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Management Update: Navy Major System Acquisitions

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MANAGEMENT UPDATE: NAVY

MAJOR SYSTEM ACQUISITIONS

ACKNOWLEDGEMENT

The recommendations and products presented in this report are the result of a comprehensive review and analysis of Office of Management and Budget, Department of Defense, and Department of Navy publications and other written material; interviews with knowledgeable and interested people; and the viewpoints and judgments of those responsible for writing this report.

We greatly appreciate the time, attention, and assistance of everyone who contributed to this effort.

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INTRODUCTION

This report presents the results of a 3-month effort conducted under Office of Naval Research Contract N00014-77-C-0517. The main goal of the effort was to review and analyze Navy directives relevant to major system acquisitions from the standpoint of conformance with OMB Circular A-109 and DOD Directives 5000.1, 5000.2, and 5000.3 and to document the impact of their implementation on the major system acquisition process and on cognizant Navy organizations.

The following tasks evolved from this effort:

- Conduct a comprehensive review and analysis of Directives and Instructions;
- Describe the relevant milestone management information applicable to current major system acquisitions;
- Develop a matrix and narrative descriptions of management activities and interfaces within the Navy Secretariat.
- Examine and evaluate program initiation procedures and program documentation; and
- Identify other related management considerations.

RECOMMENDATIONS

The following recommendations are one product of the 3-month effort:

1. Designate a single office or individual (e.g., Acquisition Executive) at Secretarial level to be responsible for coordination, issuance, and implementation of policy guidelines and for resolving all significant issues arising in connection with system acquisitions. Focal points should also be designated at OPNAV and NAVMAT levels to ensure the expeditious coordination of system acquisition matters.

2. Establish a plan, including a timetable for completion, for systematic review, analysis, and early revision of SECNAV and lower level Instructions, manuals, and guidelines bearing on the systems acquisition process to: (i) Convey and assure conformity with established DOD policies and procedures, (ii) More clearly delineate functions, authority, responsibility, and accountability for system acquisitions, (iii) Clarify the meaning,

intent, and effect of oversight, review, and monitoring actions. (iv) Eliminate unnecessary or repetitious implementing instructions at each management tier from the SECNAV level to the Navy System Commands.

3. Assign responsibilities for executing and ensuring completion of the above plans.

4. Develop the procedures and guidelines, including interface mechanisns, to be followed by each Assistant Secretary of the Navy in carrying out assigned system acquisition responsibilities.

5. Assign responsibility to a single office in the Department of the Navy to perform the function of centralized control of Directives and Instructions related to major system acquisitions to ensure the appropriate integration of disciplines, correlation of subject matter, and timely coordination of overall acquisitions policies and procedures.

6. Promulgate a SECNAV memorandum that highlights the Navy's position relative to implementation of Circular A-109 and related DOD and SECNAV directives.

7. Assign an appropriately qualified team to brief selected personnel on the concepts, requirements, benefits, and procedures involved in implementation of A-109.

8. Establish without delay an ASN(RES) symposium, in conjunction with DCNO for Plans, Policy, and Operations (OP 06), to involve their offices and other interested parties (e.g., OP 098 and OP 090) in a series of briefings and discussions on strategic planning and the potential of R&D activities to support or enhance those plans.

9. Develop closer working relationships among OPNAV, NAVMAT, OPA, and ASN(RES) staffs and with their counterparts in OSD.

10. Consolidate, where practicable, the guidelines and instructions for preparing Decision Coordinating Papers (DCPs) and other key documents pertaining to system acquisitions.

11. Assign to an appropriate office in OPNAV the primary duty of assisting program offices in the preparation of DCPs, Operational Requirements (ORs), Mission Element Needs Statements (MENS), Navy Decision Coordinating Paper (NDCPs), and other documents that have a crucial impact on system acquisitions.

12. Adopt the MENS as the single format for initiating a program. If this is not considered desirable, a change in title for the "Operational Requirement (OR)" is strongly recommended as a means of emphasizing to involved personnel that a change has been made and that new procedures and documentation apply. The title "General Operational Requiremements (GOR)" or "Navy Operational Requirements (NOR)" is suggested.

13. Incorporate into the directives/instruction system, at the earliest practicable date, all informal or formal memorandums that establish requirements or alter system acquisition procedures.

The basis for each of the 13 recommendations is discussed in the main body of the report.

Recommendations 1-5 will be affected by impending organizational changes, realignment of functions, and pending revisions to DOD Directives and Instructions that impact on the major system acquisition process. Accordingly, in the development of the plans suggested, close coordination must be maintained with OSD to ascertain the status and likely scope of any proposed revisions.

OTHER PRODUCTS

The five other primary products presented in this report are:

1. Diagrammatic and narrative presentations of the changes and the impact of changes in the acquisition process.

2. A matrix depicting OSD and Navy Secretariat interfaces, along with descriptions and identification of functions and responsibilities in system acquisition management.

3. An outline for a proposed Navy system acquisition management guide.

4. Discussions of other management considerations.

5. Summary reviews and analyses of key OMB and OSD Directives (Appendix D).

BACKGROUND

In April 1976, OMB Circular A-109, Major System Acquisitions, was issued. DOD implementing directives were published in January 1977. Promulgation of these new management concepts was followed closely by a change in administration, shifts in key management personnel, reorganization, and realignment of functions in the Office of the Secretary of Defense (OSD) and the Office of the Secretary of the Navy (OSN). Concurrent with these actions were changes in personnel authorizations at both levels.

Since the Department of Defense Directives (DODD's) were effective upon issuance and had immediate impact, revision or publication of key implementing Navy directives was undertaken. The organizational and functional realignment and shifting of personnel obviously made the coordination and approval of proposed publications difficult and, at the time of this writing, none of the implementing Charters, Directives, or Instructions has been issued.

In the early stages of the study, the assumption was made that it was intended that the various products of this effort would be useful, not only to the Assistant Secretary of the Navy (Research, Engineering, and Systems) ASN(RES), his deputies and staff, but also to other ASNs and staff, and at SECNAV, OPNAV, NAVMAT, SYSCOM, and Program Office levels.

METHODOLOGY

The study approach involved:

Identification and selection of OMB, DOD, and DN Circulars, Directives, and Instructions related to major system acquisitions, followed by review, summarization, and analysis of the key publications.

Interviews with key people involved in or familiar with the acquisition of major systems.

Formulation of recommendations based on an evaluation and analysis of the literature reviewed and the results of personal interviews.

Development of documentation necessary to complete the designated tasks.

Review and Analysis of Directives and Instructions

Initially, a total of 180 documents relating to major system acquisitions was identified as candidates for review. By selecting only those considered most pertinent and significant to the study, this number was reduced to 70.

Detailed summaries that indicate specific assignments of responsibility for carrying out particular actions and functions were prepared for each of the five parent directives (OMB Circular A-109 and DODDs 5000.1, 5000.2, 5000.3, and 5000.30).

Based on 38 of the instructions, summaries were prepared showing functions and responsibilities of each ASN for various aspects of the acquisition process.

Summaries of the other documents reviewed are not presented in this report, but they did serve as a basis for formulation of recommendations, as examples to support findings, and in the development of the ouline for a proposed management guide.

Interviews

Interviews were conducted with more than 40 individuals who collectively have expert knowledge of all phases of the acquisition process. The purpose of the interviews was to gain current and broadbased assessments from informed experts on what is currently being done or is planned in the management of Navy system acquisition programs and to learn what is being planned by the Army and Air Force. As key Navy policy and procedural instructions were at the time undergoing revision, this aspect of the effort was considered to be highly significant.

The persons interviewed included those with broad acquisition experience as well as those working only in specialty areas. Appendix E3 lists the persons interviewed and their affiliations. Such affiliations range from OMB and OSD to the Program Office level.

The interviews were informally structured and made on a nonattribution basis but were conducted in a consistent pattern. The interviews were especially helpful in focusing on persistent areas of concern and in understanding current and proposed policies, responsibilities, and procedures of DOD acquisition management. In some instances, it was necessary to confirm impressions gained fron overall interviews with followup calls and repeat visits to interviewees.

Formulation of Recommendations and Development of Management Documentation

In addition to the findings, conclusions, and recommendations resulting from the review and analysis of directives, three summary documents were prepared. These were used in developing other products of the study and are presented in Appendixes as ready references to selected documents:

Summary of functions and responsibilities assigned each ASN. (Appendix B)

Summary of contents of selected Navy instructions. (Appendix C)

Listings of documents reviewed. (Appendix E)

In the development of documentation concerning placement of functions and assignment of responsibilities and in the construction of a management guide outline, it was necessary to draw heavily from interviews and discussions of proposed Navy implementing instructions to the recently published DOD directives. However, because such information is subject to change before approval and issuance of the new or revised instructions, and due to the voids in existing publications, upon release of the Navy implementing instructions it will be necessary to update the documents presented.

THE MAJOR SYSTEM ACQUISITION PROCESS

To present the system acquisition process and the relevant milestone management information derived from the review of OMB Circular A-109 and DOD Directives 5000.1 and 5000.2 as it applies to current and future programs, a combined diagrammatic and narrative format has been selected. It includes depiction and descriptions of the process by phases and appropriate Milestone Decision points. To a large degree, the explicit language of those documents is used; however, implicit instructions, as we interpret them, have been added to complete the process.

Principal features of the Directives which impact directly on the acquisition of Navy systems are highlighted in summary form.

THE CHANGES

- Needs and program objectives must be expressed in mission terms, not equipment terms.

- System acquisition programs must be related to mission elements in communicating with Congress.

- A new decision point, Milestone "0" is added and submission and approval of a Mission Element Need Statement (MENS) by SECDEF is required for program initiation.

- Competitive exploration of alternative design concepts is emphasized.

- A Program Manager must be appointed immediately following Milestone "0" and an acquisition strategy developed which provides the basis for integrating the technical, business and management considerations in achieving program objectives.

- A Defense Acquisition Executive is designated "to integrate and unify the management process for the agencies major system acquisitions." He serves as permanent chairman of the Defense Acquisition Review Council (DSARC) and has the authority to "approve or disapprove the format and content" of Decision Coordinating Papers (DCPs).

- Delineation of lines of authority, responsibility, and accountability are emphasized.

- Details of program documentation are stressed and added emphasis is given to selection and tenure of program managers and to the establishment of appropriate career incentives.

• Continuing mission area analyses and reaffirmation of mission need is required at each decision point.

• Production planning and engineering, industrial preparedness, and readiness reviews are emphasized.

• Logistic support planning, the use of logistic annexes, and review of logistic readiness consideration at key decision points are instituted.

• Zero-base and mission budgeting procedures are applicable.

THE IMPACT

With regard to the impact of OMB Circulars and revisions to DOD Directives, the changes are significant in many respects. Not only do they impact on management policies and procedures but also in the placing of emphasis.

Impact on the Acquisition Process

There is a direct and immediate impact at all levels within the Navy, primarily with regard to that portion of the process prior to Milestone II decision. The emphasis placed on the determination and documentation of a mission need, and timely reaffirmation of that need, imposes a new and additional workload commencing with identification of the need and extending throughout the decisionmaking process. This is expected to result in the necessity for earlier and increased involvement in program initiation by ASN(RES), especially in coordination with OSD and CNO. The decisionmaking process explicitly and implicitly invokes documentation, consultation, and formal meetings by DNSARC and DSARC, in which key Navy personnel must play a major role.

Implementation of the new policies and procedures demands top-level management attention, especially with regard to determination of mission needs and in judicious communication with Congress. The emphasis on mission budgeting and zero base budgeting undoubtedly will result in unprecedented examination of program budgets by both the General Accounting Office and Congressional Committees.

Impact on Organizations

The new requirements do not, per se, require specific changes in organization or responsibilities already assigned. However, they require that the authority, responsibility, and accountability for management be more explicitly defined and assigned. This raises fundamental questions on the roles that should be assigned within the Navy Secretariat and the extent to which the Secretariat will be held accountable for (i) management shortcomings and

and (ii) adherence by lower level management to prescribed policies and procedures. The main issue involves the means by which the Secretariat will carry out assigned responsibilities without imposing new and burdensome requirements for data or reporting or establishing any new management "layering."

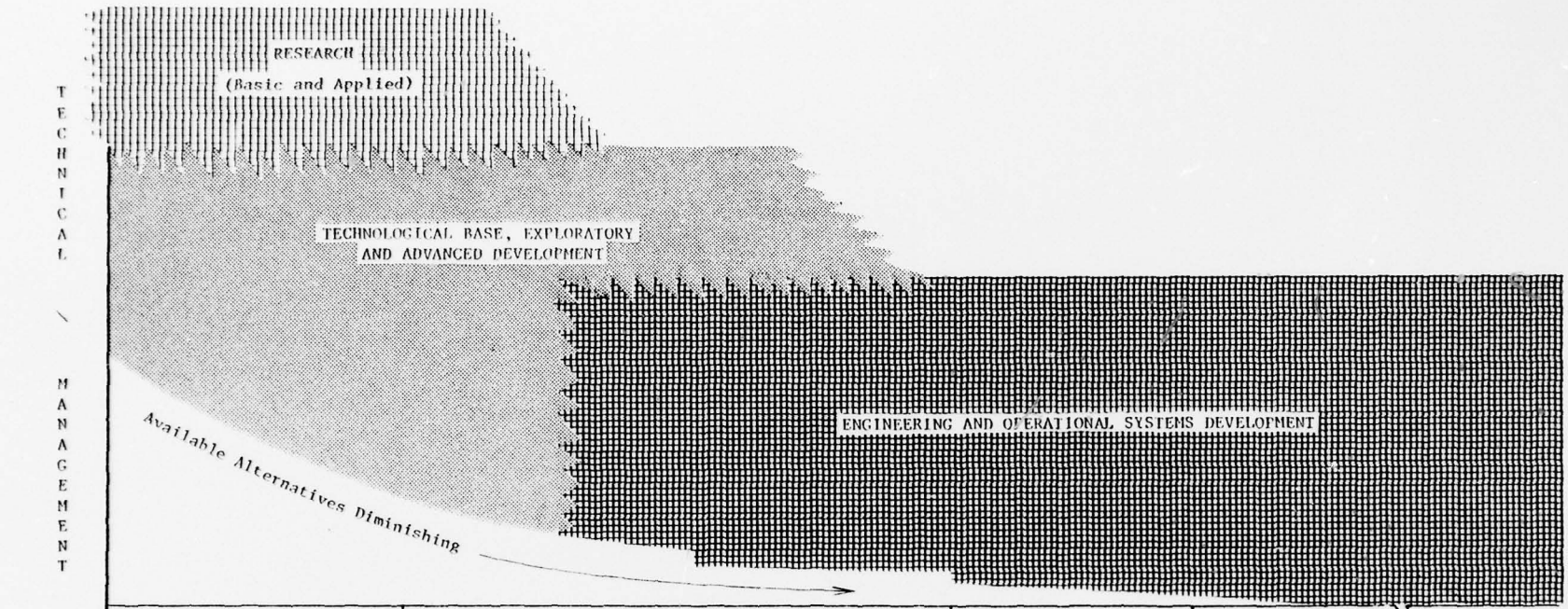
The emphasis which the new directives place on production readiness reviews and on logistics planning and documentation has resulted in the establishment of OSD offices to implement the new concepts. The implication may be drawn that specific organizational assignment or realignment to accommodate these requirements in the Navy are appropriate.

THE PROCESS

The following figures and descriptions are intended for use as a ready reference guide to the overall system acquisition process and, more specifically, to promote understanding of changes introduced into the major system acquisition process in implementing OMB Circular A-109 concepts. We believe that such material will be useful to staff personnel involved at any level or in any aspects of system acquisitions. The first figure is an overall depiction of the phased system acquisition process as it relates to technology, schedule and management alternatives. The next five figures depict the individual phases and milestone decision points of the acquisition process.

THE SYSTEM ACQUISITION PROCESS

(TECHNOLOGY/MANAGEMENT ALTERNATIVES/SCHEDULE RELATIONSHIPS)



PHASES	PRE-CONCEPTUAL EFFORT	CONCEPTUAL EFFORT		Full-Scale Development	Production (Limited or Full)	Deployment and Operation
	Determination of Mission Need	Exploration of Alternative Concepts	Demonstration and Validation			
KEY DECISIONS		Program Initiation MILESTONE 0	Demonstration and Validation MILESTONE I	Full-scale Engineering Development MILESTONE II	Production/ Deployment MILESTONE III	
PRODUCTS	• Studies/analyses to assess mission needs • Threat evaluation • Technology assessment • Operational analyses • Resources determination • Constraints • Impact assessment	• Program manager • Acquisition strategy • Tech base development • Solicit multiple alternative concepts • Cost/Sched estimates • Analysis of proposals • Concepts selected	• Design analyses • Risk assessment • Trade-offs • Prototype development • Develop test and evaluation • Contractual actions • Operational need analysis	• Competition • Contracts • Hardware development • System specs • Develop test and evaluation • Operational need analysis	• System/Sub-system production • Support equipment production • Training • Operational test & evaluation	• Operation • Provisioning • Operational assessment

Figure 1

THE SYSTEM ACQUISITION PROCESS

(OMB CIRCULAR A-109, DODD's 5000.1 and 5000.2)

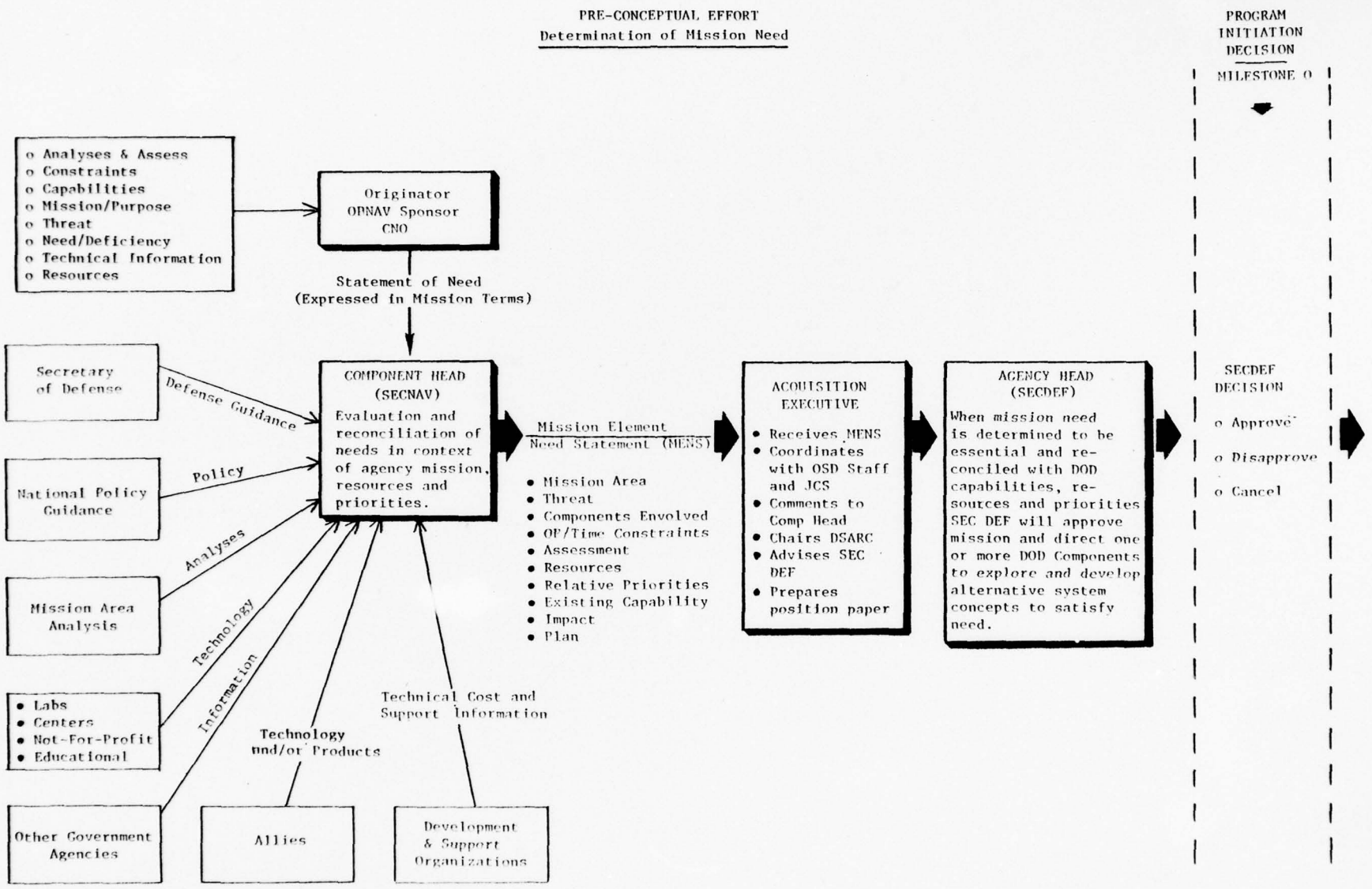


Figure 2

THE SYSTEM ACQUISITION PROCESS

(OMB CIRCULAR A-109, DODD's 5000.1 and 5000.2)

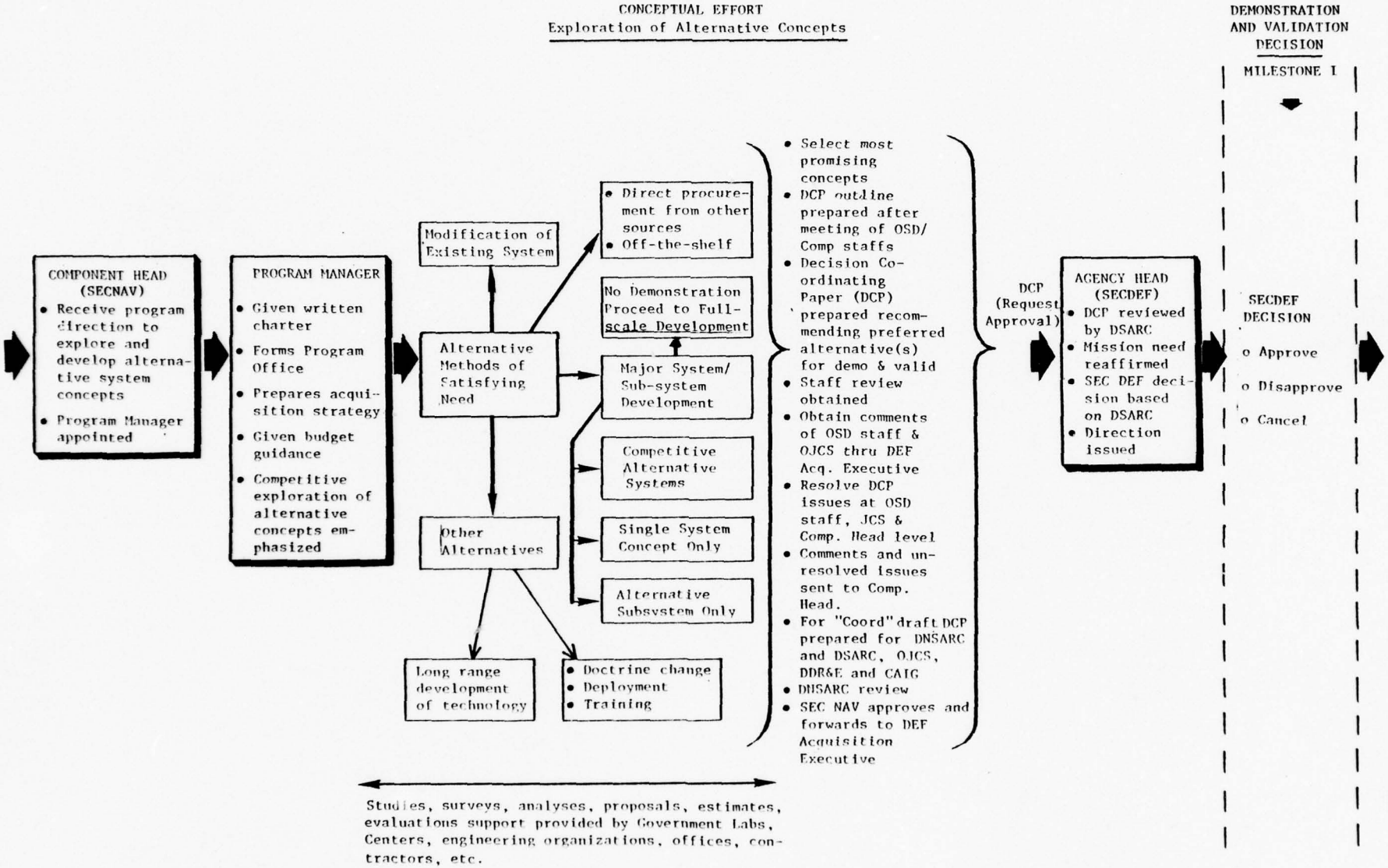


Figure 3

THE SYSTEM ACQUISITION PROCESS

(OMB CIRCULAR A-109, DODD's 5000.1 and 5000.2)

CONCEPTUAL EFFORT
DEMONSTRATION AND VALIDATION

FULL-SCALE DEPLOYMENT DECISION
MILESTONE II

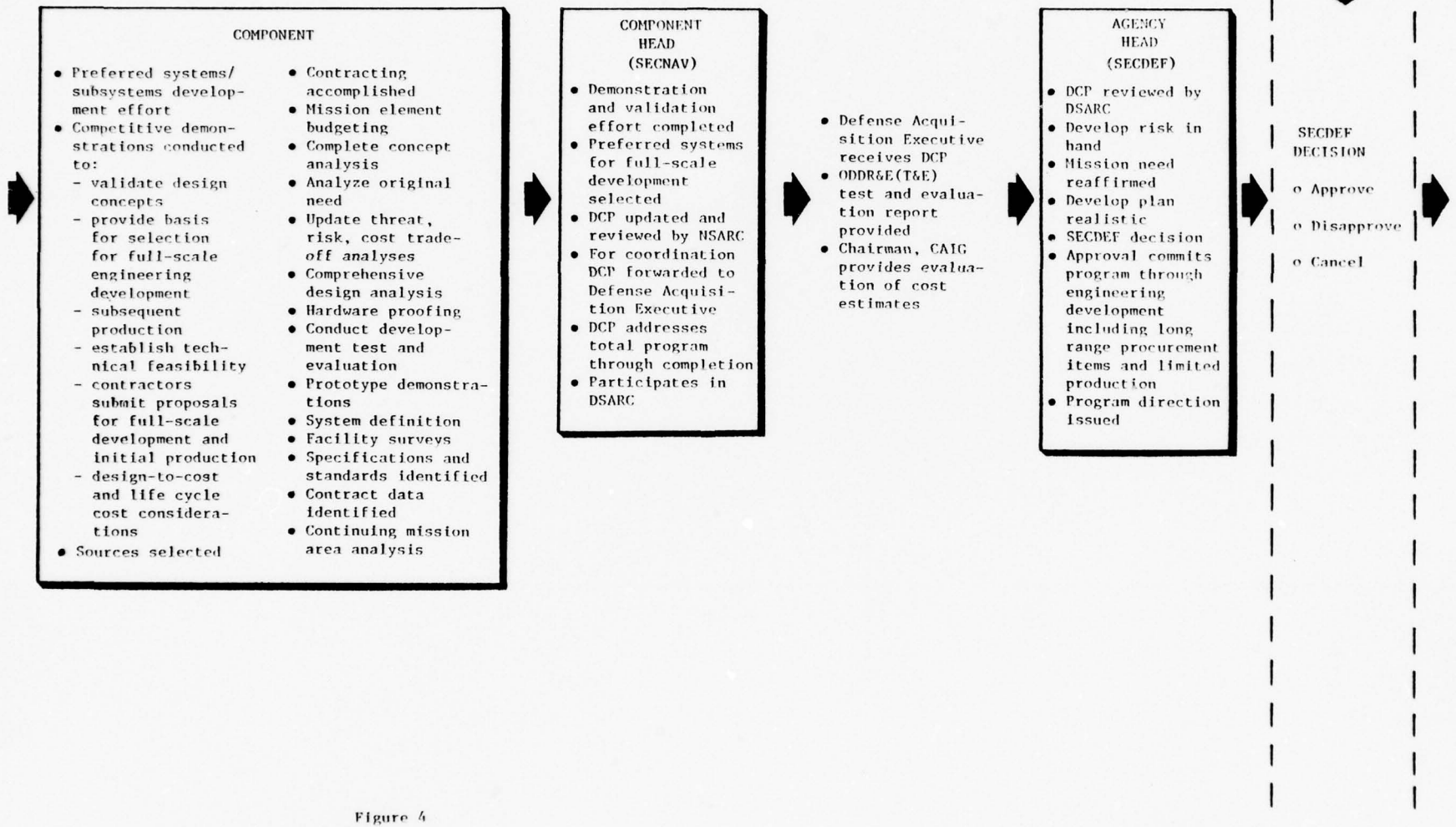


Figure 4

THE SYSTEM ACQUISITION PROCESS

(OMB CIRCULAR A-109, DODD's 5000.1 and 5000.2)

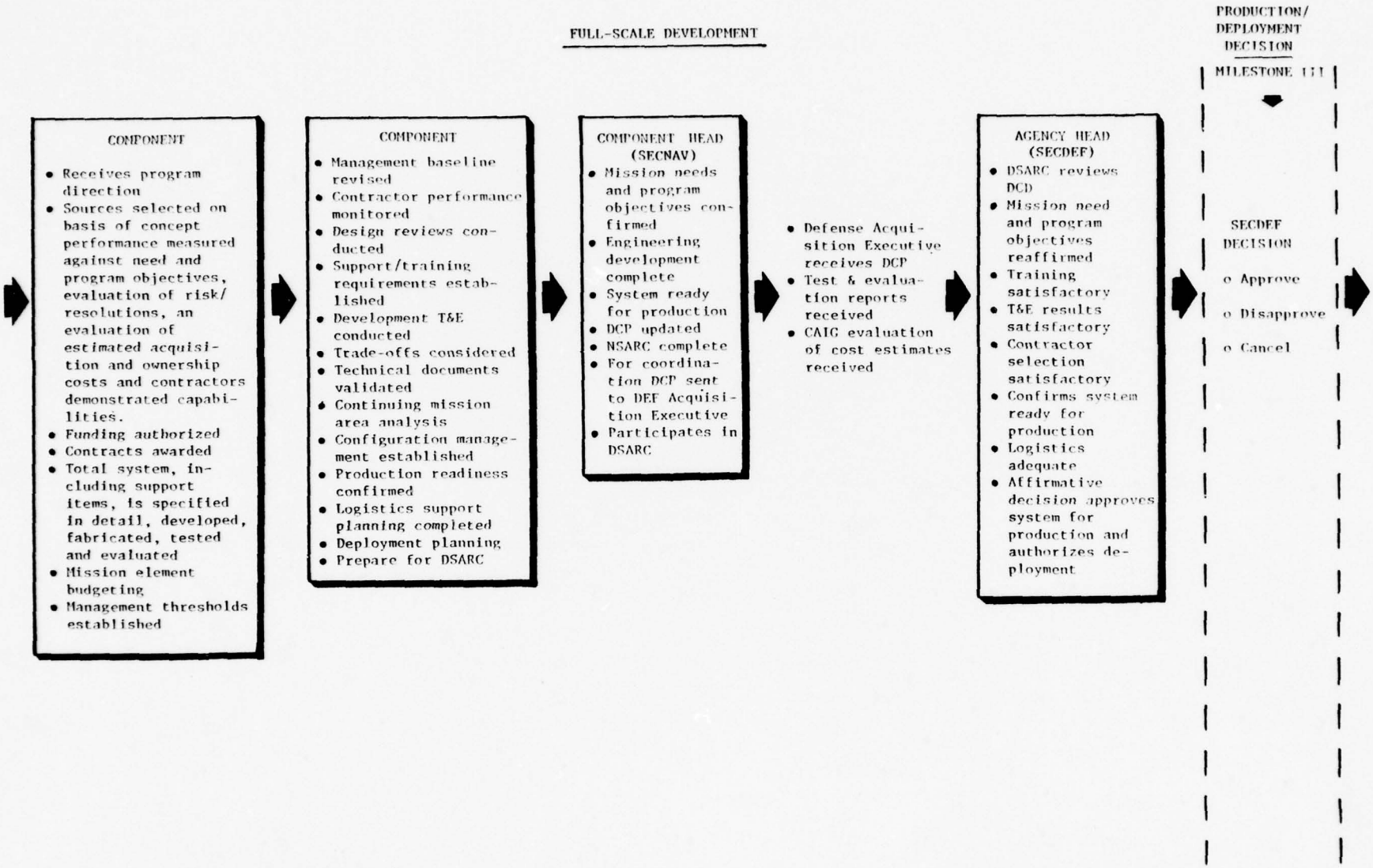


Figure 5

THE SYSTEM ACQUISITION PROCESS

(OMB CIRCULAR A-109, DODD's 5000.1 and 5000.2)

