGNATURE
	FORMAT B - SAMPLE

Appendix F

DD FORM 1414 — BASE FOR REPROGRAMMING ACTIONS

APPROVAL AND/OR NOT~~~~~~~~~~~~~~~ ~~~ FOR
REPROGRAMMING ACT~~~~ ~~~~~~~ ~~~ APPROPRIATION
ACCOUNTS COVERED ~~ ~~~ ~~~~~~~~~~~ ACTS

DoD Component Action	OSD Action			
DoD Instruction 7250.10 dated 5 March 1963 "Implementation of Reprogramming of Appropriated Funds" requires prior approval of Sec/Def or Dep Sec/Def for the following:	Obtain Prior Approval of House & Senate Committees on		Notify House and Senate Committees in 48 hours	
	Armed Serv.	Appropriat.	Armed Serv.	Appropriat.
I. Any reprogramming of funds under any appropriation, regardless of amount to items or activities omitted, deleted, or specifically reduced by the Congress:				
1. For which funds are authorized under Sec 412(b)	X	X		
2. Not covered by such authorization Act		X		
II. Any reprogramming to <u>increase the procurement quantity</u> of an individual aircraft, missile or naval vessel for which funds are authorized under Sec 412(b)	X	X		
III. In addition to the above the following criteria apply to the appropriations indicated:				
1. <u>Military Personnel</u> - an increase of $5 million or more in a budget activity.				X
2. <u>Operation & Maintenance</u> - an increase in budget activity of $5 million or more.				X
3. <u>Procurement</u> - (Other than I & II above) an increase of $5 million or more in a line item or the addition of a new item in the amount of $2 million or more.			X	X
4. <u>RDT&E</u> - an increase of $2 million or more in any sub-activity line item including the addition of a new line item, or the addition of a new line item the cost of which is estimated to be $10 million or more within a 3 year period.			X	X
IV. In addition to the foregoing, Representatives of the DoD will endeavor to discuss with the Committees, prior to taking action, any other cases involving matters, such as administrative aircraft, which are known to be of special interest to one or more of the Committees.				

Appendix H

Offices Visited and Questionnaires

List of Offices and Number of Personnel Interviewed

<u>System Program Offices</u>:

F-111, C-141, MOL, Minuteman II, 416L, and 466L.

3 System Program Directors,

4 Assistant System Program Directors,

14 Program Control,

5 Financial Management.

<u>Divisions' Staff</u>:

8 Comptroller,

3 Systems Management.

<u>Air Force Systems Command</u>:

2 Office of the Commander,

5 Deputy Chief of Staff, Comptroller,

5 Deputy Chief of Staff/Systems.

<u>Headquarters USAF</u>:

3 Deputy Chief of Staff, Programs and Requirements,

1 Deputy Chief of Staff, Research and Development,

13 Deputy Chief of Staff, Systems and Logistics,

1 Deputy Chief of Staff, Plans and Operations,

5 Comptroller of the Air Force.

<u>OSD Staff</u>:

1 Director of Defense Research and Engineering,

8 Assistant Secretary (Comptroller).

Appendix H

Questionnaire
-SPO-

1. What decision-making authority does the DoD Programming System allow you regarding a) Money b) Time c) Performance? What are your thresholds for each?

2. How many PCP's have you submitted since your program was initially approved?

3. Why (reason) was each PCP submitted? Who decided a PCP was necessary?

4. How much time was spent in preparing each PCP? What costs were actually paid to a contractor to assist in preparing the PCP?

5. What date did each PCP leave the SPO and what date was a decision returned?

6. Was additional data required to support any of the PCP's? If so, how many times were requests made for additional data?

7. What effect has the informal day to day requests for data by higher headquarters had on your program relative to decisions and/or changes?

8. Who is the Division received the PCP after it leaves the SPO? When did it leave the Division?

9. How many briefings have you had to make in order to launch each PCP? Has the time required to make these presentations interfered with other important tasks? If so, what slipped?

10. What problems occurred that delayed obtaining approval on your PCP's? At what level did they occur? Why did they occur? Could these problems be avoided? Were they avoided on later PCP's?

11. What effect have time delays associated with the processing of PCP's had on your program?

Appendix H

12. What changes would you like to see made in the System to help you manage your program more effectively?

13. Are the requirements of the System being duplicated by some other management system?

Appendix H

Questionnaire
-AFSC-

1. What approval authority do you have on PCP's or reprogramming actions in terms of dollars, time, performance?

2. Will you accept PCP's at any time or do you recommend dates and/or times for PCP submittal? If you recommend, what are the underlying reasons? Is this because of the annual budget cycle?