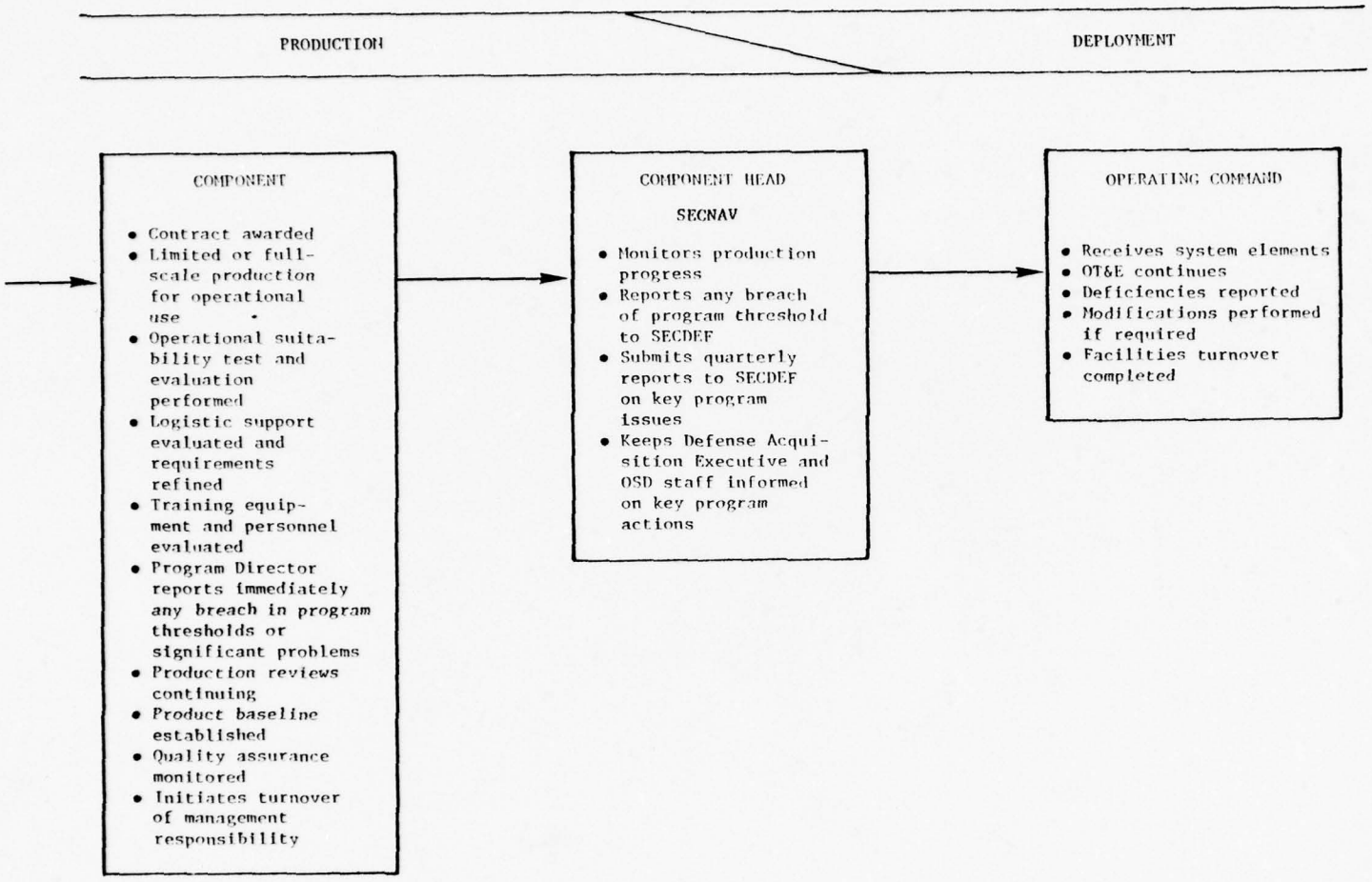


Figure 6

OVERVIEW OF PPBS

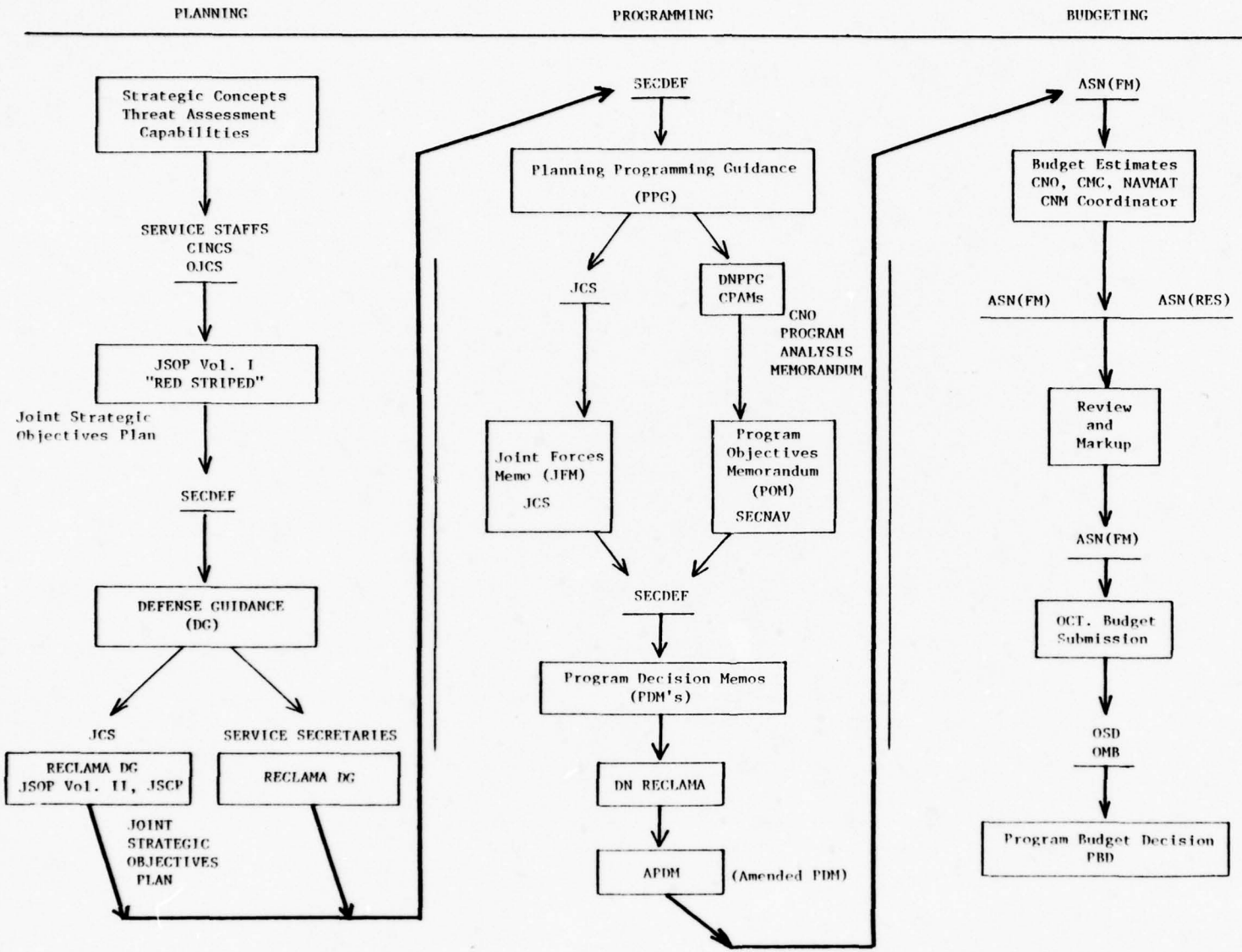


Figure 7

FUNCTIONAL RESPONSIBILITIES AT THE SECRETARIAL LEVEL

The review and analysis of Directives and Instructions identified organizations or positions in the Navy Secretariat that have specific responsibilities for system acquisitions.* The review also identified affirmative actions required, functions performed, management oversight responsibility, etc. As is described in detail in the section dealing with the review, the Directives and Instructions were found deficient in the delineation of authority and assignment of responsibilities within the Secretariat. One intended product of the review was to be a concise portrayal of management responsibilities and functions of each Assistant Secretary of the Navy (ASN) and, by matrix and descriptions, to provide in detail the interface arrangement among the Assistant Secretaries.

Such a matrix, along with narrative descriptions of functions to be performed and responsibilities assigned, was completed using the products of the review. However, since the Directives and Instructions were deficient in the important particulars noted above, the limitations made it impossible to depict sufficient management aspects for a resulting document to serve its intended purpose. Therefore, we supplemented the material in order to establish a valid foundation for a document that would be useful to staffs at both SECNAV and OPNAV levels. To do this, it was necessary to draw on information gained through interviews and discussions, consideration of past practices, and our own experience as to the most logical placement of functions and organizational relationships within the Secretariat.

At the time of this writing, SECNAV Instructions implementing the provisions of DODD's 5000.1, 5000.2 and 5000.3 have not been available. Therefore, we believe that the document, consisting of a matrix and phase descriptions, prescribed on the following pages should be updated with any new information and coordinated through the Secretariat for refinement prior to publication. A proposed memorandum (following) is included for that purpose.

NOTE: Navy Acquisition Executive included in matrix (assignment and responsibilities presumed).

Memorandum for: The Undersecretary of the Navy
The Assistant Secretaries of the Navy
The Chief of Naval Operations

Subject: Responsibilities in Major Naval System Acquisitions

The enclosed chart and narrative descriptions of the Navy acquisition process and related responsibilities are the result of analyses, review, and discussion. The program phases and decision descriptions are based on the concepts set forth in OMB Circular A-109, Major System Acquisitions; DODDs 5000.1, Major System Acquisitions; and 5000.2, Major System Acquisition Process. The depiction of specific responsibilities in this manner is intended to provide a ready reference document for use by staffs in OSN and OPNAV.

I believe it would be useful to make such a document available to personnel involved in the preparation and processing of program documentation at SECNAV and OPNAV levels. Your comments or recommendations as to specific assignments of responsibilities and interfaces with other ASNs and CNO are welcome.

SECNAV Signature

PROPOSED MEMORANDUM

OFFICE OF THE SECRETARY OF THE NAVY

RESPONSIBILITIES IN THE PROCESS OF ACQUIRING MAJOR SYSTEMS

FUNCTIONAL RESPONSIBILITIES IN MAJOR SYSTEM ACQUISITIONS
(Secretarial Level)

	Conceptual Effort					Full-scale development decision Milestone "II"	Full-scale development	Production decision Milestone "III"	Production (limited or full)	Deployment operation
	Determination of mission needs	Program initiation decision Milestone "0"	Exploration of alternative concepts	Demons. & validation decision Milestone "I"	Demons. & validation					
SEC DEF		●		●		●		●		
SEC NAV		O		O		O		O		
NAV ACQ. EXEC	S	S	M	S	M	S	M	S	S	
ASN (RES)	S	S	P	P	P	P	P	P	P	S
ASN * (MRA&L)		S	S	S	S	S	S	M	P	P
ASN (FM)		S	M	S	M	S	M	S	M	M
	CNO RESP									

● Primary responsibility OSD

O Primary responsibility DN

P Principal responsibility within OSN

S Secondary responsibility within OSN

M Monitoring responsibility

* Primary responsibility assigned ASN(MRA&L) all phases of SCN acquisitions

DETERMINATION OF MISSION NEED

This is the first phase of the system acquisition process. Determination of a mission need is based on analysis of an established mission responsibility, reconciled with overall capabilities, priorities, and resources.

When analysis of an agency's mission shows that a need for a new major system exists, such a need should not be defined in equipment terms, but should be defined in terms of the mission, purpose, capability, agency components involved, schedule and cost objectives, and operating constraints.

A mission need may result from a deficiency in existing agency capabilities or the decision to establish new capabilities in response to a technologically feasible opportunity. This is a highly iterative process that must apply in the reaffirmation of a mission need at each decision point in the acquisition process.

Generally, the following actions are performed during this phase: Mission area analysis. Analysis and assessments of threat, risk, cost, tradeoffs, etc. Assessment of need in terms of deficiency. Consideration of known constraints. Assessment of impact of not acquiring capability. New technology related opportunities.

The documentary product of this phase is the Mission Element Need Statement (MENS). It is used to describe the mission area and to justify the initiation of a new major system. Stated in terms of mission need, it is prepared by CNO or CMC for approval by SECNAV and SECDEF.

Responsibilities

SECNAV takes action through the Defense Acquisition Executive to obtain OSD Staff and OJCS comments on the Mission Element Need Statement (MENS) prepared by CNO or CMC. When completed, the MENS together with OSD comments is forwarded to SECDEF through the Defense Acquisition Executive. He establishes procedures for mission area analysis and defines mission elements.

ASN(RES) monitors implementation of DOD and DN policies and practices in system acquisitions, including MENS preparation, reviews, and secretarial level coordination. He maintains cognizance of technology requirements and new technology opportunities, monitors mission area analyses, studies, assessments, etc., and serves as leader in dialogue with OSD on estimates of threat, cost, risk, tradeoffs, and pros and cons of alternative solutions to satisfying a mission need. He is responsible for management of the RDT&E Navy appropriation and for monitoring planning for subsequent phases of the acquisition process.

Management Update: Navy Major System Acquisitions

September 1977

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ASN(MRA&L) has no specific responsibilities in this phase.

ASN(F&M) advises SECNAV and ASNs on overall budgetary matters.

OPA advises SECNAV and Civilian Assistants on Planning, Programming, and Budgeting System (PPBS) and analyzes the validity, adequacy, feasibility, and balance of proposed programs. He also monitors staffing of MENS, DCPs, and NDCPs within the Secretariat.

PROGRAM DECISION (MILESTONE 0)

This is a decision by SECDEF in response to a request (MENS) from SECNAV to proceed to identify and explore alternative solutions to a mission need. If the mission need is determined to be essential and reconciled with other DOD capabilities, resources, and priorities, SECDEF will approve and direct one or more DOD components to explore and develop alternative systems concepts. SECDEF approval is required prior to commitment of funds. The decision is documented by an action memorandum and in the Five-Year Defense Program (FYDP).

Responsibilities

SECDEF makes his decision based on OSD staff and OJCS comments, the content of the MENS, and recommendations of the Defense Acquisition Executive. His decision shall state the condition of program initiation. Program guidance is issued at this point.

ASN(RES) reviews MENS and advises SECNAV.

ASN(MRA&L) advises SECNAV.

ASN(FM) advises SECNAV.

EXPLORATION OF ALTERNATIVES

This phase begins with exploration of alternative solutions to satisfying a need. Optional means of satisfying a need include modification of an existing system, off-the-shelf procurement, long-range development of technology, etc., as well as a system/subsystem development.

Alternative system design concepts are explored within the context of DN's mission needs and objectives. Emphasis is placed on generating innovation and conceptual competition and system concepts are solicited from a broad base of sources.

Alternative system concepts are based on the considerations of mission need, schedule, cost, capability objectives, and operating constraints.

During this phase: Proposals are requested, evaluated, and reviewed. Tradeoffs are considered. A Program Manager is assigned. An acquisition strategy is formulated.

Finally the most promising concepts are selected and recommended for SECNAV and SECDEF approval. Development, Test, and Evaluation (DT&E) are commenced as early as practicable.

The principal documentary product of this phase is the Decision Coordination Paper. Its purpose is to support NSARC and DSARC reviews for SECDEF Demonstration Validation Decision (Milestone I).

Responsibilities

SECNAV defines authority and reporting channels of Program Manager and through ASN(RES) maintains cognizance of actions taken in selecting most promising alternative concepts. The Secretary or Under Secretary chairs DNSARC and, on consideration of the advice and counsel of DNSARC, forwards program recommendations and supporting documentation to SECDEF.

ASN(RES) participates in planning meeting with OSD Staff and acts as principal adviser to SECNAV in overall coordination of acquisition functions. Monitors both in-house and contractor efforts and planning for future activities. Takes lead within the Secretariat to provide a timely response to Draft DCP circulation. Forwards "For Comment" DCP to the Defense Acquisition Executive after obtaining input/coordination of the Navy Secretariat. Serves as DNSARC member. Revises DCP in response to SECNAV guidance. Prepares memorandum summarizing options and actions recommended. Assures continuation of mission area analyses and inclusion of Technical Assessment Annex in the DCP.

ASN(MRA&L) monitors preparation of logistics planning documents and advises SECNAV.

ASN(FM) reviews and comments on NDCPs and DCPs. Assesses and provides comment to SECNAV on impact of funding requirements. Plans for management information and program control and validating requirements. Performs economic analyses and program evaluation as appropriate. Participates in staffing of financial management and cost sections of DCPs prior to DNSARC.

DEMONSTRATION AND VALIDATION DECISION (MILESTONE I)

This decision, made by SECDEF and supported by DSARC, will reaffirm the mission need and approve one or more selected alternatives for competitive demonstration and validation or authorize the development of a noncompetitive (single concept) system. He may, however, make some other decision, such as to cancel the program, initiate a modification program, or develop long-range technology. An updated DCP identifying constraints and specific program direction shall be signed by SECDEF and returned to DN.

Responsibilities

SECNAV advises SECDEF relative to the program under consideration. May participate as adviser to DSARC if desired.

ASN(RES) member of DNSARC and principal adviser to SECNAV on RDT&E and system acquisitions at this decision point.

ASN(MRA&L) participates as member of DNSARC and assures adequacy of Logistics Annexes.

ASN(FM) participates as member of DNSARC and advises SECNAV on fiscal considerations of the program.

DEMONSTRATION AND VALIDATION

This is the phase during which competitive demonstrations/tests are performed to verify that the chosen concepts are sound, will perform in an operational environment, and will provide a basis for the selection of the system design concept(s) to be continued into full-scale development and subsequent production

Demonstrations with full-scale prototypes should be performed when practical and feasible. Competitive prototype demonstrations of critical subsystems are performed if demonstrations at system level is not feasible. Development of a single system design concept may be considered, however, if justified by reasons of urgency or the financial or physical impracticability of demonstrating alternatives.

During this phase, the major program characteristics (technical, cost, and schedule) are closely scrutinized. Contractors are required to submit firm proposals for full-scale engineering development and initial production upon completion of demonstrations.

Responsibilities

SECDEF, through DDR&E and ASDs monitors the demonstration and validation phase, assuring the program thresholds are not exceeded or, if exceeded, the program is critically reviewed.

SECNAV, through ASNs maintains cognizance of demonstration and validation test results and evaluations and advises SECDEF of program status.

ASN(RES) participates in planning meeting with OSD and staff and OJCS and assists SECNAV in overall coordination and execution of phase activities. Monitors execution of program, both in-house and under contract. Maintains cognizance of solicitations, proposal evaluations, selection of contractors, contract award, etc., and planning for future program activities. Performs continuing mission area analyses. Advises SECNAV on program status with respect to DCP thresholds, risk assessments, and planned actions. Takes lead in processing DCP and is DNSARC member. Revises DCP as necessary to reflect SECNAV position. ASN(FM) monitors overall program to assure that it is in balance with the DN budget and that the proposed budget and funding is reasonable and accurate. Is responsible for coordination of the disciplines used to manage and control program information.

FULL-SCALE DEVELOPMENT DECISION (MILESTONE II)

This decision, made upon completion of the demonstration and validation phase by SECDEF and supported by DSARC, may be to proceed to full-scale development or some other decision concerning an alternative solution to a mission need.

If SECDEF decision is to proceed to full-scale development, he will reaffirm the mission need and approve engineering development, including procurement of long-lead production items and limited production for OT&E.

Management thresholds are established by SECNAV and approved by SECDEF for selected performance, cost, and schedule parameters.

An updated DCP addresses the total program through completion, establishes management thresholds, and contains firm program schedule, cost, and performance information.

Responsibilities

SECDEF, based on DCP and DSARC recommendations, makes decision to proceed to full-scale development or to direct some other course of action.

SECNAV advises SECDEF as to recommended course of action. Participates as adviser to DSARC.

ASN(RES) member DNSARC and principal adviser to SECNAV on system acquisitions at this decision point, assures that DCP contains an adequate Technology Assessment Annex, and is responsible for full coordination of the DCP which is the basis for SECDEF decision. After decision II, reviews and comments on Selected Acquisition Reports (SARs) with emphasis on R&D matters, technical data, and system acquisitions.

ASN(MRA&L) evaluates proposed program and the decision alternatives, particularly from the standpoint of production facilities and logistics and, through the DCP and DNSARC, provides recommendations, assures adequacy of Logistic Annexes, and after decision II reviews and comments on production and logistics aspects of SARs.

ASN(FM) evaluates proposed program and the decision alternatives, particularly from the standpoint of overall budget and funding profile and accuracy of the representation of cost and funding and, through the DCP and DNSARC, provides recommendations. After milestone decision II, reviews and coordinates SARs and prepares reports for submission to SECDEF.

FULL-SCALE DEVELOPMENT

During this phase, the system including all of the items necessary for its support (training and maintenance equipment, handbooks, etc.) is designed, fabricated, tested and evaluated.

Of special importance in this phase is test and evaluation, i.e., both development and operational testing. Logistics support, production, and training planning are completed and verification reviews conducted.

The intended output of this phase is a hardware model(s) and the documentation needed for inventory use.

Responsibilities

SECDEF, through DDR&E and ASDs, monitors the Full-Scale Development Phase assuring that established thresholds are not exceeded, or if exceeded, the full program is critically reviewed.

SECNAV has overall responsibility for execution of the program, both in-house and under contract, and for advising OSD of program status, including anticipated or actual breaching of thresholds.

ASN(RES) has principal responsibility within OSN for assuring that the program proceeds in accordance with the decision DCP. Monitors the progress of the program, including procurement actions, contractor performance, planning future activities and the accomplishment of key program events and achievement milestones. Keeps SECNAV informed of program status on a periodic basis and of any necessary adjustments as they arise. Continues mission area analysis.

ASN(MRA&L) monitors logistics and production activities, collaborates with ASN(RES) and ASN(FM) on planning future activities, and advises SECNAV. Prepares for assuming principal OSN responsibilities in Production Decision and production activities.

ASN(FM) monitors the evolving program to assure that it is in balance with DN budget and that the proposed budget and funding is reasonable. He is responsible for Selected Acquisition Reports and advises SECNAV on program status and collaborates with ASN(RES) and ASN(FM) in planning future program activities.

OPA reviews SARs and advises SECNAV.

PRODUCTION DECISION (MILESTONE III)

This decision, made by SECDEF, supported by DSARC, decides whether to produce the item for operational use, the initial quantity to be produced, and plans for future production.

This program decision usually encompasses business considerations such as whether to seek competition or proceed sole-source, the type of contract to be used, facilities involved, etc., The decision DCP will identify the next decision, define the limits of program approval and specify thresholds on key program characteristics.

The documentary products of this decision are a DCP containing firm program cost, schedule, and performance information and an action memorandum both signed by SECDEF.

Responsibilities

SECDEF, based on DCP and DSARC recommendations, makes production decision, i.e., whether to proceed into production for operational use and the quantity to be produced.

SECNAV advises SECDEF as to recommended course of action and participates as adviser to DSARC. He or Under Secretary chairs DNSARC.

ASN(RES) has principal responsibility within OSN for advising SECNAV at this decision point. Provides input to DNSARC as to whether the programs are technically ready for production and is responsible for handling and coordination of program documentation involved in the decision process. Participates in DNSARC.

ASN(MRA&L), in conjunction with ASN(RES), plans for orderly assumption of principal program cognizance. Reviews and comments on MRA&L aspects of program when DCP is being prepared for decision. Participates in DNSARC.

ASN(FM) evaluates the proposed program and the decision alternatives, particularly from a standpoint of overall budget and funding and an accurate representation of cost. Provides recommendations through DCP and DNSARC.

PRODUCTION

During this phase, the defense system, including training and support equipment, spares etc., is produced for operational use. Operational Test and Evaluation (OT&E) is an important aspect of this phase, and changes found necessary as a result of intensive testing are introduced as appropriate.

Configuration audits and reviews are conducted and full logistics support is implemented.

Responsibilities

SECDEF, through ASDs and DDR&E, monitors production phase with particular concern for program thresholds.

SECNAV is responsible for execution of the program and through ASNs and CNO monitors program progress and advises SECDEF on status. Quarterly post-Milestone III reports are provided as well as anticipated or actual breaching of program thresholds.

ASN(RES) has principal OSN responsibility for production until transfer date (a date agreed upon in DNSARC for transfer of principal responsibility to ASN(MRA&L). This includes responsibility for monitoring accomplishment of key program events/milestones and for notifying SECNAV of program status, especially those aspects of DCP thresholds.

ASN (MRA&L) has principal OSN production responsibility after transfer date. This includes not only assuming responsibility for monitoring program progress and advising SECNAV of status but of continuing responsibilities in logistic support and facilities.

ASN (FM) is responsible for continuing monitorship of program budget and funding profile for assuring balance with other DN programs. Also, is responsible for SAR reports and advises SECNAV on cost, schedule, and technical performance status.

DEPLOYMENT/OPERATION

During this phase the Navy defense systems are provided to and used by operational units.

Responsibilities

SECDEF, through ASDs and DDR&E, monitors deployment and employment of the system.

SECNAV has primary responsibility for conducting the deployment and for its employment. Continued monitoring of program thresholds is still necessary, and, if changes are necessary, SECDEF is notified.

ASN (MRA&L) has principal OSN responsibility for deployment, must monitor program progress, and report any anticipated or actual breach in thresholds to SECNAV.

ASN (RES) provides technical support, if acquired, in evaluation of proposed program changes or in carrying out actual changes.

ASN (FM) continues to monitor budget and funding aspects of the program and provides program status and fiscal reports.

This section focuses on three topics of major concern in the initiation of major system acquisition programs: (1) Relationship of OMB Circular A-109 and DOD's Planning, Programming, and Budgeting System (PPBS). (2) Attitudes toward Circular A-109. (3) Program documentation.

RELATIONSHIP OF OMB CIRCULAR A-109 AND PPBS

OMB Circular A-109 will have significant impact on major system acquisitions, but it has not altered the PPBS process. It has, however, placed greater emphasis on the importance of acquisition planning in the initiation of major system programs.

Implementation of Charles J. Hitch's PPBS in the Department of Defense in 1961 represented a major change in defense management and the most systematic overall approach to Federal budgeting up to that time. Recent changes have been less sweeping and, in many cases, are simply refinements of the original Hitch approach to decision-making in the Pentagon.

However, even with PPBS, DOD continued to experience serious problems in the control and management of major system acquisitions. The Commission on Government Procurement, created by Public Law in 1969, was a reflection of the uneasiness felt by legislators about the methods and outcome of Federal procurement.

The Commission recommended several basic changes in the Federal procurement process. Of the Commission's 149 recommendations, 12 call for basic changes in the acquisition of major systems, and the essence of the 12 recommendations have been given the force of law by OMB Circular A-109.

PPBS--An Overview

DOD's Planning, Programming, and Budgeting System has not been altered in its basic thrust for 15 years. Such stability is a sign of its soundness and of general acceptance of PPBS procedures by the staffs, offices, and officials that participate in the system.

Figure 7 outlines key details of the three main segments of PPBS, the dual military and civilian channels for review and comment, and the points of interaction between them to ensure that SECDEF has the benefit of a full range of concepts. The reclama

and feedback elements further ensure that information is current and accurate. Needs drive the process. Fiscal realities are constraints, but they are not imposed without ample opportunity for all participants to make a reclama and to readjust programs.

Planning

The planning segment of PPBS (see Fig. 7) is primarily a military function. The Joint Chiefs of Staff (JCS) is the principal military adviser to the President, the National Security Council, and the Secretary of Defense. Each year, JCS starts the PPBS cycle by submission of its concept of military strategy and force planning needed to attain national security objectives. This document, the Joint Strategic Objectives Plan (JSOP), represents a consensus of military views and is not fiscally constrained. Inputs to JSOP come from the following sources: Service Staffs. Commanders-in-chief of Unified and Specified Commands (CINCS). Joint Chiefs of Staff. JCS documents that assess threat, strategic concepts, current capabilities, and needed R&D projects.

The principal studies and plans developed in the planning segment of PPBS are:

JIEP	(Joint Intelligence Estimate for Planning)
JLREID	(Joint Long-Range Estimative Intelligence Document)
JLRSS	(Joint Long-Range Strategic Studies)
JSOP-Vol. I	(Joint Strategic Objectives Plan)
JSOP-Vol. II	(Joint Strategic Objectives Plan)
JRDOD	(Joint Research and Development Objectives Document)
JSCP	(Joint Strategic Capabilities Plan)
MLRP	(Marine Corps Long-Range Plan)
MMROP	(Marine Corps Mid-Range Objectives Plans)
NCP	(Navy Capabilities Plan)
MCP	(Maine Corps Capabilities Plan)
NS&MP	(Navy Support and Mobilization Plan)
DG	(Defense Guidance)
DNPPG	(Department of the Navy Planning and Programming Guidance)
CPPG	(CNO Policy and Planning Guidance)
CMC PPPG	(CMC Program Policy and Planning Guidance)
CPAM	(CNO Program Analysis Memoranda)

Development of Strategic Concepts. National strategy is developed by weighing national goals and objectives against limits imposed by geography, technology, economics, estimated adversary reactions, probability of success of R&D projects, and many other factors. In DOD, strategic concepts are developed by a methodical process in which many views and ideas are evaluated in the light of scientific, technological, and fiscal realities.

Strategic concepts are tempered into capability plans in an iterative process that involves the Service staffs, the Joint Chiefs of Staff, and the Service Secretaries. Capability plans are dependent on manpower, on existing weapons, and on the acquisition of new systems and material designed to overcome deficiencies or to replace obsolete equipment. Acquisition programs for major systems must therefore be tailored to fit the national needs identified in the formulation of strategic plans and in the assessment of present capabilities.

Implicit in A-109 is the linkage of strategy, programming, and acquisition even though A-109 does not address specifically the process of developing and approving strategic goals. Prior to milestone zero, the evolution and approval of strategic concepts provide a basis for agreement on mission needs. The A-109 guidelines for managing major system acquisitions aim to preclude many of the shortcomings in Federal procurement that have caused controversy for more than two decades. A-109 prescribes procedures to ensure that initial decisions--which are generally considered the most significant in every major acquisition program--are based on bona fide needs and realistic appreciation of technical and managerial problems.

A recent General Accounting Office (GAO) memorandum states that GAO reports on major systems will "address first whether agency implementing policies, procedures and actions conform to Circular A-109 and secondly, whether individual programs are being conducted accordingly."

Red-Striped JSOP. The presentation of a red-striped JSOP to SECDEF is a major step in the PPBS cycle. Neither SECDEF nor the Service Secretaries have any formal input to JSOP. Service disagreements on points that cannot be resolved in the joint arena are footnoted in the JSOP so that SECDEF will be aware of reservations and points of contention among the Services. In general, however, JSOP represents a unanimous military view.

ASN(RES) Planning Interface. The Service Secretaries do not have a formal method of providing input to the JCS documents and are not administratively positioned to approve or disapprove Service inputs to JCS documents. Nevertheless, a wide range of interactions permits Secretariat views and data to be incorporated in JCS planning documents. These interactions range from informal talks among OPNAV and OPA staff members to formal meetings and conferences that address specific problems--Navy problems that are also JCS problems. In the process of solving Navy problems through such interactions, courses of action may crystallize that readily apply to JCS issues.

For example, what may be an issue in the Joint R&D Objectives Document (JRDOD) may also be very much a Navy R&D issue and ASN(RES) may have insights or technical knowledge that the OPNAV action officer for the JRDOD would find helpful in resolving a problem in the JCS arena.

Uncovering technical information from diverse sources and candid discussions of common problems are basic tenets of effective staff. This is particularly so in matters of research and advanced technology. The value of such feedback and exchange between the OPNAV staff and the Secretariat depends on the caliber of the staff, the level of mutual trust and confidence that prevails in the Navy Department, and the direction given the Navy Department staff by SECNAV and CNO.

Development of SECDEF Defense Guidance (DG). Each year, during autumn, SECDEF sets forth general defense objectives and policies that provide an authoritative overview of defense policy and establish the criteria for force development. Development of the DG is an iterative process. Primary input to the initial DG draft are JSOP (vol. I) and analyses developed in the OSD Program Evaluation Office.

The OSD staff is responsible for drafting the DG and promulgating it to the Service Secretaries, JCS, and the Directors of Defense Agencies. Even though the first draft looks like a final report, it is subjected to scrupulous review and comment by the Services, JCS, and the Service Secretaries. A reclama opportunity is provided after SECDEF responds to the initial comments. As a result, the DG reflects up-to-date information and a comprehensive range of objectives and policy, still without specific fiscal constraints.

Figure 8 outlines the major steps in DG development, The DG is the pacing item for program formulation and initiation. It does not address details and specifics of programs, but is is not likely that funding would be provided for a program that could not be related to the DG.

The importance of initial planning is highlighted by A-109. The feasibility of introducing new programs and obtaining OSD approval of a Mission Element Need Statement (MENS) will be increased if the DG alludes to the particular need. Circular A-109 takes the position that the wording of the DG should not preclude or inhibit a particular approach, even if it is in a mission area not generally associated with a particular service; rigid lines bounding mission areas must bend with opportunities presented by new technology, and the overall interests of national defense must take precedence over previously recognized mission prerogatives of the Services.

Perhaps the most significant action taken by the ASN(RES) staff during the planning segment is to ensure that Navy strategic planners are fully aware of the potential for new systems offered by advances in technology. It is important, therefore, that technically oriented people work closely with the strategic and long-range planners.

Programming

Final approval of the DG by SECDEF signals the start of the programming segment (see Fig. 7). The DG provides the basis on which OSD and the Services develop programs and budget allocations. At this point, ASN(RES) has had the opportunity to become fully cognizant of the concepts and planning basis of PPBS, to make formal and informal technical inputs to the DG, and to pursue Navy research, engineering, and systems issues that will require SECNAV decisions.

The principal documents developed in the programming segment of PPBS are:

FYDP	(Five-Year Defense Program)
PPG	(Planning and Programming Guidance)
JFM	(Joint Force Memorandum)
POM	(Program Objectives Memorandum)
PDM	(Program Decision Memorandum)
DCP	(Decision Coordinating Paper)
PCR	(Program Change Request)
PCD	(Program Change Decision)
MPCR	(Memorandum Program Change Request)

Planning and Programming Guidance. The first major step in the programming segment is promulgation of SECDEF Planning and Programming Guidance (PPG). The PPG amplifies the DG and adds fiscal and material guidelines for JCS, the Services, and Defense Agencies in the formulation of force structures and the Five-Year Defense Program (FYDP).

JFM and POM. Based on the policy, force planning guidance, and fiscal constraints presented in the PPG, JCS then submits a Joint Force Memorandum (JFM) to SECDEF, and each Service recommends and describes its total program objectives in a Program Objective Memorandum (POM). The review and comment process is via dual channels (see Fig. 9).

Feedback and communication with the OSD staff is accomplished via the CNO Program Analysis Memorandum (CPAM) and the Department of the Navy Program Objective Memorandum (POM). The CPAM (see Fig. 7) is prepared by OPNAV and approved by CNO in the course of the CNO Executive Board (CEB) review. Seven CPAMs and a Summary CPAM form the basis for POM development. ASN(RES) is responsible for staffing and presenting the R&D section of the POM to SECNAV for decision. A schedule of these activities is listed in Appendix F.

Then SECDEF reviews the JFM and the POMs and issues a Program Decision Memorandum (PDM). Decisions that the Navy Department desires to have reconsidered are identified in a formal SECNAV request to SECDEF. Approved changes appear as Amended Program Decision Memorandum (APDM). The PDM, as modified by APDM, is then reflected in the FYDP as the approved program.

Budgeting

The budget process is the final segment of the PPBS. It is through the budget that planning and programming are translated into annual funding requirements (see Fig. 7).

Implementation of A-109 does not, and is not intended, to supercede the PPBS process. Rather, it is a logical refinement of planning, programming, and budgeting.

Mission Budgeting. It is not yet clear exactly what form budget submissions will take in fiscal 1979. The GAO report Mission Budgeting--Discussion and Illustration of the Concept in Research and Development Programs, July 27, 1977, recommends that Congress begin to experiment with "mission budgeting" in carrying out its budget review, authorization, and appropriation functions.

The Congressional Budget Act of 1974 requires that, beginning in fiscal 1979, all agencies will present budgets in terms of agency missions and in accordance with OMB Circular A-11. The agencies have been directed to identify separately R&D funding for: (1) Technology base in support of overall agency missions. (2) Development effort for alternative system design concepts. (3) Full-scale developments.

Zero-Based Budgeting (ZBB). OMB Circular A-11 on the Preparation and Submission of Budget Estimates (revised June 29, 1977) includes information on zero-based budgeting techniques. The GAO report on mission budgeting notes that zero-based budgeting and "sunset" legislation, which Congress is actively considering, are compatible with and could reinforce a mission budget structure.

Navy R&D Budgeting. No matter how DOD budgeting is handled, the Navy must provide adequate fiscal controls to support Navy R&D programs and permit ASN(RES) to monitor and direct the R&D effort.

The magnitude of the effort poses special problems and, along with the diversity and complexity of the projects, it poses major management problems.

There is a need to have general oversight in order to make a basic allocation of resources. Yet, it is essential to have detailed knowledge of important projects, especially those that experience problems. In addition, a method is needed to identify small programs--not normally visible, often at very low dollar thresholds--that are particularly promising in view of the overall Navy mission and current technical, operational, or financial problems that detract from carrying out basic mission assignments.

A number of methods could be used to provide oversight and detailed control of Navy R&D. Primarily, they are through the use of (1) budgeting functions (authorization, appropriation, and obligational authority), (2) formal program reviews designed to surface issues and address problems, and (3) the services of a technically competent staff of sufficient size.

ATTITUDES TOWARD CIRCULAR A-109

Our interviews with Navy Department personnel and our review of directives, instructions, and manuals, indicate that PPBS is functioning as intended in the Department of Defense. PPBS appears to be fulfilling its purpose. Moreover, it appears that compliance with new directives designed to implement Circular A-109 will not interfere with the PPBS process. In fact, there are reasons to believe that incorporation of the A-109 concepts in PPBS will strengthen the overall system.

It was noted, however, that a number of individuals involved in plans and programs did not clearly understand how PPBS works, and many of those interviewed did not perceive the potential impact of Circular A-109 on the DOD planning process.

Knowledge of A-109 concepts and DOD implementing directives varied--from the extreme of being unaware that they existed--to having detailed understanding of the intent and specific requirements imposed by A-109. Among the responses to questions about A-109, such remarks as the following are typical of the first extreme:

- "Never heard of it--what does it have to do with us?"
- "Aware of it but it doesn't affect us--we will continue to work on our programs--A-109 will come and go like lots of other reforms and buzz words--our programs are too important to be bothered by the Circular."

- "Completely wrong approach in A-109. The trouble is that we rely on industry too much. We are the ones who are the experts and we should be telling them--not soliciting them for a bunch of ideas that are worthless."

- "The intent of A-109 is fine but you will never get Congress to go along with it because Congress is 'present oriented' and A-109 is 'future oriented'."

- "No connection with Navy plans. The CNO is the only one who determines requirements (needs). We already have all the documentation (NWP-1) needed. Heard of A-109 but really haven't read it."

Although the implications of A-109 were well known to some personnel, there appeared to be no uniform Navy position among them; we concluded that orientation and acceptance of requirements and potential benefit of implementation of A-109 were subject to wide variations of opinions and to diverse individual interpretation.

Inadequate communication among various groups involved in the acquisition process was brought to our attention on more than one occasion. This deficiency is most apparent between the strategic long-range planners and the technical people working in R&D. PPBS requires interchange between planners and programmers, but what are really more crucial interactions--those that occur prior to the planning phase--are not being adequately pursued.

We have concluded that a major improvement in planning concepts would result if technically oriented people in the Secretariat discussed plans and programs with strategic planners prior to the annual PPBS cycle. We believe that the chances of having successful programs would be increased if OPNAV and NAVMAT personnel involved in planning and programming and their counterparts in OSD would place greater emphasis on discussing subjects of mutual interest.

PROGRAM DOCUMENTATION

Program Initiation

Documentation required to initiate a Navy program is prescribed in a number of Instructions. OPNAVINST 5000.42A amplifies policy set forth in SECNAVINST 5000.1 and establishes procedures for identifying operational requirements. However, current OPNAV instruction does not specifically encourage the submission of need or requirement statements. OPNAVINST 5000.42A states that any fleet activity or Navy command may submit an Operational Requirement (OR) via the chain of command and that all ORs shall be concurred in by cognizant sponsors and Director, Navy Program Planning.

Figure 10 shows that a Navy need/concept may be documented initially as an Advanced Systems Concept (ASC), an Operational Requirement (OR), or a Mission Element Need Statement (MENS). Programs requiring SECDEF approval are prepared in the format and content prescribed for MENS. Programs remaining under Navy purview require documentation prescribed by SECNAV or CNO. CNM is responsible for seeing that a Development Proposal (DP) is written for concepts that have been screened and approved at appropriate levels.

We found that while three documents are used, one may suffice. If the spirit and intent of A-109 are to be fully accepted, each program must somehow be related to an identified need. With respect to the ASC, which essentially is a development proposal for the application of new technology, DODD 5000.1 states that "technical opportunity" is a basis for substantiating a MENS. If a major program is anticipated, the OR, which normally has been used to initiate a program, may be modified into a MENS and forwarded to SECDEF.

However, if the basic concept of A-109 is applied, the documentation would start with a MENS rather than an OR as it has been used in the past. If the purpose of using an OR is simply to distinguish between SECDEF-decision and Navy-decision programs, past practices and thinking become a factor by retaining the title OR. Considering the genesis of A-109, and our interpretation of its intent, a change in OR title would be beneficial, even if the MENS format is used.

We were informed that in December 1976 some 900 Navy R&D programs were active; of them, about 800 were considered to be minor. According to staff personnel involved, many programs have neither an OR, MENS, or ASC to document them. Yet, a recent SECNAV memorandum requires that all such programs be documented.

Some instances were noted of informal memoranda being used to establish requirements or procedures that impact on various aspects of a system program. Such requirements or procedures--when not incorporated into the directives/instruction system--are not visible in the formally structured management, review, and decision process. This usually results in procedural variances, added workload, and program or schedule changes that cannot always be recognized and accommodated by others who have responsibilities in the process and may work to the detriment of the program. We conclude that incorporation of such informal memoranda into the formal directives system at the earliest practicable date would contribute to smooth functioning of the review/decision process.

The Decision Coordinating Paper (DCP) process is outlined in detail in OPNAVINST 5000.46, in several DOD directives, and in the Navy Programming Manual. DCPs and NDCPs constitute the basic documentation for DSARC and DNSARC, respectively. DCPs

and NDCPs are vital in providing program information, maintaining program history, selling programs, and as a means of promulgating decisions. Skillful and careful composition of DCPs and NDCPs can be of significant benefit to any program. Conversely, poorly drafted DCPs or NDCPs may induce problems in even the best program.

With the preparation of an NDCP or a draft DCP based on an outline prepared jointly by OSD staff, OJCS, and the Navy program manager and sponsor, the OR/MENS is subsumed (see Fig. 10). After that point, SECNAVINST 5000.2 adequately describes the further flow of the DCP and need not be repeated here.

We found that the large number of instructions relating to program documentation makes the preparation of such documents very difficult. Writing of the DCP, for example, requires reference to many directives and instructions. Moreover, the individual responsible for drafting a DCP is often doing it for the first time. The results of this kind of situation are predictable--many rewrites and long delays in developing an acceptable draft DCP.

We have not found any instruction that clearly assigns specific responsibilities to a particular OP, but we have been informed that OP 096 very often ends up doing the rewriting required. OP 098s responsibilities for actually preparing a DCP are not distinctly stated. Even though individuals in OP 98 may perform certain functions in the preparation of DCPs, it is not as the result of assignment to that particular duty by an applicable instruction.

A document as important as a DCP should, in our opinion, have a focal point in OPNAV not just for review, distribution, or coordination but also for actual preparation of the DCP. Because as the program manager or sponsor is most likely drafting a DCP for the first time, added efficiency and improved document quality should be gained by assigning an office to work directly with program offices in the preparation of a DCP.

Program Changes

PPBS involves a comprehensive review each year to take account of the latest changes in military technology and in the international situation. This annual review of the entire defense budget provides opportunities for examining not only the overall effort but individual programs as well. However, more detailed procedures for inspection of programs are available and formal procedures are used to start, stop, or change programs. For example, the Decision Coordinating Paper (DCP) process is designed to accommodate changes in existing programs. Further, the use of ORs or MENS, together with the step-by-step development of DCPs, permits program starts regardless of the budget or planning cycle.

Formal Program Change Request (PCR) procedures are outlined in the Navy Programming Manual, Appendix E. A PCR is an out-of-cycle change request made to SECDEF. The manual describes the preparation and processing of a Navy PCR and the staffing procedures for evaluating other Service PCRs when requested to OSD. JCS Policy Memo 136 provides for a JCS review of each Service and DOD Agency PCR. Formal JCS review (flimsey/buff/green process) is warranted when a PCR departs from stated JCS policy, when the change request would have a significant impact on force levels or capabilities, or when it involves the initiation of a program not previously discussed by JCS.

RECOMMENDATIONS

With regard to program initiation and documentation, it is recommended that steps be taken to:

- Promulgate a SECNAV memorandum that highlights the Navy's position relative to implementation of Circular A-109 and related DOD and SECNAV directives.

- Assign an appropriately qualified team to brief selected personnel on the concepts, requirements, benefits, and procedures involved in implementation of A-109.

- Establish without delay an ASN(RES) symposium, in conjunction with DCNO for Plans, Policy, and Operations (OP 06), to involve their offices and other interested parties (e.g., OP-098 and OP-090) in a series of briefings and discussions on strategic planning and the potential of R&D activities to support or enhance those plans.

- Develop closer working relationships among OPNAV, NAVMAT, OPA, and ASN(RES) staffs and with their counterparts in OSD.

- Consolidate, where practicable, the guidelines and instructions for preparing Decision Coordinating Papers (DCPs) and other key documents pertaining to system acquisitions.

- Assign to an appropriate office in OPNAV the primary duty of assisting program offices in the preparation of DCPs, Operational Requirements (ORs), Mission Element Needs Statements (MENS), Navy Decision Coordinating Papers (NDCPs), and other documents that have a crucial impact on system acquisitions.

- Adopt the MENS as the single format for initiating a program. If this is not considered desirable, a change in title for the "Operational Requirement (OR)" is strongly recommended as a means of emphasizing to involved personnel that a change has been made and that new procedures and documentation apply. The title "General Operational Requirements (GOR)" or "Navy Operational Requirement (NOR)" is suggested.

- Incorporate into the directives/instruction system, at the earliest practicable date, all informal or formal memorandums that establish requirements or alter system acquisition procedures.

DEVELOPMENT OF SECDEF DEFENSE GUIDANCE (DG)

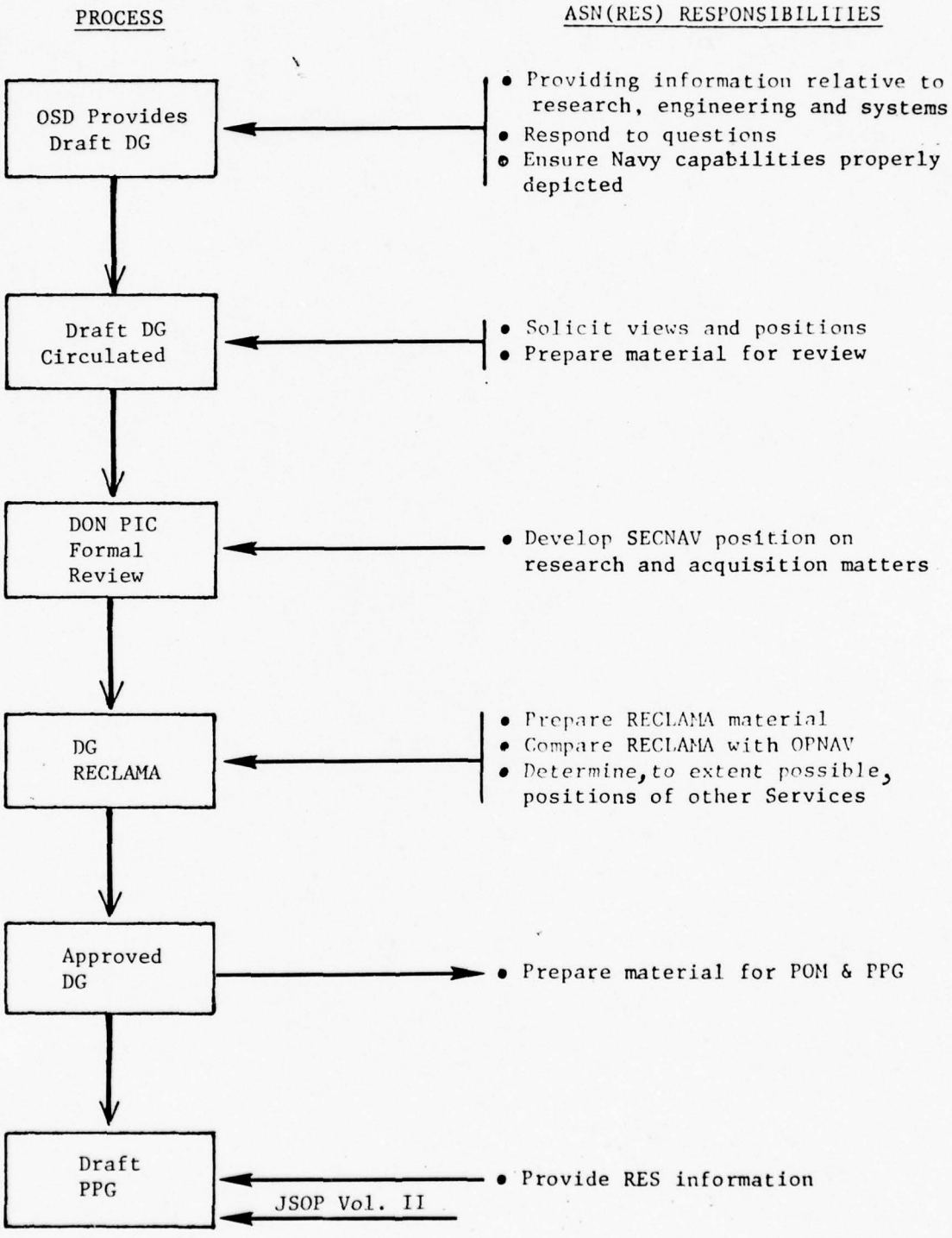


Figure 8

PPBS PROGRAMMING PHASE

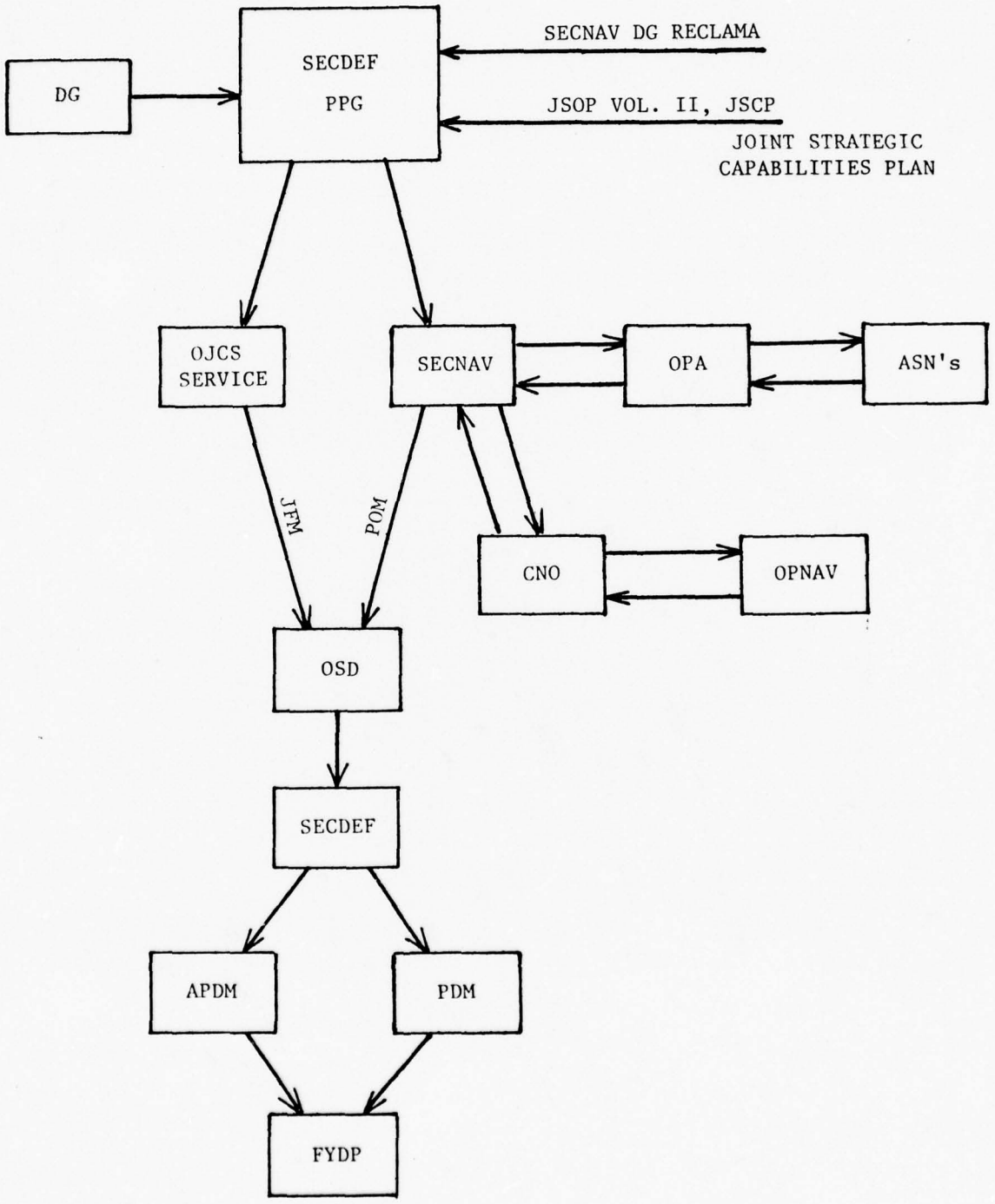
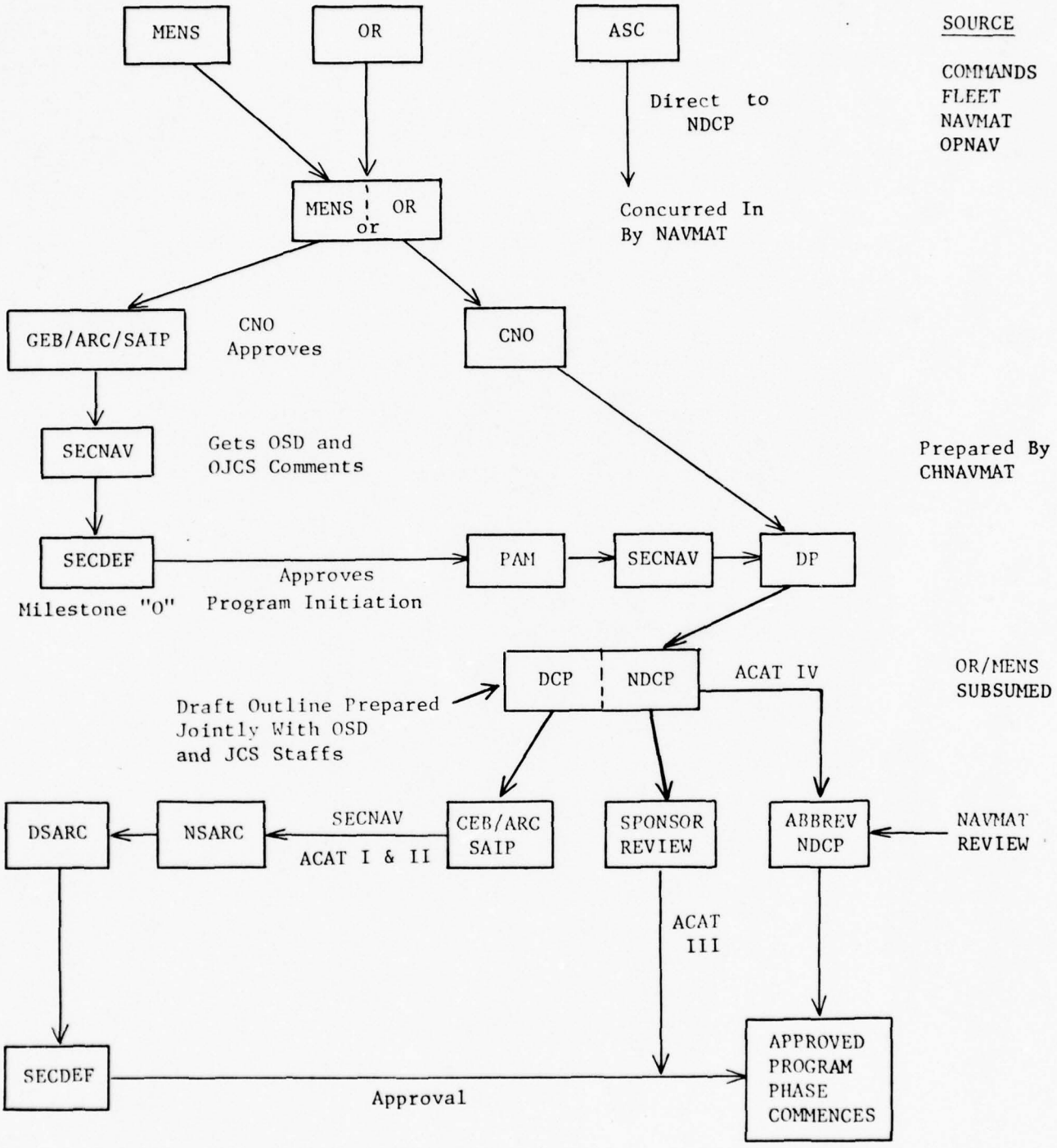


Figure 9

REPRESENTATIVE DOCUMENT FLOW
TO INITIATE A PROGRAM (POSTULATED)*



* SECNAV Instruction implementing DODD 5000.2 not yet issued, therefore, this chart depicts a representative process.

Figure 10

GUIDE CONCEPT

The outline for a Department of the Navy Major Systems Acquisition Management Guide (presented as Appendix A1) is intended to identify general and specific considerations which should serve as a basis for technical and business oversight of the acquisition process. It is intended for use by personnel at all levels of acquisition management and is designed to provide an overview of the acquisition process from the identification of a need through system deployment and, organizationally, from Congress through OMB, OSD, OSN, OPNAV, and NAVMAT to the Program Office. It is recommended for use as a guide which depicts a path which a program may follow and not the prescribed path that must be followed.

Recent changes brought about in system acquisition policy by the publication of OMB Circular A-109 and DODDs 5000.1, 5000.2, 5000.3, and 5000.30 have been incorporated into the outline.

To provide additional utility to Program Office personnel, the outline provides for detailed descriptions of functions performed and interfaces required of the Program Office. For those working in specific functional areas, each chapter is to include a listing of references of publications pertinent to the specific discipline covered by that chapter.

The outline provides a summary description of the content of each chapter and lists by sections and subsubsections the elements to be covered in detail in each chapter.

Pertinent background and source materials referred to in compiling this outline are listed in the bibliography. As principal Navy acquisition directives and instructions are currently undergoing revision, the references listed in the outline should be considered as examples.

ALTERNATIVE APPROACH FOR A GUIDE

As an alternative approach to the single document guide that has been developed, consideration has been given to structuring a two-volume guide.

Abbreviated outlines for such a two-volume guide are presented as Appendix A1. The first volume is envisioned as a guide oriented toward management responsibilities and functions at SECNAV and

OPNAV levels. It deals with concepts and roles; organization and organizational relationships within and supra-Navy; staff responsibilities, their legal foundation, and procedures employed; etc., in general terms. But in more specific terms, the matters of the business aspects of RDT&E and system acquisition, PPBS, and dealing with Congress, OSD, and other agencies, would be addressed. The responsibilities and functions placed at CHNAVMAT level and below would be described in the first volume only in enough detail to provide a basic understanding of the procedures and interfaces involved.