3. Is there a set time for a PCP to follow when being processed by your Headquarters? Do you have a log to verify the time in and out for each PCP and the action taken on it? Do you have a PCP file?

4. Should the thresholds be raised on PCP's to allow inclusion of AFSC in decision-making process?

5. Since OSD has contended that they will eventually delegate decision-making authority to the Services, what efforts are you making to demonstrate your capability to make the type of analysis required by the System?

6. What are the major problems that you have in working with the DoD Programming System? What recommendations do you have for correcting these deficiencies?

7. Do you think AFSC is playing the role it should in the management of weapons systems? How could it be improved? What steps are you taking to make these improvements?

Appendix H

Questionnaire
-USAF-

1. What are your actions relative to: SPP, PTDP, PCP? Do you have
    any inputs into any of the above documents?

2. What are the thresholds, limitations, etc., relative to PCP approval
    or disapproval? Do you furnish a record of your actions to higher
    authority?

3. What is the average time you keep a PCP, SPP, etc., for review?
    Is there any maximum time established that you may keep a PCP, etc.,
    before it must be forwarded or acted on?

4. What control do you exercise over the SPO in terms of dollars, time
    and performance? Do you participate in Quarterly Reviews?

5. What reports do you initiate that a SPO has to submit?

6. Will you accept PCP's at any time or do you recommend dates or
    times of submittal? If you recommend submittals, what are the
    underlying reasons?

7. What are the three major problems that you face in complying with
    the DoD Programming System?

Appendix H

Questionnaire

-OSD-

1. Do you require an annual PCP on each weapons system under development? Is this in addition to the annual budget call?

2. How did you arrive at the thresholds you have established? Do you plan to raise or lower these thresholds?

3. How is the budget cycle affecting the Programming System? Does it give you the flexibility that you originally intended?

4. Have you been able to make timely decisions on PCP's submitted outside the budget cycle. Where do you get the money for new programs to be implemented outside the budget cycle?

5. Are you aware of PCP's prior to their submittal and do you recommend when they should be submitted?

6. Do you have a standard time established for processing and review of PCP's? Do you meet this schedule?

7. How much time do you have to spend in handling PCP's? Do you have ample time left to do long-range planning?

8. Do you have an ample staff to analyze all the data you receive?

9. What have been your manpower increases since 1960?

10. What effort is being made by OSD to decentralize the decision-making process as Mr. Hitch pointed out was an end objective of the Programming System?

11. How much more accuracy have you been getting now with the more detailed cost data you are obtaining? What is the impact in cost, time, vs. effectiveness in implementing your new CEIS as outlined in DoD 7041.1?

12. What reprogramming authority do you have? What Congressional control is exercised on reprogramming funds?

Vita

Stewart DeWitt Hawkins was born ███████████████████████ After
graduation from the University of Connecticut, Storrs, Connecticut, with
a B. S. in Engineering degree, he entered the U. S. Army Air Corps and
served as a pilot from 1942 to 1946. On his release from active duty
he worked as a Structural Engineer with the Humble Oil and Refining
Company, Houston, Texas, for seven years. He then entered Civil Service
at Wright Field, Ohio, and has been employed continuously there in
various aeronautical engineering capacities in the Aircraft and Flight
Control Laboratories. Prior to his coming to the Air Force Institute
of Technology he was assigned as the Division Chief, Management
Evaluation Division, Plans and Operations Office, Aeronautical Systems
Division, in Air Force Systems Command, Wright-Patterson Air Force
Base, Ohio.

Permanent address: ███████████████████████

Vita

Paul Richard Miller was born █████████████████████ ████ the son of ███████████████████████ After completing his ████████████████████████████████ he enlisted in the U. S. Army where he served as an enlisted man from 1945 to 1947. Upon his discharge, he was appointed to the United States Military Academy, West Point, New York, and in June 1951 he was graduated with a degree of Bachelor of Science. After receiving his commission as Lieutenant in the USAF, he entered active duty in June 1951. His military assignment prior to his coming to the Air Force Institute of Technology was as Air Force Contracting Officer, Procurement Division, Headquarters, Strategic Air Command, Offutt Air Force Base, Nebraska.

Permanent address: ██████████████

Vita

Paul Archibald Cameron, Jr., was born ███████████████

██████████████████████ Upon graduation from ███████████████

██████████████████████ in 1949 he attended East Carolina College

where he received the degree of Bachelor of Science in Education in

June 1954. He immediately entered the United States Air Force and

received his pilot's wings one year later. His last assignment prior

to attending the Air Force Institute Technology was as a B-52 Aircraft

Commander in the Strategic Air Command.

Permanent address: ███████████████

This report was typed by Mrs. Lou Ann Mulvaney.