The second volume would be oriented toward the duties performed at NAVMAT, SYSCOM, and Program Office levels and would provide details on the acquisition process. Sufficient information concerning responsibilities, functions, and procedures would be included to provide a basis for basic understanding of the functions, requirements, and processes involved in the management of acquisition programs at levels above CHNAVMAT.

With this approach, if individuals at any level wished to delve deeper into the processes of another level, the other volume could be made accessible and be used as a reference document.

REVIEW AND ANALYSIS OF DIRECTIVES AND INSTRUCTIONS GOVERNING MAJOR SYSTEM ACQUISITIONS

The review and analysis of Directives and Instructions commenced with the identification of Department of Defense and Department of Navy Publications related to major system acquisitions. To insure that all relevant documents were identified and that we were working with current revisions, the most recently issued indexes of DOD and Navy publications were examined. Initially, it was necessary to identify a large number of publications by title and to complete preliminary reviews before their pertinence to major system acquisitions could be determined. Many that appeared by title to be pertinent were, upon review, found to have little relevance. For DOD publications, we found that there are category listings for both "Acquisition" and "Systems." The Navy index does not include such category listings. This possibly is one indicator that, in the past, the management of major system acquisitions has not received appropriate attention and emphasis in the Directive/ Instructions system.

The first objective of the review was to identify and anlyze recent changes in the acquisition process brought about by the issuance or revisions of OMB and DOD policy directives. After a short period of review, it became apparent that a secondary factor was emerging that was also of significance to the success of major system acquisitions for the Navy. This is the matter of the overall status and condition of Navy Directives and Instructions pertaining to major systems acquisitions.

While we recognized that many Navy Directives/Instructions implementing DOD Directives were undergoing revision, it was apparent that update of the key directives alone would not result in an adequate directives system for major system acquisitions. Therefore, we continued the review, but with an added objective, and examined publications not only from the standpoint of the acquisition process, but also as to the adequacy of Navy Directives and Instructions concerning establishing authorities and responsibilities.

At the outset, we had anticipated that revisions to Navy implementing Instructions would be issued during the course of the review and that those documents could be examined with results being recorded in the review analyses. This did not occur; however we believe that the findings would not have been substantially altered had the revisions been available. Although this review was conducted with only two primary objectives in mind, the products of it have been useful in structuring and documenting other portions of this report.

OBJECTIVES AND REVIEW METHODOLOGY

A comprehensive review and analysis of current OMB, OSD, and Navy Circulars, Directives, and Instructions related to the acquisition of major systems was made. This review was conducted for the purposes of:

Phase I

- Determining the impact of January 1977 revisions to DODDs 5000.1 and 5000.2 on the Navy systems acquisition process.

- Determining the impact of the January 1977 revisions to DODDs 5000.1 and 5000.2 on organizations and functions within the Navy.

- Identification of organization or individuals (by title) that are assigned specific responsibilities in the acquisition process.

- Identification of functions and responsibilities that require affirmative actions (e.g., reviews; approvals; participation on boards, councils, or committees) as distinguished from management oversight.

Phase II

- Determining the adequacy of Navy implementation of DOD Directives and Instructions including identification of any deficiencies, conflicts, or need for clarification, modification, or condensation of Navy Instructions.

- Identifying Navy Instructions that need revision to conform to the revised DOD guidelines on system acquisitions as well as those with apparent inadequacies not necessarily caused by revisions in DOD guidelines.

- Developing overall findings, conclusions, and recommendations based on the reviews and analyses.

To conduct this review it was necessary to: (1) Identify and obtain pertinent DOD Directives that directly control or impact on the system acquisition process in the Navy. (2) Identify and obtain Navy Instructions or other publications which directly relate to the major system acquisition process. (3) Review and analyze pertinent information from the identified documents, plus other materials, such as OMB Circulars A-11 and A-109, GAO reports, studies, manuals, etc., as could be made available. Discrete functions, actions, policies, procedures, etc. extracted from these reviews were first compiled in matrix format for work purposes and are included in this report but in a revised form.

IMPACT OF REVISIONS TO DODD 5000.1 and 5000.2

With regard to the direct impact of OMB Circulars and revised DODDs, the changes are significant in many respects. Not only do they impact on management policies and procedures but also in the placing of emphasis.

Impact on the Acquisition Process

There is a direct and immediate impact at all levels within the Navy, primarily with regard to that portion of the acquisition process preceding Milestone II. The new milestone decision point in the process, for systems designated as major by SECDEF, imposes a new and additional workload commencing with identification of a need, the review and decision process through CNO, the DNSARC, SECNAV, DSARC, and ultimately to SECDEF, with appropriate participation by JCS. This decisionmaking process implicitly invokes documentation, consultation, and formal meetings and recommendations by DNSARC and DSARC in which key Navy personnel play a major role.

Impact on Organizations

The new requirements do not, per se, require any basic changes in organization or in responsibilities already assigned. However, they require that the authority, responsibility, and accountability for management be more explicitly defined and assigned. This raises fundamental questions on the roles that should be assigned within the Navy Secretariat, and the extent to which the Secretariat will be held accountable for (i) management shortcomings and (ii) adherence by lower level management to prescribed policies and procedures. The principal issue involves the means by which the Secretariat will carry out assigned responsibilities without imposing new and burdensome requirements for data or reporting and without establishing any new management "layering."

Principal Features of the Directives

Principal features of the Directives that impact directly on the acquisition of Navy systems are that:

- Needs and program objectives must be expressed in mission terms, not equipment terms.

- System acquisition programs must be related to mission elements in communicating with Congress.

- A new decision point, Milestone 0 is added and submission and approval of a Mission Element Need Statement (MENS) is required for program initiation.

- Competitive exploration of alternative design concepts is emphasized.

- A Program Manager must be appointed immediately following Milestone 0 and an acquisition strategy planned.

- A Defense Acquisition Executive is designated "to integrate and unify the management process for the agencies major system acquisitions."

- Delineation of lines of authority, responsibility, and accountability are emphasized.

- Details of program documentation are stressed and added emphasis is given to production planning and readiness reviews.

- Continuing mission area analyses and reaffirmation of mission need is required at each decision point.

FINDINGS

Authority and Responsibilities of ASNs

The basic authority and responsibility of the ANSs are found in two key SECNAV instructions.

The first, SECNAVIST 5400.13, covers "Authority and Responsibility for the Administration of the Navy." It describes the composition of the Navy and in particular, the authority of CNO and CMC. In more general terms, it briefly describes the broad areas of responsibility of the Civilian Executive Assistants, which includes the Under Secretary and Assistant Secretaries, such as "transportation, material, facilities, research and development and financial management." But it clearly implies that an assignment of more detailed responsibilities will be made. It does not indicate the scope of those responsibilities nor indicate the authority of the ASNs vis a vis CNO or CMC, for example.

The second, SECNAVINST 5430.7b, covers the "Assignment of Responsibilities to and among the Civilian Executive Assistants to the Secretary of the Navy" and deals more explicitly with the areas assigned to each. For example, this Instruction provides that ASN(R&D) is, among other things, "responsible for all matters related to research, development, engineering, test and evaluation efforts within the Department of the Navy,. . ." It also provides with respect to the ASNs that "each is authorized and directed to act for the Secretary of the Navy within his assigned area of responsibility." This responsibility is further defined as including "a. The review and evaluation of appropriate actions regarding program development and execution," and "b. The formulation, development and promulgation of management policies, systems, procedures, standards, or decisions which are necessary for effective administration."

Principal Navy Instructions Related to the System Acquisition Process

The roles of the Navy Secretariat, CNO, and CMC, as more directly related to the system acquisition process, are contained primarily in the following Navy Instructions:

SECNAVINST 4000.29A, Development of Integrated Logistics Support for Systems/Equipment.

SECNAVINST 5000.1, System Acquisition in the Department of the Navy.

SECNAVINST 5000.16B, Policy, Roles, and Responsibilities Within the Department of the Navy for Implementation of the DOD Planning, Programming and Budgeting System (PPBS).

SECNAVINST 5200.30, Management of Decision Coordinating Papers (DCPs) and Program Memorandum (PMs) within the Department of the Navy.

SECNAVINST 5420.172B, Establishment of the Department of the Navy Systems Acquisition Review Council (DNSARC) (see Enclosure 1, thereto).

SECNAVINST 5430.7K, Assignment of responsibilities to and among the Civilian Executive Assistants to the Secretary of the Navy.

SECNAVINST 5430.67A, Assignment of Responsibilities for Research, Development, Test and Evaluation.

OPNAVINST 3960.10, Test and Evaluation.

OPNAVINST 5000.42A, Weapon Systems Selection and Planning.

OPNAVINST 5000.46, Decision Coordinating Papers (DCPs), Program Memoranda (PMs) and Navy Decision Coordinating Papers (NDCPs).

Analysis of Cited Instructions

None of the Instructions cited above contains the new policies and procedures prescribed in the 18 January 1977 amendments of DODDs 5000.1 and 5000.2, with particular regard to the new Milestone 0 decision point, the MENS, new definitions (major systems), and to special and iterative considerations and emphasis of specified factors throughout the acquisition process.

Many of the Instructions cited above do not make clear the lines of authority or finality of decisionmaking (other than for required DNSARC controlled actions). For example, while

ASN(R&D) has broad authority and responsibility for all R&D matters (SECNAVINST 5430.7K), it is not clear how this authority and responsibility will be exercised and carried out, i.e., decisionmaking or oversight, and the degree to which the ASNs will be directly involved in managing programs. The cited Instruction states, among other things, that ASN(R&D) has responsibility for "review and evaluation of appropriate actions" regarding program development and execution. This raises a question as to how determinations are to be made on the need for such reviews (e.g., at the ASN's discretion?) and the effect of such a review and evaluation (e.g., requiring changes in plans and decisions made by program managers?). If it is intended that such reviews and evaluations can be called for at any time and may result in approval, modification, or disapproval of program actions outside DNSARC, it would appear appropriate to specifically provide for such review within the Instruction.

With respect to PPBS, for example, SECNAVINST 5000.16B merely provides in part, that the ASNs will "have an active role in support of the PPBS," within their established responsibilities and that ASN(R&D), for example, (i) represents SECNAV "in matters related to Development Concept Papers" and (ii) "staffs and presents to SECNAV for decision, the R&D section of the Program Objectives Memorandum."

Other Instructions in the Navy directives system also use such terms as appraise, maintain cognizance, process, staffs, review, screen, support, coordinate, or concur in, without indicating in some cases the specific action to be taken, the individual or office required to take the action (e.g., who prepares), the effect of the action (such as a nonconcurrence or negative review), the next step in the process (e.g., prepared and forwarded to whom), or the responsibility, authority, and accountability that accompanies the action.

While many functions and responsibilities are assigned in the form of specific duties or actions, it is frequently not clear whether the duties imposed or actions required are advisory in nature, and, if so, the office of individual to receive the advice, or whether they constitute decision that are binding on Program Managers or others involved in the system acquisition process. Since as many as five staff levels may be involved in some form or aspect of program review that may impact on a program, it is important that Directives and Instructions be worded in such a manner as to provide explicit clarification of management relationships, authority, and accountability at all levels in the system acquisition process.

No responsibilities are specifically assigned to the Secretariat in SECNAVINST 4000.29A, which implements DODD 4100.35, concerning the "Development of Integrated Logistics Support for Systems/Equipments." Instead, this Instruction provides merely that responsibility "for adequate consideration of ILS matters (from design concept throughout the life cycle) is assigned to those charged with the logistic support function."

Research to date has failed to disclose implementation in either SECNAV or OPNAV Instructions of DOD Directive 5000.28, Design to Cost.

CONCLUSIONS

As a result of the study, compilation of documents, and their review and analysis, the following conclusions have been reached and, in turn, are the basis for the following recommendations.

Necessary Revisions to SECNAV/OPNAV Instructions

- Significant revisions of numerous SECNAV Instructions and management Instructions or related publications are necessary as a result of the 17 January 1977 revisions of DODDs 5000.1 and 5000.2, particularly with regard to actions required prior to Milestone II.

- Revisions to Navy Instructions and related publications will likely be required as a result of revisions now being made to DOD Directives and Instructions referenced in Enclosure to DODD 5000.1. These directives are being revised to bring them into harmony and conformance with DODD 5000.1.

- Revisions to SECNAV Instructions will be required as a result of any realignment of functions and responsibilities already accomplished or in process within the Navy Secretariat.

Necessary Clarification of SECNAV/OPNAV Instructions

- The final decisionmaking authority within the Navy Secretariat and for CNO on systems acquisition should be made clear.

- The lines of authority for reviews and decisionmaking in the acquisition process, extending from the Program Manager to SECDEF (for designated major systems) or lower (for other systems) should be made clear.

- Affirmative actions required in the system acquisition process, as distinguished from oversight or monitorships, should be identified for each ASN and supporting staff office. The use of more precise and explicit language is indicated.

• The ways and means to be employed by the Navy Secretariat in carrying out assigned responsibilities for system acquisitions is not adequately documented except with respect to specified actions (e.g., DNSARC participation).

• No office was identified at any level as performing the function of centralized control of systems acquisition-related Directives and Instructions (includes coordination and integration of overall acquisition policies and procedures and consolidation of directives as appropriate). From an organizational standpoint, the Director of Acquisition Policy and Program Evaluation, DCNM (Acquisition), seems ideally placed for such designation.

Recommendations

It is recommended that the Department of Navy:

• Designate a single office or individual (e.g., Acquisition Executive) at Secretarial level to be responsible for coordination, issuance, and implementation of policy guidelines and for resolving all significant issues arising in connection with system acquisitions. Focal points should also be designated at OPNAV and NAVMAT levels to ensure the expeditious coordination of system acquisition matters.

• Establish a plan, including a timetable for completion, for systematic review, analysis, and early revision of SECNAV and lower level Instructions, manuals, and guidelines bearing on the systems acquisition process:

(i) To convey and assure conformity with established DOD policies and procedures.

(ii) To more clearly delineate functions, authority, responsibility, and accountability for system acquisitions.

(iii) To clarify the meaning, intent, and effect of oversight, review, and monitoring actions.

(iv) To eliminate unnecessary or repetitious implementing instructions at each management tier from the SECNAV level to the Navy System Commands.

• Assign responsibilities for executing and ensuring completion of the above plans.

• Develop the procedures and guidelines, including interface mechanisms, to be followed by each Assistant Secretary of the Navy in carrying out assigned system acquisition responsibilities.

• Assign responsibility to a single office in the Department of the Navy to perform the function of centralized control of system acquisition-related Directives and Instructions and to ensure the appropriate integration of disciplines, correlation of subject matter, and timely coordination of overall acquisition policies and procedures.

The efforts recommended above will be affected by impending organizational changes, realignment of functions, and pending revisions to DOD Directives and Instructions that impact on the system acquisition process. Accordingly, in the development of the plans suggested, close coordination must be maintained with OSD to ascertain the status and likely scope of any proposed revisions.

Summaries and listings of primary documents reviewed are presented in this report as Appendices B through E.

During the course of interviews and discussions, a number of subjects were noted which had been expressed as matters of concern by those interviewed or as impressions gained from the candid remarks of individuals. While no factual data is offered to substantiate these impressions, from the standpoint of consensus, they do appear to have sufficient credibility to warrant reporting and discussion. Therefore, such impressions and findings are presented in this section of the report in a narrative form with comments and suggested courses of action.

UNDERSTANDING OF THE ACQUISITION PROCESS

During interviews and discussions with personnel at all levels of acquisition management, we often found a lack of comprehensive understanding of the total acquisition process. This should not, in our opinion, be attributed to the status of Directives and Instructions but more appropriately be ascribed to lack of experience or indoctrination in acquisition management. Lower echelon people often do not understand the interactions of the many factors that must be considered in the PPBS and review/decision process. Similarly, top executives, legislators, and top staff people do not always understand the myriad of detailed tasks and directions that impact on programs and the Program Office. The level of understanding concerning OMB Circular A-109 concepts needs considerable improvement.

At Secretarial and Office of the Chief of Naval Operations levels, it appears that an increase in staff effectiveness could be gained through better understanding of organizational responsibilities, authorities, and procedural practices. Certainly, the recent realignment of functions in OSD and OSN and significant changes in DOD acquisition directives have made understanding more difficult. The problem though appears to be one that will not be entirely alleviated by clarification and delineation of responsibilities.

We believe that understanding of the legal foundation, i.e., Public Law, for the organizational structure, assignment of responsibilities, and delegation of authority within OSN and OCNO is of special importance to all those involved in staff work directly related to R&D and major system acquisitions. Further, understanding of the fundamental concepts involved in the staff structure, relationships between staffs at different levels, and external relationships and detailed knowledge of procedural guidelines employed are basic to effective staff work.

We believe that understanding is fundamental to successful RDT&E and major system acquisition management--understanding not only of the management methodology being implemented but also of its intent and purpose. Understanding, then, must somehow pervade every echelon of Navy management, of OMB, and of the cognizant congressional committees.

How can a higher degree of understanding at differing organizational levels and branches of Government be achieved?

- Use of Briefing Team(s) and/or individuals (all highly qualified) to present pertinent information at each appropriate echelon of the Navy. Presentations to be tailored to the information needs of specific audiences.

- Visits by individuals from offices of ASN, i.e., Dep. Asst. Sec's and Staff personnel, to CNM staffs, Program Offices, etc. Such visits would provide for exchanges of information (especially feedback), promote greater understanding from both directions, and give increased emphasis to matters of acquisition management.

- Through Directives, Instructions, Manuals, Pamphlets, etc.

Much effort has already been expended in our review and analysis of directives to identify the particular publications that have been impacted by OMB Circular A-109; the recently revised or published DODDs 5000.1, 5000.2, 5000.3, and 5000.30; and implementing SECNAV Instructions. However, it seems necessary now to assign specific responsibility for scheduling and monitoring actions to revise, cancel, consolidate, or publish new directives as appropriate. These assignments should be made to individuals in each major functional area, i.e., Procurement, Engineering, PPBS, etc.

- Another product of this project, an Acquisition Management Guide Outline, should also assist in achieving better understanding of the acquisition process. A guide, such as we have outlined, should, when completed and disseminated, serve as a useful reference at all levels of acquisition management. The outline which we propose provides a framework for describing the general considerations and detailed procedures involved in initiating and managing a system acquisition.

- The Defense Systems Management College (DSMC) offers courses of study ranging from a one-week orientation in Systems Acquisition to a 20-week professional course in Program Management. In addition, schools of the Military Departments have advanced courses applicable to the management of major system acquisitions. For personnel who have not had extensive experience in systems acquisition management to be assigned to positions which have an influence

on any aspect of a system acquisition without having attended a school appropriate to the assignment certainly degrades the entire process. Therefore, we believe that attendance in an appropriate course should be mandatory for inexperienced personnel before assignment in any area involving system acquisition management.

• With regard to the Congress, there is the ever present fact that the turnover in Members makes more difficult the achievement of a reasonable understanding of the acquisition process by all Members. However, there is a somewhat stable corps of staff personnel and committee chairmen with whom to work. For even a coherent view to be effectively received, it is essential that these staffs, and through them the Chairman, have a substantial understanding of the concepts and processes involved. For both OMB and Congress, we believe personal contacts, development of rapport and dialogue, the advance checking out of proposals, etc., with key staff members, should eventually provide a much greater understanding and acceptance of Navy programs during OMB reviews and by the full committees of Congress. Very probably, a reduction in the numbers of persons involved in testifying or providing backup could be achieved as a result of greater understanding on the part of committee staffs and of increased confidence in ASN(RES) and the Navy leadership as a whole.

MANAGEMENT DISCIPLINE

Assuming that increased understanding and appreciation of the acquisition process is to be achieved, the matter of management discipline in execution of the process comes into focus. For the entire process, and eventually its products, to realize maximum benefits, "understanding" must be followed by diligent prosecution of chosen management techniques.

How can this be done?

The ASN(RES) and Deputies take the lead and set the pace--not only through established authority but also by example. This can be done effectively in many ways, but especially so in the program documentation (MENS, DCPs, etc.) preparation, coordination, and review process. First, the quality of the content of each paper must receive the utmost emphasis. If a well founded, professional paper is demanded throughout the system, eventually the number of rewrites, coordinations, and accompanying delays will diminish and the professional capabilities of originators can be expected to improve. Also, it is possible that the preparation, coordination, and reviews of DCPs (including the use of "comments" from OSD staffs and OJCS and resolution of issues) may be handled so effectively by DN at all phases through the DNSARC that a formal DSARC may be precluded.

Discipline in the processing of program documentation is also a matter of concern. The use of advance copies of "For Comment" documents, distribution of copies to all at the same time rather than "in-turn," and other administrative procedures obviously may make the procedure easier. But it is in the exercise of strict discipline in the scheduling of document flow and forced adherence to schedules that pays dividends in reducing the processing time required. In this respect, the simple matter of "hand-carry" rather than reliance on an "urgent" stamp is a procedure that is too often overlooked. The use of "Time/Date In" and "Time/Date Out" routing sheets has in many instances improved the control and coordination of program documentation.

ASN(RES) ROLE IN ACQUISITION MANAGEMENT

Based on comments of those interviewed and limited observation, the current manning of ASN(RES) and the normal workload of program reviews, meetings, staffing actions, etc., appear to be such that time has not been available to properly structure the policies and criteria needed to assure appropriate management of all system programs.

A number of interviewees expressed the view that the most important contribution of ASN(RES) to acquisition management should be through placing the highest priority on the early establishment of policies, procedures, and criteria designed to assure that all programs receive adequate management attention and that reviews or decisions are made at a level commensurate with program value, importance, etc. Through the identification of all acquisition programs and their classification or grouping as to level of decision, the establishment of what decisions are to be made, the documentation required for each, the criteria for review at each level, clarification regarding staff involvement, the use of "management by exception" techniques, etc., the overall monitoring responsibilities of ASN(RES), and the specific functions performed at other levels, can be looked at from a more incisive viewpoint.

To divert time from on-going programs and activities is recognized as being difficult. However, we suggest that time devoted now to developing policies, procedures and criteria directed toward more effective management of system acquisitions at each appropriate level will result in significant long term improvement. Even for an office staffed with such highly experienced and skilled personnel, it is unrealistic to expect that every important program can be managed or monitored in depth at the Secretariat level. An attempt to ensure that every program receives proper management attention at the appropriate level, however, is a must.

DN SYSTEM ACQUISITION REVIEW CHECKLIST

A comprehensive System Review Checklist was planned as a part of this section for use as a ready reference management tool by those involved in any aspect of DNSARC documentation preparation or review. The intent was to include provisions of current and pending DOD Directives and pertinent SECNAV/ OPNAV implementing Instructions.

However, as noted on page 10 the necessary publications for such a checklist have not been made available. Although the process described by DODD 5000.2 may serve as a basic checklist, we believe that a more comprehensive checklist is desirable and necessary for the most effective DNSARC reviews.

When DOD revisions to pertinent Directives and DN implementing Instructions are made available we are prepared to compile a comprehensive DNSARC checklist which we believe will be helpful to those who support or participate in DNSARC reviews.

Appendix A1

OUTLINE FOR ONE-VOLUME MANAGEMENT GUIDE

MAJOR SYSTEMS ACQUISITION MANAGEMENT GUIDE
(OUTLINE)

Chapter

1. General
2. Authority and responsibilities in major system acquisitions
3. Planning for major system acquisitions
4. Programming
5. Budgeting
6. The preconceptual effort
7. The conceptual effort
8. Full-scale development
9. Production/deployment
10. Program control
11. Procurement
12. Engineering management
13. Configuration management
14. Test and evaluation
15. Manufacturing and production management
16. Integrated logistics support
17. Facilities support
18. Training
19. Interface management
20. Data management
21. The program office
22 Deployment management

Attachments
Figures
Glossary

MAJOR SYSTEMS ACQUISITION MANAGEMENT GUIDE
(OUTLINE)

1. GENERAL

This chapter is to introduce the subject and explain the "why" of system program management, describe the fundamental management techniques employed, and explain the general concept and structure of the guide.

Specific elements are: Introduction. Purpose and scope. Fundamental acquisition model (Fig. 1-1). Management techniques. Objectives. Applicability.

2. AUTHORITY AND RESPONSIBILITIES IN MAJOR SYSTEM ACQUISITIONS

Discuss in a summary fashion the organizational objectives, roles and fundamental responsibilities of officials and organizations in system acquisition matters. This includes the legal foundation for authority and responsibilities along with financial, business, and technical aspects. Delineation of lines of authority and responsibility must be emphasized. Specific elements are:

Department of Defense. Functions. Secretary of Defense. Director of Defense Research and Engineering. Defense Acquisition Executive. Deputy for Test and Evaluation. Office of Joint Chiefs of Staff. Other Staff. External relationships (Congress, OMB, etc.). Procedural interfaces.

Department of the Navy. Organizational objective and roles. Secretary of the Navy. Undersecretary and Assistant Secretaries of the Navy. Commandant, Marine Corps. Chief of Naval Operations. Office of Chief of Naval Operations. Chief of Naval Materiel. Office of Program Appraisal. Office of Navy Research. Director of Navy Laboratories. Operational Test and Evaluation Force. Other.

Interface Mechanisms (Fig. 2-1). Advisory councils, panels, boards, and committees. Other organizations.

Review and Decision making Process. Staff functions (technical and business). System program documentation. Levels of program review. Accountability. Program decision authority.

3. PLANNING FOR MAJOR SYSTEM ACQUISITIONS

The basic purposes served in the planning process are to: Develop concepts. Requirements, objectives and budget submissions.

Provide a framework for translation of strategic and operational concepts, technology, and intelligence forecasts and guidance into plans for research and development, force levels, personnel, and support. Provide guidance and direction for the application of current operating capabilities.

As this chapter is concerned with management, it must provide for basic understanding of the overall process of planning for system acquisitions. This encompasses concept, objectives, procedures, documentation, and organizational relationships. A number of studies and plans are developed with Defense Guidance (DG) being the primary document.

Specific elements to be developed are:

The Planning System. The concept (Fig. 3-1--a series of diagrams is recommended): The process. The participants. The RDT&E process. RDT&E categories. Coordination procedures. Documentation.

Planning for Technological Base Development. Planning for knowledge base. Research and development planning. Exploratory development. Research and development goals and forecasts. System relationships. Use of in-house labs. Exploratory development programs. Documentation.

Planning for Operational Capability. The process. Mission analyses. Development planning. Studies and analyses. Development objectives. Conceptual approaches. Systems identification. Mission need (continual analyses). Planning for systems. Technology assessment. Participants in planning. Documentation.

Planning for Integrated Logistics. Integrated logistics system concept. Total system approach. Planning documentation. Responsibilities.

4. PROGRAMMING

This chapter is designed to set forth the structure and procedures by which plans, objectives, and resources are translated into comprehensive programs against which monies, personnel, and schedules may be applied.

To attain the objectives of the programming process it is necessary to: Relate resources to missions and requirements. Link planning to budgeting. Establish programs around missions. Provide a capability for cost effectiveness studies. Appraise programs on a continuing basis. Establish a single channel for major decisions.

The primary documentation products of programming are the Five Year Defense Program (FYDP), Program Objectives Memorandum (POM), and the Program Decision Memorandum (PDM). Programming documentation, change procedures, and interaction with planning and budgeting are important elements.

Specific elements are: Introduction (Fig. 4-1--a series of diagrams is recommended). Program objectives. Relationship of mission requirements and resources. The DOD programming system. Relationship to planning and budgeting. Program elements. Five-Year Defense Program (FYDP). Process of study and appraisal. The decision process. Programs and program elements. Program changes and update. Reprogramming. Program documentation. References.

5. BUDGETING

The budgeting process is concerned essentially with authorization and appropriation actions. This involves preparation and justification of the budget, apportionment, allocation of funds, obligation, expenditures, audits, and reviews.

In this chapter the development, presentation, and justification of the budget must be emphasized. The budgetary process should be viewed in terms of objectives, processing mechanisms, and responsibilities of various officials and agencies. These include Congress, OMB, OSD, and DN organizations. Documentation, chronology of budgeting and legal considerations are important factors to be described.

Specific elements are: Introduction (Fig. 5-1--a series of diagrams is recommended). The budget structure and process. The budget cycle. Supra-Navy participants in budget process. Navy participation in the RDT&E budget process. Systems acquisition budgeting. Execution of the budget. Submission of budget estimates. Apportionment. Accounting. Flexibility in budget. Reprogramming/budgeting. Appraisal of the budget. Mission budgeting. Zero-base budgeting (mission-oriented decision packages). Obligation of funds. Audits and reviews. Budget changes. Reporting. References.

6. THE PRECONCEPTUAL EFFORT (see sample chart, Fig. 11)

The main objective of this phase is determination of mission need based on mission analysis reconciled with overall capabilities, priorities, and resources. Its principal documentation product is a Mission Element Need Statement (MENS), which is used to gain recognition of mission need by the Secretary of Defense and approval to identify and explore alternative solutions to the need.

MAJOR PROGRAM INITIATION

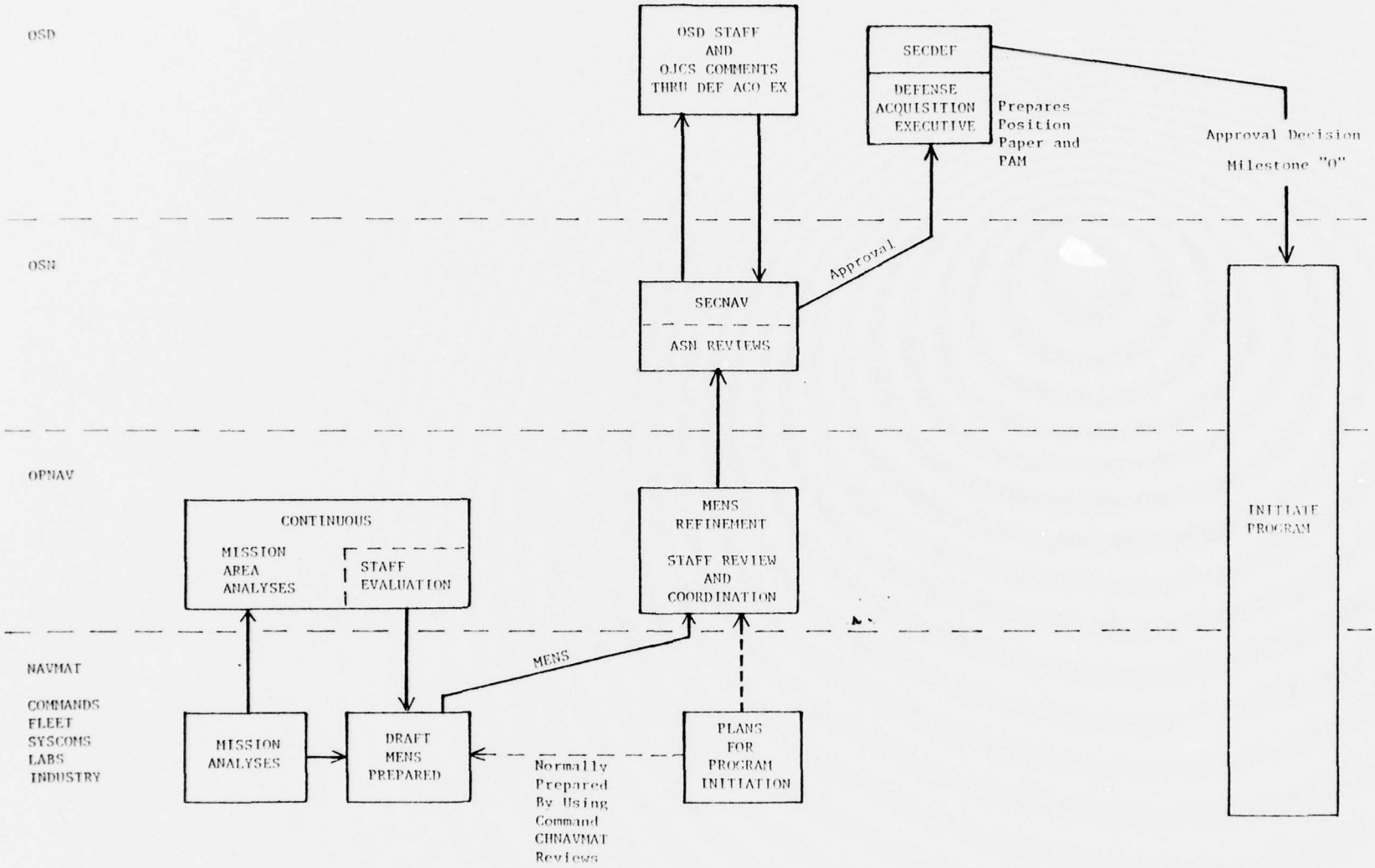


Figure 11 (Example)

This chapter must describe the basis for and the processes by which assessment of mission need is made and determination if a new capability is required. Specific elements are:

Mission Analysis Phase (Fig. 6-1). Mission area analyses. Threat evaluation. Capability assessment. Technology status. Resources. Need determination (the process). Responsibilities. Mission Element Need Statement (MENS). Key program events (Fig. 6-2).

Program Initiation Decision (Milestone 0). Evaluation and reconciliation of capabilities, resources, and priorities. The review process. Documentation. Budgeting actions. Mission element need approval. Program action assigned.

7. THE CONCEPTUAL EFFORT

The conceptual effort consists of two distinct phases. There is first the exploration of alternative concepts phase and, if the Secretary of Defense approves, then the demonstration and validation phase. The granting of authority by the Secretary of Defense to explore alternative system concepts starts the major system acquisition process. Such authority does not automatically mean that a new system will be acquired, so other optional means of satisfying the need must be analyzed parallel with the exploration of alternative concepts. The main objectives of this phase are to obtain valid information on a wide range of alternative concepts and to narrow the alternatives for the next phase. The basic documentation product generated is the Decision Coordination Paper (DCP) that is forwarded to the Secretary of Defense requesting approval to proceed with demonstration and validation.

The primary focus of the Demonstration and Validation phase is competitive demonstrations. The main objectives are concept verification to establish technical feasibility; the refinement of performance specifications; risk, cost, and schedule estimates; and subsystem interfaces.

This chapter must describe in detail the technical, programmatic, business, and management considerations extending from program initiation through the decision for full-scale development. Key events or activities should be identified and described for each organizational level by chart, flow diagrams, and narrative. Special emphasis and detail should be given to every aspect of acquisition strategy and program planning. Specific elements are:

Exploration of Alternative Concepts Phase (Fig. 7-1). Program Manager. Acquisition strategy. Alternative concepts considerations. Alternative solution considerations. Solicitation of multiple alternative concepts. Use of Government labs and other sources. Risk assessements. Cost/schedule estimates. Analysis

of proposals. Technology base development considerations. Tradeoff considerations. Feasibility analyses. Information provided contractors. Selection of sources. Contracting. Mission area analysis (continuing). Responsibilities. Key program events (Fig. 7-2).

Demonstration and Validation Decision (Milestone I). Review process. Documentation. Reaffirmation of mission need. Approval of alternatives.

Demonstration and Validation Phase (Fig. 7-3). Program management planning. Operational need analysis. Design analysis. Risk assessment. Tradeoffs. Environmental assessment. Prototype development. Contractual considerations. Budget/procurement authorizations. Program documentation. Development test and evaluation. Development/demonstration techniques. Subsystem interfaces. Production planning. Key program events (Fig. 7-4).

Full-Scale Development Decision (Milestone II). Total program considerations. Decision documentation. Reaffirmation of mission need. Procurement/production releases. Management thresholds.

8. FULL-SCALE DEVELOPMENT PHASE (Fig. 8-1)

The main objective of this phase is to complete system design, test, and evaluation before commitment to production.

This chapter's focus is principally technical. Emphasis must be given to bringing together all the facets of design, development, fabrication, development test and evaluation, logistic support, training, program documentation, etc. Key events and activities should be fully identified and all aspects of contracting emphasized. Use of flow charts is intended. Specific elements are:

Phase Activities. Full-scale design and development. Design technical and production readiness reviews. Production engineering. Support/training requirement. Hardware fabrication. Development test and evaluation (includes test environment). Source selection and contracting. Logistics support planning. Human factors and training plans. Development planning. Technical orders and manuals validation. Configuration management. Program documentation. Program funding. Selected Acquisition Report (SAR). Key program events (Fig. 8-2).

Production/Deployment Decision (Milestone III). Reaffirmation of need to produce. Technical risk in hand. Practical engineering design assured. Production engineering completed. Test and evaluate results meet objectives. Cost/schedule performance meet expectations. Production, maintenance, and operating costs acceptable. Any new technology of tradeoffs to be considered before

production. Status of auxiliary, test, training, and support equipment. Personnel training status. Logistics support plans completed. Funding approved.

9. PRODUCTION/DEPLOYMENT PHASES (Fig. 9-1)

In this chapter, the business considerations of program management should receive special attention. Production phasing and management, contract administration, auditing, logistic support, and deployment planning are especially important.

Specific elements are: Production phasing. Production management. Production activities. Configuration audits. Program management transfer. Full-scale logistics support implemented. Deployment planning. Turnover and acceptance. Key program events (Fig. 9-2).

10. PROGRAM CONTROL

This is the first of eleven chapters dealing with specific functional disciplines.

Program control is essentially a grouping of the business management aspects of system program management for centralized control. It becomes involved at the outset with development of the acquisition plan and plays a major role in program management throughout the process.

In the chapters, all the business functions are to be described and related, techniques of management discussed, and reporting requirements detailed. Specific elements are:

Introduction. Purpose. Major functions (acquisition strategy). Participants.

Organization. Size. Form.

Program Control Responsibilities. Estimating. Analyzing. Forecasting. Budgeting. Scheduling. Planning.

Techniques. Analysis. Forecasting. Cost estimating. Planning. Budgeting. Scheduling.

Reporting and Reviews. Reporting. Financial reporting. Formal status reports. Special reports and reviews.

Reference Publications. Economic Analysis and Program Evaluation (SECNAVINST 7000.14B). Contract Cost Performance (SECNAVINST 7000.15B). Acquisition Management System Control Program (SECNAVINST 7000.17A, July 29, 1971). DN Programming Manual (OPNAV 90P-1D). Committing of Navy Funds (OPNAVINST 7000.15). Cost Analysis (OPNAVINST 7000.17A).

11. PROCUREMENT

This chapter is to deal with the detailed legal responsibilities and authority of contracting officials, the fundamentals of procurement, types of contracts, contract changes, and performance of contractors. Legal consideration and documentation are especially important. Specific elements are:

Introduction. Procurement responsibility. Types of acquisitions. Procurement Fundamentals. Armed Services Procurement Regulations (ASPR). Support to procurement.

Role of the Contracting Officer. The Contracting Officer (CO). The Procuring Contracting Officer (PCO). The Administrative Contracting Officer (ACO). The Termination Contracting Officer (TCO).

Procurement Authority. Legal basis. Determination and Finding (D&F). ASPR.

Types of Contracts. Acquisition strategy. Advanced procurement planning. Request for proposal. Selecting the contract type. Pre-award surveys. Source selection procedures. Pre-negotiation. Negotiation. Post-negotiation.

Contract Changes. Change process. The change order. ACO and PCO responsibilities.

Performance of Contractors. Incentives. Cost. Schedule Quality system. Performance.

Reference Documents. Armed Services Procurement Act of 1947, as amended and codified in Chapter 137, Title 10, U.S. Code. Armed Services Procurement Regulations. Navy Procurement Directives. Proposal Evaluation and Source Selection (DODD 4105.62). Design to Cost (DODD 5000.28).

12. ENGINEERING MANAGEMENT

Details of the total engineering and technical effort required to transform an operational requirement into an operational system should be included in this chapter. The general areas of engineering management and contracting for engineering should also be covered. Specific elements are:

General. Engineering management. Contracting for engineering.

System Engineering. Definitions. The process. Iteration of the process. Preparation of specifications. Documentation (selection and uses). Engineering changes.

Technical Planning and Control. Design reviews and audits. Baseline management. Risk analysis. Technical Performance Measurement (TPM). Application of Military Specifications and Military Standards. Design to cost.

Engineering Specialties. Introduction. Reliability. Maintainability and maintenance engineering. Quality assurance. Electromagnetic compatibility. Survivability/vulnerability. System survivability. Human factors. Safety (systems and ground). Security during acquisition. System security. Value engineering. Packaging/transportability. Production engineering. Engineering support equipment. Environmental support.

Laboratory Support. Laboratory support of systems acquisition.

Reference Documents. DN Value Engineering Program (SECNAVINST 4858.2B). Engineering and Technical Services, Management and Control (OPNAVINST 4350.2).

13. CONFIGURATION MANAGEMENT

The discipline of configuration management consists of three major areas of effort that must be covered. These are identification, control, and status accounting. Management techniques and the detailed mechanics of configuration management should be addressed.

General. Definitions. Major areas of effort. Application. Objectives. DOD policy. Documentation. Organization structure.

Baseline Management (Fig. 13-1). System evolution. Establishing baseline. Selection of configuration items.

Configuration Identification. Definition. Purpose. System specification. Preparing development specifications. Interface requirements identification. Interface control. Product specifications preparation. Functional configuration audit. Physical configuration audit.

Configuration Control. Definition. Establishing control. Class changes. Configuration Control Board (CCB). Establishing change discipline.

Status Accounting. Definition. Tailoring the reports. Selecting the integrating agency. Cost reduction possibilities. Part numbering and serialization. Relationships.

Reference Documents. Configuration Management (DODD 5010.19). Configuration Management Implementation Guidance (DODI 5010.21). Configuration Management (NAVMAT 4130.1A).

14. TEST AND EVALUATION

In recent years, the significance of test and evaluation in major acquisition decisions has greatly increased. This chapter should cover in detail the management actions required to successfully verify the required performance of a system and establish its operational suitability in light of the user requirements. Specific elements are:

General. Introduction. Scope and definitions. Program manager responsibilities. Documentation. Interrelationships.

Government Systems Testing. Responsibilities. Procedures. Special topics. Contractor relationships. Responsible test organization. Funding. Test support documentation. Facilities.

Scheduling. Schedule establishment.

Reporting. Channels.

Organizations. Typical structure.

Reference Documents. Test and Evaluation (DODD 5000.3). Test and Evaluation (OPNAV 3960.10). Test and Evaluation (NAVMAT 3960.6A). Test and Evaluation of Ship Acquisition (NAVMAT 3960.7).

15. MANUFACTURING AND PRODUCTION MANAGEMENT

Guidance should be provided that will assure an understanding of production planning, documentation, review, and monitoring of the production program. The importance of proper integration with design and development should be emphasized. Specific elements are:

Introduction. Purpose and scope. Navy manufacturing and production. Responsibilities. Organizational roles. Terms explained.

Integration With Design and Development. Objectives. Producibility. Development engineering interface. Configuration management interface. Test and demonstration.

Production Planning. Program management interface. Program documentation. Production capability estimate. Production feasibility assessment. Production plans. Production readiness reviews.

Production Operations. Production functions. Program office monitorship. Contract administration surveillance. Technical tasks. Government-furnished property and services. Surveys. Data and reporting. Master urgency list. Manufacturing technology. Industrial facilities. Industrial preparedness planning. Transportation. Packaging, handling, and transportation.

Reference Documents. Reliability and Maintainability of Naval Material (SECNAVINST 3900.36A). Quality Assurance (SECNAVINST 4355.14). Contract Cost Performance, Fund Status and Cost/ Schedule Status Report (SECNAVINST 7000.15B). Contractor Cost Performance Measurement for Selected Acquisitions (SECNAVINST 7000.17A). Contractor Cost Data Reporting (SECNAVINST 7000.20).

16. INTEGRATED LOGISTICS SUPPORT

This chapter should identify and describe the philosophy, functions, and procedures required to assure support, operation, and maintenance of a major system. Specific elements are:

General. Purpose and responsibilities. The process. Logistics planning and operational support. Philosophy and relationships. Interface requirements. Objectives for industry. Concepts and plans. Data. Management baselines.

Reference Documents. Logistics Support (DODD 4100.35). Development of Integrated Logistics Support for Systems and Equipment (SECNAVINST 4000.29A). DN Integrated Logistics Support System (OPNAV 4100.3A). Integrated Logistics Support Planning Policy (NAVMAT 4000.20B).

17. FACILITIES SUPPORT

Acquisition of real property facilities is an integral part of the system acquisition process. Procedures for identifying requirements, programming, funding, and comprehensive input of civil engineering into the management process should be described. Specific elements are:

General. Concept.

Methodology. Programs/methods of approval. Funding. Facilities projects engineers.

Services. Facilities engineer services. Transfer of facilities. Facilities plan.

Reference Documents (list)

18. TRAINING

This subject includes training of personnel for management of the program and for the operation of the system.

General. Training requirements.

Training of Program Office Personnel. Determining needs. Types of training available. Responsibility for training. Program considerations.

Training of Operational Personnel. Training concepts. Types of training. Training requirements. Training organizations. Special training.

Reference Documents. Management Careers, Systems Acquisition (DODD 5000.23). Preparation and Implementation of Navy Training Plans in Support of Hardware and Non-Hardware Oriented Developments (OPNAVINST 1500.8H). Military Manpower, Personnel, and Training Support Requirements Determination (NAVMAT 5311.2A). Civilian Logistics Intern Program (NAVMAT 12950.4).

19. INTERFACE MANAGEMENT

One of the more difficult aspects of program management is that of interface management. Interface techniques and policies, management principles, and responsibilities should be discussed in detail. Specific elements are:

General. Introduction.

Requirements. Applications. Definitions. Responsibilities. Conceptual effort. Demonstration and validation phase. Full-scale development phase. Production phase. Deployment phase.

Procedures. General. Interface management agreement. Interface working groups.

Reference Documents (list).

20. DATA MANAGEMENT

Data constitutes a significant portion of program expenses and is essential to efficient management. The processes for identification, generation, and use of data should be prescribed in detail. Specific elements are:

Data Management. Introduction (Fig. 20-1). Responsibilities. Functional categories of data. Contractor data and reports. Identification of data requirements. Personnel. Data selection and substantiation.

Data Topics. Deferred data. Reprocurement data. Data acquisition.

Scientific and Technical Information. STINFO and Data.

Acquisition and Support of Computer Programs. General. Program manager responsibilities. Establishing operational requirements.

Reference Documents. Management of Technical Data (DODI 5010.12). Acquisition of Data from Contractors (DODI 5010.29). DN Data Management Program (NAVMAT 4000.15A).

21. THE PROGRAM OFFICE

The philosophy and concepts of program management should be established as a lead in to the details of organization, functions, and procedures employed by the program office. Specific elements are:

Introduction. Functional vs program management. Program and the Program Office (Fig. 21-1). Program Initiation.

Organizational Concepts. Criteria. Establishing a program cadre. Establishing a program office. Organizational relationships. Organizational placement. Organizational structure

Common Functional Elements. General. Program manager. Program control. Configuration management. Procurement. Production management. Engineering. Test and evaluation. Integrated logistics support. Management support. Liaison offices. Communications and electronics.

Intelligence Functions. Concepts. Integration. Support by local intelligence office. Contractor interface.

Security Assistance. Scope. Planning. Requirements. Administration.

22. DEPLOYMENT MANAGEMENT

Particular attention should be given to the coordination of all functions and interfaces among the many participants. Management requirements and responsibilities in the areas of testing, training support, transportation facilities, and system turnover must be addressed. Specific elements are:

General. Purpose and scope.

Requirements. Criteria for deployment. Transportation. Testing. Logistics support. Facilities support. Activation and initial operational capability. Fixed systems. Waivers and changes. Community relations. Field effort.

Transfer and Turnover. Program management responsibilities. Transfer. Transfer working group. Dates. Turnover.

Reference Documents (list).

PAGE

ATTACHMENTS

1. Mission Element Need Statement (MENS)
2. Decision Coordinating Paper (DCP)
3. The Defense Acquisition Executive
4. Defense Acquisition Review Council (DSARC)
5. Navy Acquisition Review Council (DNSARC)
6. Terms defined

FIGURES

1-1 Fundamental acquisition model
2-1 Organizational relationships
3-1 The planning process
4-1 The programming process
5-1 The budget process
6-1 Mission analysis phase
6-2 Key program events (Chart)
7-1 Alternative concept phase
7-2 Key program events (Chart)
7-3 Demonstration and validation phase
7-4 Key program events (Chart)
8-1 Full-scale development phase
8-2 Key program events (Chart)
9-1 Production deployment phases
9-2 Key program events (Chart)
13-1 Configuration management
14-1 Major Navy test facilities
14-2 Test and evaluation organization
20-1 Data
21-1 Typical Program Office

GLOSSARY

OUTLINE FOR TWO-VOLUME MANAGEMENT GUIDE

MAJOR SYSTEMS ACQUISITION MANAGEMENT GUIDE
VOLUME I

INTRODUCTION

1. THE GOVERNMENT OF THE UNITED STATES: ORGANIZATIONAL OBJECTIVES AND ROLES

The Constitution. The Executive. The Legislative. The Judicial. Independent Office and Establishments.

2. DEPARTMENT OF DEFENSE *

Functions and roles. Legal foundation. Secretary of Defense. Defense Acquisition Executive. Director of Defense Research and Engineering. The Joint Chiefs of Staff. Boards, councils, and panels. Other staff. Procedural interfaces (OSD staff, OJCS, and Services). Internal relationships (Congress, OMB, GAO).

3. DEPARTMENT OF THE NAVY

Organizational objectives and roles. Secretary of the Navy. The Secretariat. Legal premises, composition, and responsibilities. Procedural interfaces. External relationships.

Office of Chief, Naval Operations. Functions and authority. Organizational concept and principles. Staff structure and legal foundation. Boards, councils, panels, etc. Responsibilities. Staff procedure. Interface mechanisms. External relationships.

Chief of Naval Materiel. Systems Commands. Office of Program Appraisal. Office of Naval Research. Director of Navy Laboratories. Operational Test and Evaluation Fource. Program Information Center. RDT&E facilities.

3-5. These chapters have the same titles and consist of the same sections as the single volume outline; however, each element should be described in greater detail.

6-9. The chapters remain idential to those in the single-volume outline.

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* Much greater detail is to be provided in this chapter than is intended for the single-volume approach.

10. THE PROGRAM OFFICE **

Program control. Engineering management. Procurement. Configuration management. Data management. Interface management. Manufacturing and production management. Other staff assistance.

11. SYSTEM SUPPORT **

Integrated logistics support. Facilities support/civil engineering. Training. Test and evaluation. Intelligence. Security assistance. Other.

ATTACHMENTS

FIGURES

GLOSSARY

** These subjects are to be addressed in only enough depth to provide a general understanding of the organizations and functions involved and interface mechanisms with higher levels.

VOLUME II

INTRODUCTION

1. GENERAL

Same as single volume

2. AUTHORITY AND RESPONSIBILITIES IN MAJOR SYSTEMS ACQUISITION ***

Secretary of Defense. OSD staff. OJCS. Office of Secretary of the navy. Office of Chief of Naval Operations. Chief of Naval Material. Systems Command.

3. THE PLANNING, PROGRAMMING AND BUDGETING SYSTEM ***

Planning. Programming. Budgeting.

4-20. These chapters remain as outlined in the single document approach.

*** Chapters 2 and 3 are to be addressed only to depth needed to provide a general understanding of the mechanics of major program initiation and of the review and decisionmaking process.

Appendix B

FUNCTIONS AND RESPONSIBILITIES ASSIGNED TO ASSISTANT SECRETARIES OF THE NAVY

This appendix summarizes the functions and responsibilities related to major system acquisitions assigned to each Assistant Secretary of the Navy (ASN) by SECNAV Instructions.

ASSISTANT SECRETARY OF THE NAVY (R&D)

1. Reliability and Maintainability (R&M) of Naval Material (3900.36A). Primary responsibility "for the application" of policies to the design and development of all systems and material.

2. Rapid Development Capability (RDC) for Warfare Systems (3900.37A). Reviews and approves RDC Committee action with regard to the technical aspects and feasibility of RDC requests and projects.

3. Establishment of Policy for, and Technical Evaluation of, Independent Research and Development Programs (3900.40)--(Responsibility shared with ASN(I&L)):
   a. Represents Navy on IR&D Policy Council.
   b. Disseminates DOD policy and guidance.

4. Value Engineering (VE) (4858.2B). "Responsible for VE in all R&D (design/development) contracts."

5. System Acquisition in the Department of the Navy (5000.1). As a result of revisions to DODD 5000.1 and 5000.2 on 18 January 1977, significant revisions to this Instruction will be required. It is noted, however, that the current SECNAVINST 5000.1 does not assign any specific responsibilities to the ASNs other than to advise SECNAV "with respect to decisions relative to initiation and attainment of major acquisition programs." Enclosure 3 to the Instructions more fully describes the acquisition process. Specific responsibilities are assigned the Secretariat in directly related SECNAV Instructions, including 5000.16D, 5200.30, 5420.172B, 5430.67A.

6. Planning, Programming, and Budgeting System (PPBS) (5000.16D):
   a. "Within established responsibilities" (see 5430.7k) "will have an active role in support of the PPBS."
   b. "Represents the Secretary of the Navy in matters related to DCPS.
   c. "Staff and present to the Secretary of the Navy for decision, the R&D section of the Program Objectives Memorandum."
   d. Provides "staff advice and analysis as appropriate for inclusion in the SECNAV Program Objectives Memorandum briefing and decision papers."

7. Decision Coordinating Papers (DCPs) and Program Memoranda (PMs) - Management Thereof (5200.30):

a. "Take the lead for all DCPS and PMs required for DSARC I and II."

b. "Comment, coordinate, and forward the DCPs and PMs for programs which have not yet reached the point in development where a DSARC III decision is required, except for those programs which he feels warrant the personal attention of SECNAV."

c. "Review and comment on RDT&E aspects of a program for which a DCP or PM is prepared to obtain a DSARC III decision."

8. Information Requirements Control (5260.1C). None. The ASN (FM) coordinates information requirements with the ASN (R&D) when there may be significant impact on programs or operations under his cognizance.

9. Authority and Responsibility for the Administration of the Navy (5400.13). For more specific systems acquisition functions and responsibilities, it is necessary to look to other SECNAV Instructions, including 5000.1, 5000.16D, 5200.30, 5420.173B, 5430.7k, and 5430.67A. With respect to the Navy Secretariat, it partially duplicates assignments made to the Civilian Executive Assistants to SECNAV as prescribed in 5430.7k. However, in this Instruction, the general responsibilities of the ASNs are consolidated, whereas under 5430.7k, the responsibilities of each ASN are separately identified.

10. Navy Systems Acquisition Review Council (DNSARC) (5420.172B). Mission of the Council is to provide a mechanism by which SECNAV receives advice and counsel of his principal advisors in systems acquisitions programs (including DCPs thereon) and recommends action to SECNAV. SECNAV decisions constitute approval of programs where Navy has full management responsibility. Where managed by OSD (DODD 5000.1), SECNAV decision represents Navy position to OSD.

With respect to above functions and responsibilities of the DNSARC, the ASN (R&D):

a. Serves as member.

b. Serves as Chairman when he has primary cognizance over matters to be reviewed (DSARC I and II).

11. SECNAV Assignment of Responsibilities to Civilian Executive Assistants (5430.7k):

a. Responsible for: (1) "All matters related to research, development, engineering, test, and evaluation efforts." (2) "Management of the appropriation, Research, Development, Test, and Evaluation, Navy." (3) Oceanography and ocean engineering.

b. Designated as Chairman of the R&D Committee, DN.

c. Within above areas, has responsibility for: (1) "Review and evaluation of appropriate actions" regarding program development and execution. (2) "The formulation, development, and promulgation of management policies, systems, procedures, standards, or decisions...." (3) "Formulation of recommendations" on fundamental policies, orders, or directions for issuance by SECNAV.

12. Assignment of Responsibilities for RDT&E (5430.67A). Responsible for Navy-wide "policy supervision" of all RDT&E within Navy, including "management" of RDT&E appropriation. Receives support and assistance from Director, RDT&E (under CNO), DC of S(R&D) Marine Corps, CND, CNR, and Project Managers of SECNAV designated projects.

13. Military-Civilian Technology Transfer and Cooperative Development (5700.14):

a. Provides general guidelines in military-civilian technology transfer and cooperative development.

b. Submits an annual report to SECNAV on accomplishments.

14. Economic Analysis and Program Evaluation for Navy Resource Management (7000.14B). None. Assigned to ASN (FM)

15. Contractor Cost Performance Measurement for Selected Acquisitions (7000.17A). None. Assigned to ASN (FM).

16. Selected Acquisition Reports (SARs) (7700.5c). "Reviews" SARs (prepared by CNO or CMC), prior to release, with emphasis on R&D matters and technical data."

ASSISTANT SECRETARY OF THE NAVY (FM)

1. Reliability and Maintainability (R&M) of Navy Material (3900.36A). None. See ASNs (I&L) and R&D).

2. Value Engineering (VE) (4858.2B). "Responsible for VE budget guidance."

3. System Acquisition in the Department of the Navy (5000.1). As a result of revisions to DODD 5000.1 and 5000.2 on 18 January 1977, significant revisions to this Instruction will be required. It is noted, however, that the current SECNAVINST 5000.1 does not assign any specific responsibilities to the ASNs other than to advise SECNAV "with respect to decisions relative to initiation and attainment of major acquisition programs." Enclosure 3 to the Instructions more fully describes the acquisition process. Specific responsibilities are assigned the Secretariat in directly related SECNAV Instructions, including 5000.16D, 5200.30, 5420.172B, 5430.7k, and 5430.67A.

4. Planning, Programming, and Budgeting System (PPBS) (5000.16D).

a. "Within established responsibilities" (see 5430.7k) "will have an active role in support of" PPBS.

b. Shall "represent the Secretary of the Navy in policy matters regarding the PPBS in relations with the ASD (comp)."

c. In his role as Comptroller of the Navy (see 5430.7k), he has responsibility for, among other things: (1) Designing and maintaining a DN cost information system (for program elements and items). (2) Incorporating cost and program changes into the programming system. (3) Evaluating PCRs and other PPBS documents from a budgetary and financial viewpoint. (4) Coordinating the development and processing of the annual DN budget estimates. (5) Other functions set forth in Paragraph 8a of the Instructions.

5. Decision Coordinating Papers (DCPs) and Program Memoranda (PMs) - Management Thereof (5200.30). "Review all DCPs and PMs and comment" on the:

a. Reasonableness and accuracy of the financial plan.

b. Plans for management information and program control requirements and validating procedures.

6. Department of the Navy Automatic Data Processing Program (5600.26). In capacity as Senior ADP Policy Official:

a. Serves as focal point for ADP policy and administration of Navy ADP program.

b. Coordinates with Civilian Executive Assistants on ADP matters within their areas.

7. Information Requirements Control (5260.1C). "Responsible for the overall coordination of the disciplines used to manage and control DN information." Responsibilities are carried out through specified monitoring, coordination and liaison activities as well as in the review and approval of acquisition management systems and all applicable data requirements placed on contractors. (Implements DODD 5000.19).

8. Authority and Responsibility for the Administration of the Department of the Navy (5400.13). For more specific systems acquisition functions and responsibilities, it is necessary to look to other SECNAV Instructions, including 5000.1, 5000.16D, 5200.30, 5420,172B, 5430.7k and 5430.67A. With respect to the Navy Secretariat, it partially duplicates assignments made to the Civilian Executive Assistants to SECNAV as prescribed in 5430.7k. However, in this Instruction, the general responsibilities of the ASNs are consolidated, whereas under 5430.7k, the responsibilities of each ASN are separately identified.

9. Navy Systems Acquisition Review Council (DNSARC) (5420.172B):

a. Serves as a member.

b. Reports and provides (through his Advisor for Resource Analysis) the results of independent evaluation of program costs as well as information on CAIG reports.

10. SECNAV Assignment of Responsibilities to Civilian Executive Assistants (5430.7k):

a. "Responsible for all matters related to": (1) Financial management of DN, including (a) budgeting, (b) accounting, (c) disbursing, (d) financing, (e) progress and statistical reporting, and (f) auditing. (2) Management information systems. (3) ADP systems (except where integral to weapon system).

b. Designated and appointed Comptroller of the Navy (pursuant to 10 USC 5061).

c. Designated as Senior ADP Policy Official of DN.

d. Responsible for liaison with ASD (Comp), GAO, and OMB on financial matters.

11. Assignment of Responsibilities for RDT&E (5430.67A). None. Assigned to ASN (R&D).

12. Economic Analysis and Program Evaluation for Navy Resource Management (7000.14B). (Note: This Instruction implements DODI 7041.3, which is designed to provide a more systematic approach to decision making. It prescribes the use of economic analysis and program evaluation techniques for use in the systems acquisition process at all levels, within the provisions of the PPBS, and in annual budget reviews.)

"Responsible for the overall policy pertaining to economic analysis and program evaluation: within DN.

13. Contract Cost Performance, Fund Status and Cost/Schedule Schedule Status Reports (7000.15B). As Comptroller of the Navy:

a. Performs a one time review, for each project, of financial information requirements selected for contractual application.

b. Reviews, on case by case basis, planned changes to approved financial information requirements selected for contractual application.

c. Reviews and approves all financial information and control systems designed for general use in solicitation and for application in contractual documents.

14. Contractor Cost Performance Measurement in Selected Acquisitions (7000.17A):

a. "Formulates Navy policy concerning performance measurement."

b. "Maintains surveillance" over implementation.

c. "Develops and prescribes management information reports."

15. Department of the Navy Cost Analysis Program (7000.19B). In capacity as ASN (FM):

a. Provides policy for cost analysis in Navy and Marine Corps.

b. Participates in staffing of financial management and cost sections for all Department of Navy DCPs prior to DNSARC meeting on specific weapon systems.

In capacity as Comptroller of the Navy:

a. Ensures Selected Acquisition Reports are consistent with estimates for major weapon systems.

b. Coordinates programs to ensure guidance for project managers in areas addressed by DODD 5000.4.

c. Monitors Navy cost analysis techniques.

16. Contractor Cost Data Reporting (CCDR) (7000.20). Provides policy guidlines and coordinates implementation of CCDR within Navy and Marine Corps.

17. Selected Acquisition Reports (SAR) (7700.5C). Responsible for "overall coordination" of the SAR system, including:

a. Coordination of preliminary and final reviews.

b. Review of cost information.

c. Submission of approved reports to OSD.

d. Acts as focal point for DN in all SAR matters.

ASSISTANT SECRETARY OF THE NAVY (I&L)

1. Reliability and Maintainability (R&M) of Naval Material (3900.36A). Primary responsibility for application of policies "for all systems and material in production and service use."

2. Rapid Development Capability (RDC) for Warfare Systems (3900.37A). Reviews and approves RDC Committee action with regard to the production, procurement, and logistics aspects of RDC requests and projects.

3. Establishment of Policy for, and Technical Evaluation of, Independent Research and Development Programs (3900.40)-- Responsibility shared with ASN(R&D):

a. Represents Navy on IR&D Policy Council.

b. Disseminates DOD policy and guidance.

4. Value Engineering (VE) (4858.2B). Primary responsibility for "the overall management" of the VE Program.

5. System Acquisition in the Department of the Navy (5000.1). As a result of revisions to DODD 5000.1 and 5000.2 on 18 January 1977, significant revisions to this Instruction will be required. It is noted, however, that the current SECNAVINST 5000.1 does not assign any specific responsibilities to the ASNs other than to advise SECNAV "with respect to decisions relative to initiation and attainment of major acquisition programs." Enclosure 3 to the

Instructions more fully describes the acquisition process. Specific responsibilities are assigned the Secretariat in directly related SECNAV Instructions, including 5000.16D, 5200.30, 5420.172B, 5430.7k and 5430.67A.

6. Planning, Programming and Budgeting Systems (PPBS) (5000.16D):

a. "Within established responsibilities" (see 5430.7k), will have an active role in support of" PPBS.

b. Provides "staff advice and analysis as appropriate for inclusion in SECNAV Program Objectives Memorandum briefing and decision papers."

7. Decision Coordinating Papers (DCPs) and Program Memoranda (PMs) - Management Thereof (5200.30):

a. "Takes the lead" for all DCPs and PMs required for DSARC III.

b. "Comments, coordinates, and forwards" all DCPs and PMs for programs at or beyond DSARC III decision point (except where he feels SECNAV should see).

c. "Reviews and comments" on logistics, production and procurement aspects of a DEP or PM prepared to obtain a DSARC I or II decision.

8. Information Requirements Control (5260.1C). None. The ASN (FM) coordinates information requirements with the ASN (I&L) where there may be significant impact on programs or operations under this cognizance.

9. Authority and Responsibility for the Administration of the Navy 5400.13). For more specific systems acquisition functions and responsibilities, it is necessary to look to other NAVSEC Instructions, including 5000.1, 5000.16D, 5200.30, 5420.172B, 5430.7K and 5430.67A. With respect to the Navy Secretariat, it partially duplicates assignments made to the Civilian Executive Assistants to SECNAV as prescribed in 5430.7k. However, in this Instruction, the general responsibilities of the ASNs are consolidated, whereas under 5430.7k, the responsibilities of each ASN are separately identified.

10. Navy Systems Acquisition Review Council (DNSARC) (5420.172B). Mission of the Council is to provide mechanism by which SECNAV receives advice and counsel of his principal advisors in systems acquisition programs. The DNSARC receives, reviews, and appraises systems acquisitions programs (including DCPs therein) and recommends action to SECNAV. SECNAV decisions establish approved programs where Navy has full management responsibility. Where managed by OSD (DODD 5000.1), SECNAV decision represents Navy position to OSD.

With respect to above functions and responsibilities of the DNSARC, the ASN (I&L):

a. Serves as member.

b. Serves as Chairman when he has primary cognizance over matters to be reviewed (DSARC III).

11. SECNAV Assignment of Responsibilities to Civilian Executive Assistants (5430.7k):

a. "Responsible for all matters related to: (1) Procurement and production. (2) Supply, distribution, alteration, maintenance and disposal of material. (3) Transportation and telecommunications. (4) Construction - Real Estate - Quarters. (5) Printing and publications. (6) Enviornmental matters. (7) Other.

b. Within above areas, has responsibility for: (1) "Review and evaluation of appropriate actions" regarding program development and execution. (2) "The formulation, development and promulgation, standards, or decisions...." (3) "Formulation of recommendations" in fundamental policies, orders, or directions for issuance by SECNAV.

12. Assignment of Responsibilities for RDT&E (5430.67A). None. Assigned to ASN (R&D)

13. Economic Analysis and Program Evaluation for Navy Resource Management (7000.14B). None. Assigned to ASN (FM)

14. Contractor Cost Performance Measurement for Selected Acquisitions (7000.17A). None. Assigned to ASN (FM)

15. Selected Acquisition Reports (SARs) (7700.5C). "Reviews" SARs (prepared by CNO or CMC), prior to release, with "emphasis on procurement and production plans, milestones and variances, including the area of logistics support."

Appendix C

SUMMARY OF EXTRACTS FROM SECNAV INSTRUCTIONS

This appendix includes brief summaries of extracts from SECNAV Instructions that pertain to the distribution in the Navy of functions and responsibilities related to major system acquisitions.

ASSIGNMENT OF FUNCTIONS FOR THE DEFENSE SCIENTIFIC AND TECHNICAL INFORMATION PROGRAM

SECNAVINST 3900.21 (4 February 1963) transmits for compliance DOD Instructions 5129.43, subject, Assignment of Functions for the Defense Scientific and Technical Information Program, which provides for the accumulation and dissemination of sceintific and technical information throughout DOD and the scientific and technical community.

Assignment of Functions and Responsibilities

CNR. Designated as single point of contact with the ODDR&E, for liaison purposes.

RELIABILITY AND MAINTAINABILITY (R&M) OF NAVAL MATERIAL

SECNAVINST 3900.36A (17 June 1979) establishes policies and procedures (implementing applicable MIL STDs) designed to achieve and maintain the highest level of reliability and maintainability of systems and equipment.

Assignment of Functions and Responsibilities

ASN (R&D). Responsible for the "application" of R&M policies to the design and development of all systems and material.

ASN (I&L). Responsible for the "application of R&M policies for all systems and material "in production and service use."

CNR. (1) Develops techniques. (2) Establishes and funds basic programs for R&M based on current and future systems requirements.

CNO and CMC. (1) Ensures that requirements documents for systems include numerical R&M requirement statements. (2) Evaluates proposed decreases in R&M requirements for impact on operational characteristics of systems.

CNM, NSCs, and PMs. Thirteen specific areas assigned, including: (1) Ensure implementation of program. (2) Incorporate R&M provisions in all pertinent documents. (3) Determine adequacy of contractors' R&M programs.

RAPID DEVELOPMENT CAPABILITY FOR WARFARE SYSTEMS

SECNAVINST 3900.37A (27 October 1971) provides special procedures for bypassing or expediting the use of normal procedures in the systems acquisition process where time is especially critical in developing a means of meeting an enemy threat. It establishes a Rapid Development Capability (RDC) Committee within the Navy to assess the need for and value of RDC projects and to determine which procedures might be dispensed with or expedited.

Assignment of Functions and Responsibilities

ASN(R&D). Reviews and approves RDC Committee action with regard to the technical aspects and feasibility of RDC requests and projects.

ASN(I&L). Reviews and approves RDC Committee action with regard to the production, procurement, and logistics aspects of RDC requests and projects.

CNO (or CMC). (a) Establishes RDC Committee. (b) Recommends and justifies projects for RDC Committee consideration.

ESTABLISHMENT OF POLICY FOR, AND TECHNICAL EVALUATION OF, INDEPENDENT RESEARCH AND DEVELOPMENT PROGRAMS

SECNAVINST 3900.40 (26 August 1972) implements DODI 5100.66 which establishes an IR&D Policy Council (chaired by the DDR&E) which assigns responsibilities and procedures for technical evaluation and review of IR&D programs conducted by defense contractors when they have relevance to a military function or operation.

Assignment of Functions and Responsibilities

ASN(R&D)--Shared with the ASN(I&L). (a) Represents Navy on IR&D Policy Council. (b) Disseminates DOD policy and guidance.

ASN(I&L). Same as for ASN(R&D). Share responsibilities.

CNR. Acts as IR&D Program Manager, assisted by elements of CNO.

AUTOMATIC TEST, MONITORING, AND DIAGNOSTIC SYSTEMS AND EQUIPMENT: POLICY AND RESPONSIBILITY FOR

SECNAVINST 3960.4 (12 October 1973) establishes policy and responsibility for the selection, development, acquisition, standardization, application, and logistic support of all types of automatic and semiautomatic test, monitoring, and diagnostic systems and equipment, hereafter referred to as ATE.

Assignment of Functions and Responsibilities

CNO. (a) Monitors actions to implement Navy automatic test equipment (ATE) policy except Marine Corps. (b) Monitors compliance annually. (c) Ensures incorporation in operational documents.

CMC. (a) Monitors compliance on annual basis. (b) Establishes single point of contct for ATE matters.

CNM. (a) Incorporates documentation requirement that information be provided at program milestones (1) how guidelines are observed, (2) statement if deviation necessary. (b) Provides central point where ATE information available to project managers. (c) Provides advice to Secretary of Navy, CNO and CMC on ATE matters.

Addressees. Issue or revise existing instructions to comply with directive.

PREPARATION OF MATERIEL PLANNING STUDIES FOR PRINCIPAL ITEMS OF MATERIEL

SECNAVINST 4000.5B (8 January 1971) establishes within Department of the Navy a uniform procedure for presentation and review of principal materiel item requirements.

Assignment of Functions and Responsibilities

CNO and CMC. (a) Designates peacetime and mobilization plans on which requirements will be computed. (b) Prescribes Materiel Planning Study format with instructions. (c) Issues planning assumptions and factors for guidance for determining materiel requirements of Materiel Planning Studies. (d) Interprets instructions and procedures. (e) Prescribes guidance required for submission of Materiel Planning Studies. (f) Designates principal items for Materiel Planning Studies and master list of items. (g) Coordinates interchange of requirement data with other military departments. (h) Establishes procedures for review and approval of Materiel Planning Studies. (i) Specifies time schedule and distribution for each submission.

DEVELOPMENT OF INTEGRATED LOGISTICS SUPPORT FOR SYSTEMS/EQUIPMENTS

SECNAVINST 4000.29A (13 January 1971) implements DOD Directive 4100.35, which provides policies and procedures designed to assure that all support factors necessary for the effective and econominal support of a system for its life cycle are fully considered at all stages of the acquisition process.

Assignment of Functions and Responsibilities

Responsibility for adequate consideration of ILS matters (from design concept throughout the life cycle) is assigned to "those charged with the logistic support function." Specific responsibilities are assigned to CNO and CMC to assure, among other things, that: (a) Policies and ILS concepts are implemented. (b) Appropriate data is considered and incorporated in operational requirements documentation.

DEPARTMENT OF DEFENSE STANDARDIZATION PROGRAM

SECNAVINST 4120,3C (9 August 1973) implements DODD 4120.3, which provides for Department of Defense Standardization Program, and assigns responsibility for carrying out the program in the Department of the Navy.

Assignment of Functions and Responsibilities

CNM (under CNO). (1) Administers and operates the Navy Departmental Standardization Program and is the "Assignee" for DOD Standardization assignments. (2) Nominates the Navy representatives to the Defense Materiel Specifications and Standards Board. (3) Coordinates changes to DOD Directives 4120.3 of 6 June 1973 and Defense Standardization Manual 4120.3M.

ASSIGNMENT OF RESPONSIBILITY FOR MANAGEMENT AND CONTROL OF ENGINEERING AND TECHNICAL SERVICES

SECNAVINST 4350.8B (1 July 1976) assigns responsibility for the management and control of engineering and technical services procured or used by the Department of the Navy.

Assignment of Functions and Responsibilities

CNO and CMC. (a) Coordinates and maintains cognizance over engineering and technical services defined in DODD 1130.2, 2 October 1965. (b) Reviews and approves requests for exceptions to the 12-month limitation placed on use of contract field services. (c) Maintains coordination in uniformly carrying out Navy program.

CNO, Makes semiannual reports to the ASN(I&L)

QUALITY ASSURANCE

SECNAVINST 4355.14 (7 August 1972) implements DODD 4155.1, February 9, 1972, subject, Quality Assurance; assigns responsibilities for quality assurance direction and administration; and designates a focal point in the Department of Navy for ensuring and monitoring quality assurance compliance.

Assignment of Fucntions and Responsibilities

CNM (under CNO). (a) Serves as focal point within Navy for ensuring compliance with DODD 4155.1. (b) Monitors compliance with DODD 4155.1. (c) Advises and coordinates other program focal points on quality matters which may have impact on Navy metrology, calibration, and other programs related to system acquisition in the Department of the Navy. (d) Develops and issues supplemental instructions and criteria further implementing DODD 4155.1.

CMC. Directs and monitors compliance in the Marine Corps of procisions of DODD 4155.1.

DEPARTMENT OF THE NAVY VALUE ENGINEERING (VE) PROGRAM

SECNAVINST 4858.2B (26 December 1972) implements DODD 5010.8 concerning VE which is designed to eliminate unessential characteristics and functions in DOD systems/equipment and minimize costs through the organized use of value engineering techniques.

Assignment of Functions and Responsibilities

ASN(I&L). Responsible for overall management of the VE Program within the Navy.

ASN(FM). Responsible for VE budget guidance.

ASN(R&D). Responsible for VE in all R&D (design/development) contracts.

CNM. Responsible for developing objectives, policies, and procedures to accomplish uniform control of VE.

CMC. Same as CNM as applicable to Marine Corps.

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SYSTEM ACQUISITIONS IN THE DEPARTMENT OF THE NAVY

SECNAVINST 5000.1 (13 March 1972, as revised 14 May 1976) implements DODD 5000.1 of 22 December 1975 which established policies and procedures for more effective management control and execution of systems acquisition programs.

Assignment of Functions and Responsibilities

As a result of revisions to DODD 5000.1 and 5000.2 on 18 January 1977, significant revisions to this Instruciton will be required. It is noted, however, that the current SECNAVINST 5000.1 does not assign any specific responsibilities to the ASNs other than to advise SECNAV "with respect to decisions relative to initiation and attainment of major acquisition programs." Enclosure 3 to the Instructions more fully describes the acquisition process. Specific responsibilities are assigned the Secretariat in directly related SECNAV Instructions, including 5000.30, 5420.17aB, 5430.7k, and 5430.67A.

POLICY, ROLES, AND RESPONSIBILITIES WITH THE DEPARTMENT OF THE NAVY FOR IMPLEMENTATION OF THE DOD PLANNING, PROGRAMMING, AND BUDGETING SYSTEM (PPBS)

SECNAVINST 5000.16D (8 January 1970) implements DODI 7045.7 covering the PPBS, which defines and systematizes the planning, programming, and budgeting process on a DOD-wide basis; describes the PPBS within the Navy.

Assignment of Functions and Responsibilities

ASN(FM). Represents SECNAV in PPBS policy matters in relations with ASD (Comp).

ASN(R&D). (a) Represents SECNAV in matters related to "Development Concept Papers." (b) Staffs and presents to SECNAV, for decision, the R&D section of the Program Objectives Memorandum.

All ASNs. (a) Provide advice and analyses as appropriate for inclusion in the SECNAV Program Objectives Memorandum briefing and decision papers. (b) Have an active role in support of the PPBS.

Director, Office of Program Appraisal. (a) Advises Navy Secretariat concerning Strategic and Fiscal Guidance Memoranda, the Joint Force Memorandum, Program Change Requests, Program Decision Memoranda, and other PPBS documentations. (b) Presents programming matters to SECNAV for action. (c) Prepares policy guidance for SECNAV approval in development of Program Objectives Memorandum (POM). (d) Appraises POM and coordinates Secretariat reviews.

CNO (and CMC, as appropriate). (a) Operates Navy Program Information Center. (b) Responsible for planning and programming within Navy under PPBS. (c) Determines requirements for new programs and changes to approved programs. (d) Develops DN response to Fiscal and Logistics Guidance, Program Change Divisions, and Program Decision Memorandum.

Comptroller of the Navy. Responsible for nine identified budget related areas involving costs, program changes, budget estimates and other matters.

Navy Program Information Center (under CNO). Responsible for eight identified areas largely involving paper processing and coordination roles, including coordination of the Program Objectives Memorandum and responses to logistics guidance, Program Change Decisions, and Program Decision Memoranda.

DEPARTMENT OF THE NAVY AUTOMATIC DATA PROCESSING PROGRAM

SECNAVINST 5200.26 (25 September 1970) establishes departmental-level procedures for implementing the Department of Navy Automatic Data Processing (ADP) Program established by SECNAVINST 5200.25, 25 September 1970.

Assignment of Functions and Responsibilities

Heads of Departmental Components. Determine and validate requirements and assume responsibility for design and development of their automated data systems.

Senior ADP Policy Official. (a) Serves as focal point for ADP policy and administration of Navy ADC program. (b) Coordinates with Civilian Executive Assistants on ADP matters within their areas.

CNO and CMC. Assumes responsibility to Senior ADP Policy Official for accomplishing ADP Program objectives and other actions for organizations under their command or support.

Director, Department of Navy ADP Management. Assumes responsibility for reporting to Senior ADP Policy Official accomplishing Department of the Navy-wide ADP Program objectives and coordination of all ADP matters relating to Comptroller of the Navy, Office of Naval Research, Office of Civilian Manpower Management, and other organizations under CNO or CMC.

Director, Automatic Data Processing Equipment Selection Office (ADPESO). Has access to Senior ADP Policy official for ADP selection/acquisition matters.

MANAGEMENT OF DECISION COORDINATING PAPERS (DCPs) AND PROGRAM MEMORANDA (PMS) WITHIN THE DEPARTMENT OF THE NAVY (DN)

SECNAVINST 5200.30 (27 August 1975) promulgates policies and procedures for preparing, staffing, and processing DCPs and PMs within DN, consistent with DODI 5000.2 (21 January 1975) covering the same subject matter.

Assignment of Functions and Responsibilities

ASN(R&D). (a) Takes the lead for all DCPs and PMs required for DSARC I and II. (b) Comments, coordinates, and forwards the DCPs and PMs for programs which have not yet reached the point in development where a DSARC III decision is required, except for programs which he feels warrant the personal attention of SECNAV. (c) Reviews and comments on RDT&E aspects of a program for which a DCP or PM is prepared to obtain a DSARC III decision.

ASN(I&L). (a) Takes the lead for all DCPs and PMs required for DSARC III. (b) Comments, coordinates, and forwards all DCPs and PMs for programs which are at or beyond the point where a DSARC III decision is required, except for programs which he feels warrant the personal attention of SECNAV. (c) Reviews and comments on logistics, production, and procurement aspects of a DCP or PM prepared to obtain a DSARC I or II decision.

ASN(FM). Reviews all DCPs and PMs and comments on the: (a) Reasonableness and accuracy of the financial plan contained therein. (b) Plans for management information and program control requirements and validating procedures.

CNO. As principal Naval adviser to SECNAV, prepares all DCPs and PMs on Navy programs, and: (a) Provides staff assistance to the ASN(R&D) and ASN(I&L) for review of DCPs and PMs on Navy programs and those of Navy interest. (b) Provides the central repository and distribution point, within the DN, for all DCPs and PMs.

CMC. As principal adviser to SECNAV for Marine Corps matters, prepares all DCPs and PMs on Marine Corps programs, and: (a) Provides staff assistance to the ASN(R&D) and ASN(I&L) for the review of all DCPs and PMs on Marine Corps programs and those of Marine Corps interest. (b) Advises CNO of information furnished to the SECNAV on Navy and other service DCPs and PMs of Marine Corps interest.

Director, Office of Program Appraisal. Reviews and comments on the programming aspects of all DCPs and PMs, including consistency of programs with outstanding SECDEF and SECNAV policy and planning guidance.

INFORMATION REQUIREMENTS CONTROL

SECNAVINST 5260.1C (20 October 1976) implements DODD 5000.19 on the same subject, which establishes uniform criteria for use in the management and control of information requirements levied on lower tier organizational elements or in private industries; and to prevent the imposition of unnecessary, unauthorized, or duplicative information requirements.

Assignment of Functions and Responsibilities

ASN(FM). Assigned responsibility for overall coordination of the disciplines used to manage and control DN information. This includes the review and approval of acquisition management systems and all applicable data requirements placed on contractors.

Other ASNs, CNO, and CMC. Are required to advise and coordinate with the ASN(FM), as appropriate, concerning needed changes to their overall information requirement control policies and procedures.

AUTHORITY AND RESPONSIBILITY FOR THE ADMINISTRATION OF THE DEPARTMENT OF THE NAVY

SECNAVINST 5400.13 (24 August 1971) describes the "composition" of DN (major elements) and indicates the areas of basic responsibility assigned.

Assignment of Functions and Responsibilities

For more specific systems acquisition functions and responsibilities, it is necessary to look to other NAVSEC Instructions, including 5000.1, 5000.16D, 5420.172B, 5430.60B, and 5430.67A. With respect to the Navy Secretariat, it partially duplicates assignments made to the Civilian Executive Assistants to SECNAV as prescribed in 5430.7k. However, in this Instruction, the general responsibilities of the ASNs are consolidated, whereas under 5430.7k, the responsibilities of each ASN are identified separately.

FUNCTIONS OF THE DEPARTMENT OF DEFENSE AND ITS MAJOR COMPONENTS

SECNAVINST 5410.85A (19 September 1970) informs Navy personnel of the roles and missions assigned to all major components of DOD by SECDEF.

Assignment of Functions and Responsibilities

This Instruction merely reprints and circulates DOD Directive 5100.1 of 31 December 1958, as revised through 17 June 1969. The DOD Directive describes the roles and missions of each major DOD component. It does not attempt to delineate or assign responsibility within a major component. It references the National Security Act of 1947, as amended. This latest revision reflects changes caused by the Reorganization Act of 1958. It is important in that it describes the organizational relationships of major components and delineates the authority of each, including the Military Departments, the JCS, and Defense Agencies.

ESTABLISHMENT OF THE DEPARTMENT OF THE NAVY SYSTEMS ACQUISITION REVIEW COUNCIL (DNSARC)

SECNAVINST 5420.172B (18 May 1976) establishes the DNSARC in order to provide a formal mechanism by which SECNAV will receive the advice and counsel of his principal advisers prior to making Navy decisions related to the systems acquisition process.

Assignment of Functions and Responsibilities

Mission. To advise SECNAV, for decisionmaking purposes, concerning need, program initiation, continuation of, or substantial changes to, systems acquisition programs.

Functions. (a) Review and appraise systems acquisition programs and management procedures. (b) Review weapon system acquisition coordinating papers on major new systems or coordinating papers on changes of significant magnitude to existing system programs. (c) Recommend action to SECNAV in programs reviewed.

Members. SECNAV, Under SEC, ASNs, CNO, CMC, and CNM.

Secretary to Council. Director, Office of Program Appraisal.

Chairman. The ASN who has primary cognizance over the program under review (see SECNAVINST 5200.30).

Input Responsibilities. (a) Review presented by CNO or CMC in conjunction Material Commands having development and acquisition responsibility. (b) Director, RDT&E/Deputy Chief of Staff RD&S provides comment on development and test plans. (c) Commander, Operational Test and Evaluation Force or comparable Marine Corps activity report on objectives and results of OPTEVAL to support decision under consideration. (d) Adviser for Resource Analysis, OASN(FM), reports on results of independent evaluation of program costs.

ASSIGNMENT OF RESPONSIBILITIES TO AND AMONG THE CIVILIAN EXECUTIVE ASSISTANTS TO THE SECRETARY OF THE NAVY

SECNAVINST 5430.7k (9 September 1975) further provides for the assignment of responsibilities at the Secretariat level in consonance with SECNAVINST 5400.13 which assigns and distributes authority and responsibility for Administration of the Navy.

Assignment of Functions and Responsibilities

General. The Secretary of the Navy retains direct control of certain matters, including the establishment of fundamental policies and the promulgation of such orders and directives as he deems necessary. This normally includes, but is not limited to, (1) policies and procedures which are essential to the effective operations of programming and program change control systems within the Department of the Navy, and (2) similar matters which are beyond the scope of the responsibility assigned to an individual member of the Department's executive administration. In addition, the Secretary exercises immediate supervision of the Office of Program Appraisal.

Assignment of Common Responsibilities. Within his area of responsibility, as indicated below, each Civilian Executive Assistant is the principal adviser and assistant to the Secretary of the Navy on the administration of the affairs of the Department of the Navy as a whole. In carrying out these duties, the Civilian Executive Assistants do so in harmony with the statutory position of the Chief of Naval Operations as "the principal naval adviser and naval executive to the Secretary on the conduct of activities of the Department of the Navy," and the responsibilities of the Chief of Naval Operations and Commandant of the Marine Corps, as prescribed in SECNAVINST 5400.13. Each is authorized and directed to act for the Secretary of the Navy throughout the Department of the Navy within his assigned area of responsibility. Under the direction, authority, and control of the Secretary of the Navy, each has the following common responsibilities within his assigned area:

(a) Review and evaluation of appropriate actions regarding program development and execution.

(b) Formulation, development, and promulgation of management policies, systems, procedures, standards, or decisions which are necessary for effective administration.

(c) Formulation of recommendations on fundamental policies, orders, or directives for promulgation by the Secretary of the Navy which are considered necessary for the effective administration of the Department and which are beyond the scope of their individual responsibilities.

Under Secretary of the Navy. Designated as the deputy and principal assistant to the Secretary of the Navy, and acts with full authority of the Secretary in the general management of the Department of the Navy.

ASN(FM). Responsible for all matters related to the financial management of the Department of the Navy, including budgeting, accounting, disbursing, financing, progress and statistical reporting, and auditing; and for all matters related to management information systems and automatic data processing systems and equipment, except for ADPE integral to a weapon system. He is also designated and appointed Comptroller of the Navy, pursuant to the provisions of section 5061 of title 10, United States Code; he is further designated Senior Automatic Data Processing Policy Official of the Department of the Navy.

ASN(I&L). Responsible for all matters related to the procurement, production, supply, distribution, alteration, maintenance, and disposal of material; all transportation and telecommunications matters; the acquisition, construction, utilization, improvements, alteration, maintenance, and disposal of real estate and facilities, including capital equipment, utilities, housing, and public quarters; printing and publications, labor relations with respect to contractors with the Department of the Navy; industrial security; the Mutual Defense Assistant Program, as related to the supplying of material, including Foreign Military Sales; and environmental matters.

ASN(R&D). Responsible for all matters related to research, development, engineering, test, and evaluation efforts within the Department of the Navy, including management of the appropriation "Research, Development, Test and Evaluation, Navy," and for oceanography, ocean engineering, and closely related matters. The Assistant Secretary of the Navy (Research and Development) is designated Chairman of the Research and Development Committee, Department of the Navy.

ESTABLISHMENT OF THE DEPARTMENT OF NAVY PROGRAM INFORMATION CENTER (NPIC)

SECNAVINST 5430.52B (8 January 1970) establishes the Department of the Navy Program Information Center (NPIC) in order to provide the Department of the Navy with a staff component to gather, correlate, and display program data required to facilitate decisions and actions by the Secretary of the Navy, the Chief of Naval Operations, and the Commandant of the Marine Corps.

Assignment of Functions and Responsibilities

NPIC. (a) Serves as focal point for Department of the Navy programming data required to support DOD PPBS. (b) Maintains and updates documents associated with Five Year Defense Plan (FYDP). (c) Correlates and staffs Department of the Navy documents required by DOD-PPBS. (d) Maintains program information to facilitate decision process. (e) Provides information as required by offices within Secretariat.

CNO and CMC. Furnish support and assistance to NPIC.

OFFICE OF PROGRAM APPRIASAL: RESPONSIBILITIES OF

SECNAVINST 5430.60B (1 August 1975) prescribes the mission and functions of the Office of Program Appriasal within the Office of SECNAV.

Assignment of Functions and Responsibilities

(1) Established as a staff office under the immediate supervision of SECNAV.

(2) Analyzes the validity, adequacy, feasibility, and balance or proposed programs to achieve the objectives of the Department of the Navy in order to provide a basis for the Secretary to assess the overall direction and priority of effort within the Department of the Navy.

(3) Conducts, or provides the guidelines for, and coordinates special studies as requested by the Secretary of the Navy and his Civilian Executive Assistants.

(4) Appraises and advises the Secretary of the Navy and his Civilian Executive Assistants on proposed documents, correspondence, and directives associated with the Planning, Programming, and Budgeting System. Presents programming matters to the Secretary of the Navy for action and recommend for Secretarial signature such correspondence and directives as are necessary for the operation of the system.

(5) Reviews and evaluates the responsiveness of the Department of the Navy programming system in meeting the needs of the Secretary, and presents recommendations thereon, as required.

(6) Analyzes and appraises other correspondence, reports, and studies relating to current and proposed programs, and presents recommendations thereon to the Secretary of the Navy and his Civilian Executive Assistants.

ASSIGNMENT OF RESPONSIBILITIES FOR RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

SECNAVINST 5430.67A (22 May 1976) assigns specific duties and responsibilities for administration of the Navy Research, Development, Test, and Evaluation Programs.

Assignment of Functions and Responsibilities

ASN(R&D). Responsible for Navy-wide policy supervision of all RDT&E wtihin DN, including management of RDT&E appropriation. Receives support and assistance from Director, RDT&E (under CNO), DC of S(R&D) Marine Corps, CND, CNR, and Project Managers of SECNAV designated projects.

CNO. (a) Responsible for executing an R&D program to ensure a balanced effort responsive to force and mission sponsor plans and operational requirements. (b) Reviews and approves development proposals submitted by ONM and prepares and issues resulting NDCPs. (c) Prepares and presents to ASN(R&D) the R&D section of Program Objectives Memorandum.

CMC, CNM, CNR, CNP, BMS. Numerous more detailed R&D functions and responsibilities are assigned (seven pages) in the instructions within the general mission prescribed for each Navy element.

MILITARY-CIVILIAN TECHNOLOGY TRANSFER AND COORPERATIVE DEVELOPMENT

SECNAVINST 5700.14 (28 February 1972) establishes a systematic and comprehensive policy for the transfer of appropriate technology developed by the Department of the Navy for national defense purposes to the civilian sector and for the identification of both military and civilian interest.

Assignment of Functions and Responsibilities

ASN(R&D). (a) Provides general guidelines in military-civilian technology transfer and cooperative development. (b) Submits an annual report to SECNAV on accomplishments.

CNO. (a) Arranges implementation. (b) Submits an annual report to ASN(R&D) on program progress.

ECONOMIC ANALYSIS AND PROGRAM EVALUATION
FOR NAVY RESOURCE MANAGEMENT

SECNAVINST 7000.14B (18 June 1975) implements DODI 7041.3, which is designed to provide a more systematic approach to decisionmaking and program evaluation by applying cost effectiveness measures and techniques in the appraisal of ongoing DOD programs.

Assignment of Functions and Responsibilities

ASN(FM). Responsible for the overall policy for economic analysis and program evaluation within Navy.

CNO and CMC. (a) Provide for use of economic analysis and program evaluation procedures within the framework of DN's PPBS. (b) Review cost and fiscal aspects of analyses of selected major weapons systems in conjunction with coordination of "development concept papers" and reviews by the Defense Systems Acquisition Review Council.

CONTRACT COST PERFORMANCE, FUND STATUS, AND
COST/SCHEDULE STATUS REPORTS

SECNAVINST 7000.15B (5 December 1974) implements DODI 7000.10, dated 8 August 1974, same subject, which establishes policies and requiring appropriate actions designed to provide early identification of problems having significant cost impact for use in making and validating management decisions.

Assignment of Functions and Responsibilities

Comptroller of the Navy. (a) Performs a one time review, for each project, of financial information requirements selected for contractual application. (b) Reviews, on case by case basis, planned changes to approved financial information requirements selected for contractual application. (c) Reviews and approves all financial information and control systems designed for general use in solicitation and for application in contractual documents.

CNO and CMC. Takes immediate action to implement provisions of this instruction and SECNAVINST 5000.1, 13 March 1972.

CONTRACTOR COST PERFORMANCE MEASUREMENT
FOR SELECTED ACQUISITIONS

SECNAVINST 7000.17A (26 July 1975) implements DODI 7000.2, which requires the application of Cost/Schedule Control Systems prescribed therein to selected systems acquisitions.

Assignment of Functions and Responsibilities

ASN(FM). (a) Formulates Navy policy concerning performance measurement. (b) Maintains surveillance over implementation. (c) Prescribes management information reports.

CNO. (a) Develops and implements procedures. (b) Ensures application of policy and procedure. (c) Conducts reviews of contractor compliance.

DEPARTMENT OF THE NAVY COST ANALYSIS PROGRAM

SECNAVINST 7000.19B (12 March 1975) promulgates policy on cost estimating throughout the Department of the Navy and assigns responsibilities for estimating, validating, and reviewing in the cost analysis program. Also implements DODD 5000.4, OSD Cost Analysis Improvement Group, within the Department of the Navy and directs accomplishment of certain cost estimating documents.

Assignment of Functions and Responsibilities

ASN(FM). (a) Provides policy for cost analysis in Navy and Marine Corps. (b) Participates in staffing of financial management and cost sections for all Department of Navy DCPs prior to DNSARC meeting on specific weapon systems.

Comptroller of the Navy. (a) Ensures Selected Acquisition Reports are consistent with estimates for major weapon systems. (b) Coordinates programs to ensure guidance for project managers in areas addressed by DODD 5000.4. (c) Monitors Navy cost analysis techniques.

CNO and CMC. (a) Maintain cost analysis groups to provide for independent cost estimates to validate program costs and for furnishing independent cost analysis. (b) Ensure realistic cost estimates for planning, programming, and budgeting of systems, acquisition, support and operations. (c) Maintain systems for documenting and updating cost estimates for weapon systems. Establish review of cost estimating performance in the acquisition process. (d) Develop cost base for cost estimating, review, and validation. (e) Develop costing methodology for total cost of acquisition and ownership of weapons systems made available to decisionmakers. (f) Maintain force costing models for considering alternative structures and changes. (g) Ensure cost analysts receive training.

SECNAV/CNO Adviser for Resource Analysis. (a) Provides review and analysis of cost, schedules, performance, and other financial management aspects of major Navy programs. (b) Represents Navy on OSD CAIG and coordinates all Navy CAIG actions outlined in DODD 5000.4. (c) Ensures DCP costing is consistent with estimates for major systems. (d) Provides information on documentation, timing, and interface with CAIG. (e) Performs cost-related tasks as directed by CNO or ASN (Financial Management).

CONTRACTOR COST DATA REPORTING (CCDR)

SECNAVINST 7000.20 (10 April 1974) implements DOD Instruction 7000.11, Contractor Cost Data Reporting (CCDR), within the Department of Navy and to assign responsibility for policy guidance, coordination, and administration in order to provide an adequate historical cost data base for managment use, including DSARC, and for other purposes.

Assignment of Functions and Responsibilities

ASN(FM). Provides policy guidelines and coordinates implementation of CCDR within Navy and Marine Corps.

CNM (under direction of CNO). (a) Implements and administers CCDR system. (b) Designates official responsible for monitoring CCDR program and submits reports. (c) Establishes focal point for Navy review of plans referenced in NMC Pamphlet NAVMAT P5241 of 5 November 1973.

CMC. Establishes focal point for implementation on programs and contracts.

SELECTED ACQUISITION REPORTS (SAR)

SECNAVINST 7700.5C (16 April 1976) implements DODI 7000.3 and provides additional guidance for the preparation, staffing, and submission of SARs for use in informing top management, Congress, and GAO of the status of major acquisition programs.

Assignment of Functions and Responsibilities

ASN(FM). Responsible for overall coordiantion, including: (a) Coordination of reviews of SARs. (b) Submission of approved reports to DOD. (c) Serves as focal point in DN for all SAR matters.

ASN(R&D). Reviews SARs with emphasis on R&D matters and technical data.

ASN(I&L). Reviews SARs with emphasis on procurement and production plans, milestones and variances, and logistics support.

Director, Office of Program Appraisal. Reviews SARs.

CNO (or CMC). Prepares SARs for designated Navy (or Marine Corps) programs.

Appendix D

SUMMARIES, IN CHART FORM, OF KEY OMB CIRCULARS AND DOD DIRECTIVES

This section includes summaries, in chart form, covering OMB Circular A-109 and DODD Directives 5000.1, 5000.2, 5000.3, and 5000.30, depicting those organizations or individuals that are assigned specific responsibility for monitoring or carrying our the functions outlined in each.

OFFICE OF MANAGEMENT AND BUDGET

Circular No. A-109, 5 April 1976
Major Systems Acquisitions

Purpose

The purpose of OMB Circular A-109 is to establish policies, and assign responsibilities for carrying them out, that will improve the effectiveness and efficiency of the acquisition process for major systems by all Federal agencies.

Impact

As related more directly to the acquisition of major defense systems, its primary thrust affects actions and decisions required in advance of Milestone I. It requires, among other things, that DOD:

1. Express needs and program objectives in mission terms, not equipment terms, and establishes a new program decision point requiring identification and definition of a specific mission need to be fulfilled.

2. Emphasize competitive exploration of alternative system design concepts in response to mission needs.

3. Relate system acquisition programs to mission needs in communicating with Congress, early in the acquisition process.

4. Establish clear lines of authority, responsibility and accountability for management.

Specific actions required include:

1. Agency head approval at key decision points.

2. Designation of an acquisition executive to integrate and unify the process and to monitor policy implementation.

3. Designation of a program manager for each major system program upon initiation of a program (Milestone 0).

More detailed policy and procedural guidelines are provided that affect key decisions and require iterative confirmation of mission needs and other factors, at successive stages of the acquisition process.

The attached chart reflects the principal requirements of the Circular with a showing of the person(s) or organization(s) that have been assigned responsibility for, or that would have cognizance over, the requirements imposed. Responsibility for

ensuring that the provisions of this Circular are followed is assigned to each agency head (SECDEF in the case of DOD). In more instances it does not specifically designate responsibilities for individual actions. We have, however, indicated what we believe to be implied or logical assignments of responsibility.

Function/Action	Responsibility Assigned
Responsibility for assuring that provisions of Circular are followed. Paragraph 3, page 1	SECDEF
Designate Acquisition Executive. Paragraph 8a, page 5	SECDEF
Integrate and unify management process for major system acquisition. Paragraph 8a, page 5.	Defense Acquisition Executive
Monitor implementation of policies and practices set forth in Circular. Paragraph 8a, page 5.	Defense Acquisition Executive
Establish clear lines of authority, responsibility and accountability for management of programs. Paragraph 6d, page 4 and Paragraph 8b, pages 5-6.	All
Preclude Management layering. Paragraph 8c, page 6.	All
Preclude nonessential reporting procedures and paperwork requirements on program managers and contractors. Paragraph 8c, page 6.	All
Designate a Program Manager for each major system acquisition program. Paragraph 8d, page 6.	Not Assigned
Provide (a)budget guidance and (b) a written charter (authority, responsibility and accountability) to the Program Manager. Paragraph 8e, page 6.	Not Assigned
Consider Agency technical management and Government laboratories for participation in mission analysis, evaluation of alternative system design concepts, and support of all development, test and evaluation effort. Paragraph 8f, page 6.	Component Head
Express needs and program objectives in mission terms and not equipment terms. Paragraph 6a, page 3.	Component Head
Place emphasis on initial activities of the acquisition process to allow competitive exploration of alternate system design concepts. Paragraph 6b, page 3.	All

Function/Action	Responsibility Assigned
Communicate with Congress early in acquisition process by relating acquisition programs to mission needs. Paragraph 6c, page 4.	SECDEF Component Head
Utilize appropriate managerial levels in decisionmaking. Paragraph 6d, page 4.	All
Obtain Agency head approval at key decision points in the acquisition process. Paragraph 6d, page 4 and Paragraph 9, page 6.	Component
Insure that each system fulfills a mission need, operates effectively and demonstrates proper levels of performance and reliability. Paragraph 7a, page 4.	All
Depend on competition between similar or differing design concepts throughout the entire acquisition process, when beneficial. Paragraph 7b, page 4	All
Ensure appropriate trade-offs among investment costs, ownership costs, schedules, and performance characteristics. Paragraph 7c, page 4.	All
Ensure adequate system test and evaluation. Paragraph 7d, page 4.	Program Manager
Accomplish system acquisition planning based on analysis of agency missions. Paragraph 7e, page 4.	All
Tailor an acquisition strategy to each program using suggested specified factors. Paragraph 7f, page 5.	Program Manager
Maintain capability to make specified predictions, reviews and assessments for use in decisionmaking by agency heads at key decision points. Paragraph 7g, page 5.	Program Manager

Function/Action	Responsibility Assigned
Make decisions at key points in the acquisition process with respect to:	
1. Identification and definition of: a specific mission need to be fulfilled; the relative priority assigned; and the general magnitude of resources that may be invested. Paragraph 9a, page 7.	SECDEF
2. Selection of competitive system design concepts to be advanced to a test demonstration phase or authorization to proceed with development of a single concept system. Paragraph 9b, page 7.	SECDEF
3. Commitment of a system to full-scale development and limited production. Paragraph 7c, page 7.	SECDEF
4. Commitment of a system to full production. Paragraph 7d, page 7.	SECDEF
Base determination of mission needs on analysis of agency mission reconciled with overall capabilities, priorities and resources. Paragraph 10a, page 7.	All
Define mission needs in terms of the mission, purpose, capability, components involved, schedule and cost objectives and operating constraints - not in equipment terms. Paragraph 10a, page 7.	All
Assign roles and responsibilities of each Component (if more than one is involved) at the time of the first key decision. Paragraph 10(b), page 7.	SECDEF
Contribute to the technology base (as required) to satisfy mission responsibilities. Applied technology-efforts oriented to systems development should be performed in response to approved mission needs. Paragraph 10(c), page 7.	Component
Explore alternative system design concepts within content of mission needs and program objectives, on a competitive basis. Generate innovation. Paragraph 11 a & b, page 8.	Program Manager
Emphasize early competitive exploration of alternatives in R&D effort. Paragraph 11d, page 8.	All

Function/Action	Responsibility Assigned
RFP's for alternative system design concepts must explain mission needs, schedules, costs, capability objectives, and operating constraints. Each offeror free to prepare own approach, unrestricted by detailed specification and standards. Paragraph 11e, pages 8 and 9.	Program Manager
Base design concept selections on review by team of experts - inside and outside responsible Component development organization. (Such reviews to consider capability to meet mission needs, program objectives, resources, trade-offs, and accomplishment record of competition). Paragraph 11f, page 9.	All
Use relatively short term contracts at planned dollar levels while identifying and exploring alternative system design concepts. Paragraph g, page 9.	Program Manager
Provide contractors with criteria to be used in evaluation and selection of the system for full-scale development and production. Paragraph h, page 9.	Program Manager
Provide contractors with relevant data on operational and support experience as tests and trade-offs are made, in developing requirements for each alternative system design concept. Paragraph i, page 9.	Program Manager
Limit the full-scale development of subsystems until it is identified as a part of a system candidate for full-scale development. Paragraph j, page 9.	Program Manager
Approve exceptions to limits on full-scale development of subsystems. Paragraph j, page 9.	SECDEF
Reaffirm mission needs and program objectives before advancing to test/demonstration phase. Paragraph 12a, page 10.	All
Authorize exceptions to requirements for demonstration of alternative design concepts, if competitive demonstration not feasible. Paragraph 12b and c , page 10.	SECDEF

Function/Action	Responsibility Assigned
Reaffirm mission needs and program objectives, after demonstration before approval of full-scale development and production. Paragraph 13a and b, page 10.	All
Conduct testing, independent of agency development and user organization, in proper environment, in advance of approval of full production. Paragraph 13b, page 10.	Program Manager
Authorize exceptions to requirement for testing in advance of full production, in appropriate cases. Paragraph 13b, page 10.	SECDEF
Selection of systems and contractors for full-scale development are to be based on specified measurements, evaluations and other criteria. Paragraph c, pages 10 and 11.	All
Monitor system tests and contractor progress. Surface actual or forecast variances for management action. Paragraph d, page 11.	Program Manager
Present budgets in accordance with law and OMB Circular A-11. Separately identify specified categories of funding. Paragraph 15a, page 11.	All
Inform Congressional Committees (Authorization and Appropriations) of agency decision to proceed with single design concept without competitive selection and demonstration. Paragraph 15b, page 11.	SECDEF
Submit specified reports to OMB. (Regs, guidelines, action plan, and approved exceptions to Circular). Paragraph 17, pages 11 and 12.	

Function/Action	Responsibility Assigned

Purpose

The revisions contained in the re-issuance of DODD 5000.1 on 18 January 1977 were designed to implement OMB Circular A-109, and otherwise (i) establish new guidelines, (ii) revise the scope of application, (iii) establish a new major decision point, and (iv) assign specific responsibilities to DOD Component Heads and Program Managers.

Impact

Principal features of the revisions that directly impact on DOD Components include the following:

1. Programs to be considered for designation as major system acquisitions are those involving an anticipated cost of $75 million or more in RDT&E costs or $300 million or more in production costs.

2. Needs and program objectives are to be expressed in mission terms, not equipment terms.

3. Establishment of a "Milestone 0" decision point at which Component Heads and SECDEF will make decisions on program initiation.

4. Submission of a Mission Element Needs Statement (MENS) to support a decision at Milestone 0.

5. New emphasis on (i) competitive exploration of alternative system design concepts and (ii) clear lines of authority, responsibility, and accountability for management.

6. Designation of program managers, with adequate authority and responsibility, early in the acquisition cycle, i.e., upon program initiation approval at Milestone 0.

The following charts contain in summary form the principal requirements of the Directive and specifies the person or organization having responsibility or cognizance over function or requirement imposed.

REVIEW OF DODD 5000.1
18 January 1977
MAJOR SYSTEM ACQUISITIONS

Function/Action	Responsibility Assigned
I. Reissuance and Purpose This directive revises DOD Directive 5000.1 dated Dec. 22, 1975 (hereby cancelled), and updates DOD policy for management of major system acquisitions. Page 1.	
II. Applicability and Scope A. Provisions of this directive apply to Office of Secretary of Defense, OJCS, Military Depts. and Defense Agencies (hereinafter referred to as "DOD Components"). The term "Services" refers to Army, Navy and Air Force. Page 2.	
B. Directive applies to programs designated by Secretary of Defense as major system acquisition programs, determined on recommendation of DOD Component Head and OSD officials System programs involving an anticipated cost of $75 million in research development and test and evaluation (RDT&E) or $300 million in production shall be considered for designation as major system acquisition. Management of programs not so designated will be guided by the provisions of this directive. Page 2.	
III. Definition of Terms, enclosure 1	
IV. Policy A. System is a sequence of phases of program and decision events directed to achievement of program objective. Initiated with approval of mission need and extends through completion of development, production and deployment or termination of program. Page 2.	
B. Successful management depends on people, defined responsibilities and authority objectives, priorities and flexible management. Responsibility shall be decentralized to Component except decisions retained by Secretary of Defense. Page 2.	

Function/Action	Responsibility Assigned
C. Components are responsible for continually analyzing mission areas and to define, develop and produce needed systems. Page 2.	Component
D. Secretary of Defense shall make decisions to initiate increase or decrease, redirect or terminate program commitments supported by formal action. Page 2	SECDEF
DOD Component Heads are accountable to Secretary of Defense to execute approved system programs and keep him informed on current status. When Component Head perceives a mission need and a new capability should be acquired, the Component Head shall submit the statement of the need to Secretary of Defense and request approval to explore alternate solutions. The request shall be documented in the Mission Element Need Statement (MENS). IV D, page 3.	Component Head
When Secretary of Defense determines mission need is essential, he will direct one or more Components to explore and develop alternate system concepts. IV D1, page 3.	SECDEF
(The above is termed "Milestone 0," Program Initiation) IV D1, page 3.	
The Defense Acquisition Executive is the focal point in OSD for system acquisition matters. E (p. 4).	Defense Acquisition Executive
Existing or commercial hardware and software will be used whenever feasible. When new items are needed, mission needs of other DOD Components and NATO standardization will be considered. F (p. 4).	
Strong and usable technology is necessary and DOD Components are responsible for technology advancements and interact for their mutual interests. G (p.5). Sources for development of technology include industry, universities and in-house organizations. H (p.5).	Component

Function/Action	Responsibility Assigned
When the Sec. of Def. approves program initiation (Milestone 0) the DOD Component shall assign the program manager who will be given assistance in establishing a strong office. The program manager will be given a charter, approved by the Component Head, outlining the manager's responsibility and authority. Where there is more than one Component involved the Sec. of Def. will designate the lead Component who will assign the program manager and the other Component will designate the deputy program manager. I (p.5).	Component Component Head SECDEF
The program manager is the concern of Component Head. Change in manager shall not be made prior to Milestone I or during full-scale engineering development prior to Milestone III except by Component Head or designee. Change in manager held to minimum and overlapped during transition. J (p.5)	Component Head
Component Head shall define line of authority and reporting channels between program manager and Component Head. Layers of line authority held to minimum. When line official above program manager makes a decision he shall document it as an official direction and be held accountable. Staffs, as functional advisors does not include authority or responsibility for decisions. K (p.6)	Component Head
Sec. of Def. Milestone decisions does not authorize commitment of funds. Action will be taken in Planning, Programming and Budget Systems (PPBS) documentation for budget approval and funding. L (p.6)	Component
Major task of program manager is to develop acquisition strategy. It shall be directed to program execution in an economical, effective and efficient manner. Changes may be made as program progresses and for assessment of program success to established goals. M (p.6)	Program Manager
Contract action is a major responsibility of program manager. Maximum use of competition, types of contracts consistent with characteristics of program risk undertaken by contractor, investment of resources, etc., is based on demonstrated achievement and risk. N (p.6)	Program Manager

Function/Action	Responsibility Assigned
Demonstration of program objectives is the pacing activity with resources allocated to insure success. Schedules and funding plans shall be prepared to accommodate program uncertainties and risk. O (p.6)	Component
Management constraints shall be established at Milestone I by Component and approved by Sec. Def. for selected factors to include alternate recommendation for demonstration and establish the basis for an alternative. If it is projected that constraints will be exceeded, the Component Head shall advise the Sec. Def. and recommend action. P (p. 6-7)	SECDEF and Component Head
Performance cost and schedules will not be formalized or considered firm prior to Milestone II decision since system is not completely defined and values remain uncertain. Resources are stated in terms of program objectives until Component Head is prepared to recommend selection of system for full-scale development. At that time cost and schedules shall be documented in the DCP. Q (p.7)	Component Head
Management thresholds shall be established at Milestone II by DOD Component and approved by Sec. Def. for performance, cost and schedule parameters will reflect variances from those established in the DCP. Threshold variance values shall be established for probable variances experienced at program completion. Same shall be done at end of each fiscal year through program completion. R (p.7)	SECDEF and Component
Program Managers are responsible to immediately report significant program exceptions, including threshold breaches, to Component Head, Sec. Def. and each line item concurrently. The Component Head shall report to Sec. Def. assessment of problem and action to be taken, and if required, make recommendations to establish new threshold values. Changes shall be approved by Sec. Def. S (p.7)	Program Manager SECDEF
Production planning, engineering and industrial preparedness shall be emphasized. Productibility considerations shall be included in production risks and actions to eliminate risks. Productibility will be considered in selection of system for development. A review shall be completed prior to release for initial production. T (p.8)	Component

Function/Action	Responsibility Assigned
Test and evaluation shall commence as early as possible. Operational effectiveness and suitability including logistic support requirement shall precede production commitments. Realistic test environment and acceptable representation of future operational system will be used in testing. U (p.8)	Component
Logistic support, reliability, and maintainability shall be consistent with program decisions. Alternate concepts shall be considered. Detail logistic planning shall be initiated with full-scale development. Adequacy of logistic plans and resources will be reviewed as part of Milestone III decision. V (p.8)	All
Reports to Sec. Def. dealing with quarterly post-Milestone III status and threshold breaches shall be referenced in the most recent SAR report. X (p.8)	Component
5000.1 immediately effective. Two copies forwarded to Defense Acquisition Officer in 120 days (after January 18, 1977). VA (p.8)	
DOD Directive 5000.2 supports 5000.1 to minimize need for Component implementation. Enclosure 2 identifies other DOD related policy documents. VB (p.9)	

DOD Directive 5000.2, 18 January 1977

Major System Acquisition Process

Purpose

The revisions contained in the reissuance of DODD 5000.2 on 18 January 1977 were designed to realign and define the decision-making processes consistent with the revisions made in DODD 5000.1 and to incorporate the essential functions of DODD 5000.26 (DSARC) into DODD 5000.2. DODD 5000.26 has been canceled.

Impact

The revision provides (1) more detailed guidelines on the required processes (Component Head reviews and approvals) and documentation (Mission Element Needs Statement and Decision Coordinating Paper), consistent with the major policy revision to DODD 5000.1. It also stresses the role of the program manager and factors to be considered and re-examined at key decision points in the acquisition process from Milestone 0 through Milestone III at the Program Manager level, Component Head level, and in the Service SARC's and DSARC.

REVIEW OF DODD 5000.2
18 January 1977
MAJOR SYSTEM ACQUISITION PROCESS

Function/Action	Responsibility Assigned
I. Purpose	
Supplements DOD Directive 5000.1 with policies and procedures essential to DOD activities in support of Secretary of Defense decision-making for major system acquisition. Page 1.	
II. Applicability and Scope	
This Directive applies to DOD activities and system programs not designated major will be guided by this Directive. Page 1.	
III. Definition	
Definition of terms used in this Directive is contained in DOD Directive 5000.1 Page 1.	
IV. Policy and Procedure	
A. General. The system acquisition process is structured to require programs progress through established decision points and phases to completion or termination. Each Milestone decision is directed to commitment of increased resources to a specific phase of program activity on basis of demonstrative achievement of approved program objectives. Pages 1 and 2.	
Exercises direction and control through four milestone decisions, also changes. IVA, pages 1 and 2.	SECDEF
Responsible for execution of programs based on Secretary of Defense decisions. IVA, page 2.	Component Head
Secretary of Defense decisions supported by review procedures and documentation as set forth in this Directive. IV A, page 2.	
(B. Advisory Councils) Defense System Acquisition Review Council (DSARC) established by Secretary of Defense to review selected programs as provided in 5000.1 IVB1, page 2.	
(Service) System Acquisition Review Council ((S)SARC), parallels DSARC, to advise Service Secretary in support of recommendations to Secretary of Defense. Reports review results to Service Secretary. IV B2, page 2.	

Function/Action	Responsibility Assigned
Service Secretary charters and chairs (S)SARC. IV B2, page 2.	Component Head
Upon request, senior OSD staff official will be assigned to (S)SARC. IV B2, page 2.	Defense Acquisition Executive
(S)SARC reports results of review to Service Secretary. IV B2, page 2.	Defense Acquisition Executive
Service Secretary makes recommendations to DSARC chairman or for selected programs to Secretary of Defense. IV B2, page 2.	Component Head
DSARC and (S)SARC shall be conducted at each of Milestone I, II, and III decisions for all programs except when waived by Secretary of Defense. IV B3, page 2.	SECDEF
(S)SARC shall review all major programs at Milestone I, II, and III. IV B3a, page 3.	Component Head
DSARC shall review those programs at Milestone I classified strategic, nuclear, joint-Service, multi-national, intelligent or communication control, and all programs at Milestone II and III unless Secretary of Defense waives review at Milestone I, II, and III. IV B3b, page 3.	SECDEF
Major system acquisitions conducted by DOD components, other than Mil Depts. shall be reviewed by DSARC. IV B3c, page 3.	Component Head
Special Council reviews shall be conducted as directed by Secretary of Defense. IV B3d, page 3.	SECDEF
Documentation for proposed and approved programs to support DSARC and (S)SARC reviews and Secretary of Defense decision-making re prescribed in 5000.2 IV C, page 3.	
Documentation waived only by Secretary of Defense of Defense Acquisition Executive. IV C, page 3.	SECDEF

Function/Action	Responsibility Assigned
The Mission Element Need Statement (MENS) shall describe the mission and justify initiation of new system acquisition. It shall be submitted to Secretary of Defense by Component Head for Milestone 0 decision. IV C1a, page 3.	Component Head
MENS shall state mission need and area in terms of tasks to be performed. Need, not to be stated in terms of capabilities and characteristics of hardware or software systems. IV C1a, page 3.	
MENS shall assess project threat through time frame the capability is required. Also identify existing DOD capability, assess need in terms of deficiency, obsolescence or technology on cost savings. IV C1b, c and d, page 3-4.	
MENS shall state constraints, requirements for NATO standardization. Constraints will constitute conditions for exploration of alternative solution, also impact of not acquiring or maintaining capability and provide a plan for competitive alternate systems through next milestone decision and plans for system's program office. IV C1e, f, g, page 4.	
Assesses project threat through time-frame capability is required. IV C1b, page 3.	Component Head
Assess the need in terms of a deficiency in the existing capability, a projected physical obsolesence, or a technological or cost savings opportunity.	
State the known constraints to apply to any acceptable solution including operational and logistics considerations, requirements for NATO standardization or interoperability, limits on the resource investment to be made, timing, etc. These constraints will constitute boundry conditions for the exploration of alternative solutions.	
Assess the impact of not acquiring or maintaining the capability.	
Provide a program plan to identify and explore competitive alternative systems extending through to the next Milestone decision. Include the planning to establish a system program office.	

Function/Action	Responsibility Assigned
Purpose of Decision Coordinating Paper (DCP) is to support DSARC and (S)SARC reviews and assist the Secretary of Defense in making Milestone I, II, and III decisions. IV 2, page 4.	
DCP prepared by DOD component for each program as summary document (20 page limit). Requires interface with Defense Acquisition Executive, OJCS and ODS. Time constraint important. IV 2a, page 4.	Component
DCP will reflect program and focus on the particular phase and Secretary of Defense decision. IV 2b, page 4.	
Secretary of Defense with Components will establish mission areas essential to Defense mission. IV d, page 4.	SECDEF
Component Heads shall establish procedures for analyzing their assigned areas of mission responsibilities to identify deficiencies and opportunities for more efficient and less costly systems. Secretary of Defense guidance provided through Defense Guidance Memo and Program Policy Guidance Memo. IV D1, pages 4-5.	Component Head
Component Heads responsible for identifying and defining mission elements needed and initiating acquisition of new systems to meet needs. IV D2, page 5.	Component Head
1. <u>(Milestone 0 - Program Initiation)</u>	
At the request of Secretary of Defense or upon making determination a mission need exists and a program is required for a new or modified system, Component Head shall submit to Secretary of Defense a mission need, recommend for approval and request authority to proceed, with alternative systems, concepts and solutions. IV D2a, page 5.	Component Head
Secretary of Defense approval required prior to commitment of funds. The action to initiate shall not constrain or impact any technology base effort. IV D2a, page 5.	SECDEF

Function/Action	Responsibility Assigned
The MENS is used to recommend initiation of new system programs and to document mission needs, also for supporting information required. Component Head shall, through the Defense Acquisition Executive, obtain comments on the MENS from OSD staff and OSCS. When completed MENS, with comments, will be forwarded to Secretary of Defense through Defense Acquisition Executive. IV E1b, page 5.	Component Head
Defense Acquisition Executive shall prepare a position paper with his assessment and attach a proposed action memo for Sec. of Defense signature to Component Head setting forth decision and direction. Position paper and MENS will be coordinated with OSD staff and OJCS and submitted to Secretary of Defense within 15 working days from date of receipt from Component Head. IV E1b, pages 5-6.	Defense Acq. Exec.
Secretary of Defense states condition for program initiation and may be directed to more than one DOD Component. In such case the decision will include condition for each Component to proceed and basis for subsequent action to select options for demonstration and validation. At this point there is a commitment only to identify and explore alternate solutions but no commitment to any specific solution. IV E1c, page 6.	SECDEF
If feasible mission needs shall be satisfied with existing military or commercial items. When new or modified development required, etc., needs of other DOD Components, NATO standardization shall be considered. Alternative systems concepts shall emphasize competition for best solution from industry, academic and Government sources, including foreign developments. IV E1d, page 6.	

Function/Action	Responsibility Assigned
Business planning should emphasize competitive alternatives to avoid costly premature commitments. Solicitation for solutions shall be in terms of mission needs and not system characteristics and provide information, including mission task and operating environment, to enable sources to respond to the need. IV E1e, page 6.	
2. (Milestone I - Demonstration and Validation) As a result of competitive identification and exploration of alternative concepts. Component Head may conclude that demonstration and validation should (1) involve several alternatives; (2) be limited to a single system concept; (3) involve alternative subsystems only and not at system level; or (4) no demonstration and proceed directly into full-scale development. ADCP shall be prepared for Milestone I decision, recommending preferred alternatives for demonstration and validation. IV E2a, page 6.	Component Head
DSARC and (S)SARC reviews completed prior to the Secretary of Defense decision shall address the program issues in making recommendations to Secretary of Defense for Milestone I decision. IV E2f, pages 6-7.	

Function/Action	Responsibility Assigned
3. (Milestone II - Full-Scale Engineering Development)	
Upon completion of demonstration and validation phase, Component shall update DCP to recommend selection of a system for full-scale development and production. The DCP shall address total program through completion. Milestone II decision shall be a commitment to continue program through development and include long-lead procurement items and limited production required to support operational test and evaluation. IV 3a, page 7.	Component
The DSARC and (S)SARC reviews, to be completed prior to Secretary of Defense decision, shall address program issues in making recommendations to Secretary of Defense for Milestone II decision. IV 3b, page 7.	Defense Acq. Exec.
4. (Milestone III - Production and Deployment)	
Upon completion of engineering development phase, including test and evaluation leading to Milestone III production and deployment decision, Component shall update the DCP to recommend commitment to production and deployment of the system. IV E4a, page 7.	Component
The DSARC and (S)SARC reviews to be completed prior to Secretary of Defense decision shall address the program issues in making recommendations to Secretary of Defense for Milestone III decision. IV E4b, page 7.	Defense Acq. Exec.
(F. Other Program Management Considerations)	
Component shall support the program manager to establish strong office. Because of program management task, all DOD authorities shall ensure program manager is not diverted from primary goal with unnecessary reports, reviews and briefings. Program managers involvement in other actions shall be restricted to essential program execution. IV F1, pages 7-8.	Component

Function/Action	Responsibility Assigned
A major responsibility of program manager is to make trade-off decisions in system capability, cost, schedule and risk within ranges limited by threshold values. Program Management includes responsibility to determine whether a program should be continued or terminated and to recommend appropriate action. F 2, page 8.	Program Manager
Subsystems selection shall not be fully developed until program has been approved for full-scale development. Sec. of Def. may authorize exceptions if long-lead considerations require earlier development. Exceptions shall be reported to OMB by Defense Acquisition Executive. F3, page 8.	SECDEF Defense Acq. Exec.
Prior to approval of a MENS by Sec. of Def., and completion of action required by the Planning, Programming and Budgeting System (PPBS), Component Heads are not authorized to commit funds to identification and exploration of alternate system concepts to meet mission need. F4, page 8.	
In selected cases action to initiate a new major system program will require immediate initiation to identify alternative solutions prior to completion of the normal budget cycle. In such urgent cases, conditions dictating the urgency will be submitted to the Sec. Def., with initial funding required and funding sources. F4, page 8.	SECDEF
Sec. Def. decisions at Milestones I, II, and III as reflected in MENS or DCP are to be included in FYDP documentation at the next following Program Objectives Memorandum (POM) submission or Program/Budget decision submission depending on <u>timing of DCP</u> action. F5, page 8.	
When a PPBS document offers an alternative solution that differs from Sec. Def. decision, as stated in MENS or DCP, the difference will be noted in PPBS and the document submitted to Defense Acquisition Executive for coordination. Approved changes to a DCP through PPBS action shall be in the DCP by Component and distributed within 30 days. Changes to a DCP will be reflected by complete revision of DCP or by page changes. DCP changes will be distributed with cover sheet listing changes. F5, page 8.	Defense Acq. Exec.

Function/Action	Responsibility Assigned
Program manager shall develop acquisition strategy, tailored to particular program following Milestone 0 approval. Limited at first, it will be expanded and refined as program progresses. Competition shall be major factor to achieve technical innovations, reduce risk, and cost effective management. Effort shall be made to prevent expenditures of resources to reach unnecessary performance and schedules. Relationships shall be established between need, urgency, risk and worth to allow trade-offs between capability, cost and schedule. Program managers shall take actions in risk areas, make trade-offs to achieve best balance. F6, pages 8-9.	Program Manager
Cost of acquisition and ownership shall be established as separate cost elements and translated into design-to-cost and life cycle cost requirements for selection for full-scale engineering development. Program actions shall be evaluated against these requirements the same as evaluation of technical requirements. F7, page 9.	Component
Competitive demonstrations are conducted to validate design concepts and provide a basis for selection of a system for full-scale development and subsequent production. Demonstrations should be conducted with full-scale prototypes in operating environments when practical. When demonstrations at system level are not practical, competitive prototype demonstrations of critical sub-systems shall be considered in the same manner as systems. Contractors shall be required to submit firm proposals for full-scale development and initial production upon completion of competitive demonstration and shall be provided with factors, criteria and conditions to be used by DOD in evaluation and selection of a system for full development. Specifications and standards and a contract data list shall be identified and tailored by contractors for application to system proposals for full scale development on basis of the demonstration and validation results. F 8, page 9.	Component

Function/Action	Responsibility Assigned
Contract types shall be consistent with system characteristics with emphasis on risk and uncertainty to contractor and government. Cost type contracts preferred when development is major task and risks remain. Fixed price contracts should be used when risk resolved and development successfully demonstrated. Total package concepts and firm or ceiling price options for quality production shall not be used in development contracts except price options may be included for limited quantities to support the OT and E needs when acceptable cost estimates are available. F9, pages 9-10.	Component
Letter contracts and undefinitized contract changes shall be avoided. When changes benefit the government or are essential for safety or to achieve mission need, changes shall be contractually priced or subject to ceiling price before authorization. F 10, page 10.	Component
Management information systems shall be limited to program information essential for management control. Information shall be provided from same data base used by contractors in program management. Traceability of succeeding cost estimates and factors including escalation shall be maintained. Realistic work breakdown structure shall be developed in each program as a framework for planning and assignment of responsibilities, control and reporting progress and used as a data base in making future cost estimates of new Defense systems. F 11, page 10.	Component

REVIEW OF DODD 5000.2 (Encl. 1)
MAJOR SYSTEM ACQUISITION PROCESS

Defense System Acquisition Review Council (DSARC)

Charter

I. DSARC members

Defense Acquisition Executive (Chairman)
Director of Defense Research and Engineering
Assistant Secretary of Defense (Installations and Logistics)
Assistant Secretary of Defense (Comptroller)
Assistant Secretary of Defense (Intelligence)
Director of Telecommunications and Command and Control System
Other OSD staff principals essential to program under review

II. Participants and Advisors

Chairman, JCS shall have senior representative to participate in an advisory role and provide the Chairman's position on each system. The Deputy DDR&E (T&E) shall participate in reviews and report to DSARC and Secretary of Defense on test planning and results. The Chairman of Cost Analysis Improvement Group (CAIG) shall report on DOD Component's cost estimates. The Component Head shall participate or have a representation. The Chairman shall determine other participation needed.

III. DSARC Secretary

The Defense Acquisition Executive shall designate the DSARC Executive Secretary to be responsible for administrative support to the DSARC including schedules, essential information to participants, minutes of proceedings, etc.

IV. DSARC Operations

A. The DSARC shall review those system programs at Milestone I that are classified as strategic, nuclear, joint-Service, multi-national, intelligence or communications and command and control systems, and all programs at Milestone II and III except when waived by the Secretary of Defense. The DSARC reviews shall be convened by the Chairman established during DCP coordination.

B. The completed "For Coordination" draft DCP shall be forwarded by the Component Head to the Defense Acquisition Executive and DSARC members and participants 15 working days prior to schedule review. The ODDR&E (T&E) test and evaluation report shall be provided the Defense Acquisition Executive 2 working days prior to review meeting and the Chairman of the CAIG shall provide cost estimates by 5 working days prior to meeting.

C. The Defense Acquisition Executive shall advise DOD Component Head and other participants of any special presentations required to SCARC.

D. Following completion of each DSARC action the DSARC report consisting of DCP recommendations and any dissenting positions shall be signed by each member and forwarded to Secretary of Defense by the Chairman.

Function/Action	Responsibility Assigned
DECISION COORDINATING PAPER (DCP) CONTENT AND PROCESSING I. DCP Purpose To support DSARC and (S)SARC reviews and Secretary of Defense decision-making process at Milestone I, II and III. DCP is principal document for recording program information and Secretary of Defense decisions directing DOD Component Heads in execution of programs. Page 1. II. DCP Content The form and content of the DCP shall focus on the particular decision and program phase the DCP supports. Depending on decision point, the DCP will include: Page 1. A. Mission Element Need Statements (MENS) approved at Milestone 0 (as an annex) B. Current information updating MENS. Page 1. C. Description of alternative programs, including anticipated performance information. Page 1. D. Summary of acquisition strategy Page 1. E. Short- and long-term business planning information. Page 1. F. Program structure and management plan to include classification guidance. Page 1. G. Areas of program uncertainty but excluding technical risks, and probable impact. Page 1. H. Each DCP for Milestone I and II shall contain a Technology Assessment Annex (TAA) that will identify any area of technological risk remaining in programs and describe plans for addressing risks. The TAA, one page in length, shall be prepared by program manager, assisted by laboratory selected for this purpose and identified in TAA. Page 1.	Program Manager

Function/Action	Responsibility Assigned
I. A resources annex for each program alternative which shall include Cost, Production and Inventory/Objective Data in same format as Congressional sheets (Reference DOD Manual 7110-10M) Page 2.	
J. One page logistics annex for Milestone I, II and III.	
K. DCP for Milestone I shall contain firm program management constraints for program factors for each alternative as basis for continuing the demonstration and validation effort for alternative. Page 2.	
L. DCP for Milestone II and III shall contain program schedule, cost and performance information. Program thresholds shall be established for selection performance, cost and schedule factors representing acceptable, projected variances at program completion and fiscal year thresholds for the same cost and schedule factors to represent acceptable variances at the end of each fiscal year. Page 2.	
M. Test and evaluation planning and status. (Reference DOD Dir. 5000.3) Page 2.	
O. DSARC and (S)SARC results and commendations. Page 2.	
P. Secretary of Defense decisions and directions. Page 2	
III. DCP Processing and Coordination	
The Component Head (or Under Secretaries of Military Depts.) and the Defense Acquisition Executives shall provide focus for processing and coordinating the DCP. The DSARC and (S)SARC program reviews shall not be convened until the processing of DCP has been completed. Page 2.	Component Head Defense Acquisition Executive
A. The DOD Component shall initiate the DCP processing and shall prepare the DCP based on an approved DCP outline. Page 2.	Component Head

Function/Action	Responsibility Assigned
The DCP outline shall be prepared by a joint OSD-Component staff planning meeting requested by the Component four to six months prior to target date for each of Milestones I, II, and III decisions. Page 2.	Defense Acquisition Executive
The meeting will be sheduled through Defense Acquisition Executive, chaired by his representative and attended by representatives of DSARC members, OJCS, ODDR&E(T&E) and CAIG. Component shall prepare a proposed DCP outline for the meeting Page 2.	
The meeting shall (1) establish the date for (S)SARC review; (2) for DSARC review to follow S(SARC) or specify a DSARC review is not to be conducted; (3) identify the program alternatives to be considered; (4) identify the specific program issues to be included; (5) identify the program information to be presented; and (6) establish a schedule of events and actions to be completed prior to DSARC and (S)SARC reviews. Page 3.	
B. DOD Component shall prepare a DCP on the basis of approved outline. This DCP shall "For Comment" draft for use in developing program coordination, comment and issues. The draft shall be forwarded to Defense Acquisition Executive 2 months prior to (S)SARC review. Page 3.	Component Head
The Defense Acquisition Executive shall complete the coordination action with OSD staff in conjunction with Component and take action to resolve issues. An issue shall not be included in the DCP unless not resolved at level of concerned OSD staff principal, the chairman JCS and Component Head. The DCP comments and the remaining issues shall be forwarded to Component Head by Defense Acquisition Executive within 15 days following receipt of DCP from Component. Page 3.	Defense Acquisition Executive
C. The Component shall prepare a second draft DCP incorporating the comments received on the "For Comment" DCP. This DCP shall be identified as the "For Coordination" draft and distributed to the DSARC and (S)SARC members, the chairman JSC, the Department DDR&E(T&E) and the Chairman of the CAIG by 15 days prior to schedules Council review. Page 3.	Component Head

Function/Action	Responsibility Assigned
IV. DSARC and (S)SARC Milestone Reviews The DSARC and (S)SARC shall address the following program issues in making recommenations to Secretary of Defense at Milestones I, II and III decision points. Page 3. A. Milestone I - Program Initiation 1. The mission element task to be accomplished is reaffirmed to be essential. 2. The updated threat assessment. 3. The alternative system design concepts reflect the technology base and provide an acceptable competitive environment. 4. Foreign developments have been considered. 5. Alternatives recommended for demonstration and validation meet mission element needs. 6. The established program constraints remain valid. 7. The projected resource investment for selected alternatives and other characteristics related to the alternatives are consistent with stated constraints. 8. Operational and logistical considerations are adequate. 9. Use of available subsystems and existing military and commercial hardware and software is adeuqately considered. 10. Acquisition strategy is complete, effectively integrates the program technical, business and management elements and supports the achievement of program goals and objectives. 11. Short- and long-term business planning effectively supports the acquisition strategy. 12. Producibility and areas of production risk have been adequately considered. 13. Joint-Services, interoperability and multi-national considerations are adequately treated in the planning. 14. NATO standardization and interoperability requirements have been adequately considered. 15. Risk and uncertainty areas are identified and adequately treated in the planning.	

Function/Action	Responsibility Assigned
16. Environmental considerations are adequate.	
17. Planning and schedules for preparation of the Test and Evaluation Master Plan (TEMP) is adequate.	
18. The program management structure. Pages 3, 4, and 5.	
B. Milestone II - Full-Scale Engineering Development	
1. The mission element task to be accomplished is reaffirmed and the threat updated.	
2. The system selected meets the mission element needs, is cost-effective and is acceptable within stated constraints	
3. NATO standardization is interoperability requirements are satisfied.	
4. The demonstration and validation results support the system recommended.	
5. System trade-offs have produced the most effective balance in cost, performance and schedule including operational and logistical considerations.	
6. Uncertainties and risks have been identified and are acceptable; planning to resolve the remaining uncertainties and risks is adequate. Realistic fall-back actions and alternatives have been established.	
7. The acquisition strategy has been updated, effectively supports achievement of program objectives and is being executed in the conduct of program management.	
8. Short- and long-term business planning supports the strategy. Contract types are consistent with program characteristics, risk, uncertainty and strategy.	
9. Design-to-cost and life cycle cost requirements are realistic and effective in achieving cost objectives.	
10. Cost, performance and schedule estimates and related thresholds have been thoroughly reviewed, are well defined and consistent with risk involved. These values shall be established as firm estimates. (Ref DOD Dir. 5000.4)	
11. Action to submit the initial Selected Acquisition Report (SAR) is complete (Ref. DOD Instruction 7000.3).	
12. Planning for selection of major subsystems is clearly stated, provides for sustained completion to maximum extent feasible and accepts the use of existing military and commercial hardware and software when appropriate foreign developments have been considered.	

Function/Action	Responsibility Assigned
13. Demonstration and validation testing and evaluations have been completed and results support the recommendations.	
14. Electronic/infrared/optical counter-countermeasure performance requirements have been identified (Ref DOD Dir 4600.3)	
15. Producibility considerations and areas of production risks have been reviewed and the results found acceptable.	
16. Requirements have been established for long-lead procurement items and initial limited production to support operational test and evaluation needs, for the verification of production engineering and design maturity and to establish the production base.	
17. The Test and Evaluation Master Plan (TEMP) identifies and integrates the testing and evaluation to be accomplished prior to Milestone II and III program decision points (Ref DOD Dir 5000.3).	
18. Requisites for Milestone III production and deployment decision including operational and logistical support have been established.	
19. The program management structure and plan are sound and adequately supported. Pages 5 and 6.	
C. Milestone III - Production and Deployment	
1. The mission element task to be accomplished is reaffirmed and the threat updated.	
2. The development has progressed satisfactorily and the initial operating test and evaluation results support a decision to proceed with production and deployment.	
3. The acquisition strategy has been updated and is being executed.	
4. Business planning supports the acquisition strategy and provides flexibility for production rates and quantities when options are used.	
5. Schedule and cost estimates are realistic and acceptable including support and operating costs. (Ref DOD Dir. 5000.4).	
6. Design to cost and life cycle cost requirements are realistic and effective in achieving cost objectives.	
7. The system is cost-effective and affordable and remains the best alternative.	

Function/Action	Responsibility Assigned
8. Trade-offs have been made to balance cost, schedule performance effectively.	
9. Program and fiscal year thresholds are reaffirmed.	
10. Production quantity requirements are valid.	
11. Issues concerning production, producibility, quality assurance and facilities are identified and managed satisfactorily.	
12. The program management structure and plan are sound and adequately supported.	
13. Major problems are identified and satisfactorily resolved.	
14. NATO standardization and interoperability requirements have been satisfied.	
15. Requisites for future production decisions have been defined and competition has been considered through second source, etc.	
16. Planning for deployment is adequate including manpower and training logistics readiness and operational considerations including integration with existing operational systems.	
17. Assessment of support subsystems to meet needs of initial operational units and planning to meet any deficiencies.	
18. Production readiness review completed, contractor has adequate capability to manufacture the system. Pages 6 and 7.	
V. Post (S)SARC and DSARC DCP Action	
A. DSARC Action. Chairman, within 15 days after review, shall forward DSARC report to Secretary of Defense containing statement of the issue and recommendation of DSARC including dissenting positions. Chairman shall prepare a proposed DCP action memo for Secretary of Defense signature directed to Component Head stating Secretary of Defense decision and direction. Chairman shall coordinate the action memo with DSARC members, Chairman JC's and Deputy DDR&D(T&E) and the CAIG Chairman. A draft of the action memo shall be forwarded to Component Head for comment. Pages 7 and 8.	Defense Acquisition Executive

Function/Action	Responsibility Assigned
B. (S)SARC Action. Within 15 days following a (S)SARC review, Service Secretary shall forward DCP including his recommendations and (S)SARC results to Secretary of Defense through Defense Acquisition Executive.	Component Head
When a DSARC review is scheduled to follow the (S)SARC review, the DCP including the (S)SARC results shall be reviewed by the DSARC. Page 8.	Defense Acquisition Executive
When a DSARC is not scheduled, the Defense Acquisition Executive shall make his assessment of the DCP and forward his recommendation, within 15 days to Secretary of Defense after coordination with the OSD staff and the OJCS. Page 8.	Defense Acquisition Executive
C. The Secretary of Defense decision is consummated when he signs the DCP and issues the action memorandum. The Component Head shall take action within 30 days to revise the DCPP, incorporating the Secretary of Defense direction and to distribute the DCP.	Component Head

Purpose

To establish policy for the conduct of test and evaluation (T&E) by the Military Departments and Defense Agencies in the acquisition of defense systems.

Impact

The issuance of OMB Circular A-109, and re-issuances of DODD 5000.1 and 5000.2 do not require any basic changes in T&E policy as reflected in this Directive. However, in the review of selected Navy implementation documents below SECNAV level (e.g., OPNAV Instruction 3960.10), it was noted that modifications will be necessary where references have been made to obsolete portions of DODD 5000.1, such as the thresholds for consideration of designating particular programs as major systems acquisitions.

Function/Action	Responsibility Assigned
Commence test and evaluation as early as possible and conduct throughout system acquisition process to reduce risk and assist in assessing worth. IV A1, page 2	Unassigned
Acquisition schedules are to be based, inter alia, upon accomplishing test and evaluation milestones prior to buy decisions that commit significant added resources. IV A2, page 2	Unassigned
DT&E shall include testing of components, subsystems and prototype or preproduction models of the entire system, including compatibility and interoperability with existing or planned equipment and systems. IV B1, page 2.	Unassigned
DT&E shall be adequate during full-scale development and prior to the first major production decision to assure completeness of engineering, that significant problems have been identified, and that solutions are in hand. IV B3, page 2.	Unassigned
Joint DT&E or OT&E may be required where interface with another Component. Paragraph IV B4, page 3 and IV C6, page 4.	Unassigned
OT&E will be accomplished in realistic environment by operational and support personnel of type and qualification of users. C, page 3.	Unassigned
Conduct OT&E in phases keyed to appropriate decision points. Paragraph C, page 3.	Unassigned
OT&E must be continued during and after the production period to assist in evaluation of effectiveness, etc., and to assure retention of effectiveness in new environment or against new threat. C, page 3.	Unassigned
OT&E responsibility will be assigned to a single major field agency, separate and distinct from the developing/procuring command and using command. IV C1, page 3	Major field agency
The major field agency responsible for systems OT&E will submit reports and recommendations directly to its Military Service Chief or Defense Agency Director. IV C1, a and b, page 3.	Major field agency

Function/Action	Responsibility Assigned
Establish a full time focal point organization in Component Hdq. to assist OT&E field agency and to inform Military Service Chief or Defense Agency Director as to needs and accomplishments. IV C2, page 4.	Major field agency
For major ships of a class:	
a. DT&E and OT&E will be accomplished on the lead ships as early as practical to reduce risk and minimize need for modification to follow ships. D, page 4 and 5.	Component
b. Combat system test installations will be constructed as warranted. D1, page 5.	Component
c. Adequate initial DT&E and OT&E of the integration of certain subsystems will be accomplished prior to the first major production decision on follow ships. IV, D1, page 5.	Component
d. First generation subsystems should be approved for Service use prior to initiating integrated operational testing. IV D1, page 5.	Component
e. For new ships incorporating improved technological advancements, a prototype will be employed. Prototype T&D will be completed prior to the first major production decision on follow ships. IV D2, page 5.	Component
f. Prototyping of Navy nuclear propulsion plants will be accomplished in accordance with methods used by ERDA. IV D3, page 5.	Component
g. For all new ship classes, continuing OT&E will be conducted at sea as early as possible. IV D4, page 5	Component
h. Initial and subsequent DCP's will describe subsystems to be included in any test site or test prototype. schedules to accomplish T&E, and any exceptions to policies under IV D, 5, page 5.	Component

Function/Action	Responsibility Assigned
For one-of-a-kind systems (or very few over an extended period) the principles of DT&E of Components, subsystems, and prototype or first production model of the entire system will apply. OT&E will be conducted as early as possible. IV E, pages 5 and 6.	Component
Necessary production acceptance T&E will be accomplished throughout the production phase. IV F.	Component
A T&E master plan (TEMP) will be prepared as early as possible and prior to initiation of Full-Scale Development, and kept current thereafter, to identify and integrate all T&E effort and schedules to insure accomplishment prior to key decision points. Any changes in test plan, after approval, will be documented with reasons and the approving authority. IV G and H, page 6.	Component
DSARC and DCP Procedures for T&E	
a. The DCP for use at the time of the PID (Milestone I) will identify critical questions and areas of risk to be resolved by T&E, and a summary of test objectives, schedules, and milestones. IV I1, page 6.	Unassigned
b. When initiation of Full-Scale Development is proposed, the revised DCP will give: results of T&E accomplished; updated statement of critical questions and areas of risk still needing test to resolve; and test plans and milestones. IV I2, page 6.	Unassigned
c. The DSARC will, prior to the first major production decision, provide to Secretary of Defense its assessment of the adequacy of test results to support decision to proceed with major production and the adequacy and plans for future testing. IV Is, page 6.	Unassigned
d. In case of DCP revisions and DSARC Reviews subsequent to the first major production decision, updated assessments of T&E results and plans for future T&E will be presented. IV	Unassigned
For major programs, any waivers of accomplishment of T&E set forth in an approved DCP may be granted only by Secretary of Defense. V a, page 7.	SECDEF

Function/Action	Responsibility Assigned
For other major programs, T&E requirements in the Military Departments may be waived only by the Under Secretary or an Assistant Secretary designated by the Secretary. For Defense Agencies, waivers may be granted only by the Director. DOD Components will designate minimum thresholds for these purposes. V B, page 7.	Under Secretary or Asst. Secy. or Director
The Deputy Director of Defense Research and Engineering, Test and Evaluation (DD(T&E)) is assigned OSD responsibility in T&E matters that include: VII A thru H, pages 7 and 8)	DD(T&E)
a. Reviewing T&E policy and procedures.	DD(T&E)
b. Monitoring T&E planned and conducted.	DD(T&E)
c. Assisting in preparing and/or reviewing T&E sections of DCP's and PM's.	DD)T&E)
d. Reporting to DSARC and WMCC System Council, as appropriate and to Secretary of Defense at milestone decision points on T&E matters.	DD(T&E)
e. Monitoring, initiating and coordinating joint testing (more than one DOD Component)	DD(T&E)
f. Coordinating and reviewing T&E of foreign systems.	DD(T&E)
g. Fulfilling OSD responsiblity for the National and major Service test facilities.	DD(T&E)
h. Monitoring T&E (to the extent required to relate to system acquisition:	DD(T&E)
(i) Directed by JCS related to SIOP operational factors.	
(ii) Conducted for development or investigation of organizational or doctrinal concepts.	

DOD Directive 5000.30
20 August 1976
DEFENSE ACQUISITION EXECUTIVE

This directive implements direction contained in OMB Circular A109, Major Systems Acquisition, that each agency (i.e., DOD) that acquires major systems "designate an acquisition executive to integrate and unify the management process for the agencies major system acquisitions." Within OSD the Defense Acquisition Executive is the single principal advisor and staff assistant to the Secretary of Defense for the acquisition of defense systems and equipment. He is to "serve as the permanent Chairman of the Defense Systems Acquisition Review Council (DSARC) and has authority to approve/disapprove the format and content of Decision Coordinating Papers (DCPs). He monitors the implementation of system acquisition policies and participates in DOD acquisition planning.

More specific responsibilities, authority and functions to be performed are as follows:

FUNCTIONS OF THE DEFENSE ACQUISITION EXECUTIVE: Under the direction, authority, and control of Secretary of Defense, and in coordination with the functional assistant Secretaries of Defense.

Integrate and unify the management process, policies, and procedures for defense system acquisition.

Monitor implementation of the policies and practices in Circular A109 and those of the Secretary of Defense.

Coordinate the development of acquisition investment planning:

To assure the continuity of decisions among the conceptual, development, production, and operational phases.

With the Defense Planning and Programming Guidance (DPPG), the Planning and Programming Guidance Memorandum (PPGM), and the Planning, Programming, Budgeting System (PPBS).

Chair DSARC.

Strengthen the basis of Secretary of Defense DSARC decisions by assuring requirements and viewpoints of all functional areas involved are given full consideration in DSARC deliberations.

Approve/disapprove format and content of DCPs.

Advise Secretary of Defense on timing of program manager assignments, adequacy of program management structure and quality of program management achieved.

Perform other duties as assigned.

RELATIONSHIPS OF THE DEFENSE ACQUISITION EXECUTIVE:

Coordinate actions of the various OSD offices.

Coordinate actions with Military Departments and Defense Agencies having collateral and related functions.

Maintain active liaison for exchange of information with Military Departments and Defense Agencies.

Consult with JCS on interaction of system acquisition and operational strategy.

Maintain active liaison with OFPP.

Encourage active liaison outside of DOD.

AUTHORITIES OF DEFENSE ACQUISITION EXECUTIVE:

Issue instructions and one-time directive-type memoranda, appropriate to carry out policies approved by Secretary of Defense, in accordance with the DOD Directive System.

Obtain such reports and information from the Military Departments as are necessary, consistent with the policies for management and control of information requirements.

Appendix E1

LISTING OF DOD DIRECTIVES AND INSTRUCTIONS

This section provides a listing of those DOD Directives and Instructions of primary concern that have been reviewed, as well as others referenced in DODD 5000.1.

DOD Directives and Instructions Related to the Systems Acquisition Process

A. Primary Concern

Document	Date	Subject
DOD Directive 5000.1	18 January 1977	Major Systems Acquisitions
DOD Directive 5000.2	18 January 1977	Major Systems Acquisition Process
DOD Directive 5000.3	19 January 1973	Test and Evaluation
DOD Directive 5000.30	20 August 1976	Defense Acquisition Executive

B. Others Referred in DODD 5000.1

Document	Subject
DOD Instruction 4005.3	Industrial Preparedness Production Planning Procedures
DOD Manual 4005.M	Industrial Preparedness Planning Manual
DOD Directive 4100.35	Logistic Support
DOD Directive 4105.62	Proposal Evaluation and Source Selection
DOD Directive 4120.3	Standardization
DOD Directive 4155.3	Quality Assurance
DOD Instruction 4200.15	Manufacturing Technology
DOD Instruction 4400.1	Priorities and Allocations
DOD Directive C4600.3	Electronic Counter-Countermeasures (ECCM)
DOD Directive 5000.4	Cost Analysis Improvement Group
DOD Directive 5000.23	Management Careers, System Acquisition
DOD Directive 5000.28	Design to Cost
DOD Instruction 5010.8	Value Engineering
DOD Instruction 5010.12	Data, Acquisition of
DOD Instruction 5010.29	Data, Acquisition of
DOD Directive 5100.40	Responsibility for the Administration of the DOD Automatic Data Processing Program
DOD Directive 6015.1	Environmental Considerations in DOD Actions
DOD Directive 7000.1	Resource Management Systems of the DOD
DOD Instruction 7000.2	Cost/Schedule Control System
DOD Instruction 7000.3	Selected Acquisition Report (S
DOD Instruction 7000.6	Management System Control
DOD Instruction 7045.7	The Planning, Programming and Budgeting System
DOD Manual 7110-1-M	DOD Budget Guidance Manual
ASPR	Armed Services Procurement Regulations

Appendix E2

LISTING OF SECNAV INSTRUCTIONS

This section provides a listing of SECNAV Instructions related to the systems acquisition process that have been reviewed.

SECNAV Instructions Related to the Systems Acquisition Process

No.	Date	Category*	Subject
3900.21	2-4-63	I	Assignment of functions for the defense scientific and technical information program
3900.36A	6-17-70	II	Reliability and maintainability (RM) of naval material; policy for
3900.37A	10-27-72	I	Rapid development capability for warfare systems
3900.40	8-26-72	II	Establishment of policy for, and technical evaluation, of independent research and development program
3960.4	10-12-73	II	Automatic test, monitoring, and diagnostic systems and equipment, policy and responsibility for
4000.5B	1-8-71	II	Preparation of material planning studies for principal items of materiel
4000.29A	1-13-71	I	Development of integrated logistic support for systems/equipments
4120.3C	8-9-73	II	Department of Defense standardization program
4350.8B	7-1-76	II	Engineering and technical services; assignment of responsibility for
4355.14	8-7-72	II	Quality Assurance
4858.2B	12-26-72	II	Value engineering program; Department of the Navy
5000.1	3-13-72	I	System acquisition in the Department of the Navy
5000.16D	1-8-70	I	Policy, roles, and responsibilities within the Department of the Navy for implementation of the DOD planning, programming, and budgeting system (PPBS)
5200.26	9-25-70	II	Department of the Navy automatic data processing program
5200.30	8-27-75	I	Management of decision coordinating papers (DCPS) and program memoranda (PMS) within the Department of the Navy (DN)
5260.1C	10-20-76	I	Information requirements control
5400.13	8-24-71	I	Assignment and distribution of authority and responsibility for the administration of the Department of the Navy
5410.85A	9-19-69	I	Functions of the Department of Defense and its major components
5420.172B	6-9-76	I	Establishment of the Department of the Navy systems acquisition review council (DNSARC)

No.	Date	Category*	Subject
5430.7K	9-9-75	I	Assignment of responsibilities to and among the civilian executive assistants to the Secretary of the Navy
5430.52B	1-8-70	I	Establishment of the Navy Program Information Center
5430.60B	8-1-75	I	Office of program appraisal; responsibilities of
5430.67A	5-22-75	I	Assignment of responsibilities for research, development, test and evaluation
5700.14	2-28-72	I	Military-civilian technology transfer and cooperative development
7000.14B	6-18-75	I	Economic analysis and program evaluation for Navy resources management
7000.15B	12-5-74	I	Contract cost performance, funds status and cost/schedule status reports
7000.17B	7-26-72	I	Contractor cost performance measurement for selected acquisitions
7000.19B	3-12-75	I	Department of the Navy cost analysis program
7000.20	4-10-74	II	Contractor Cost Data Reporting
7700.5C	4-16-76	I	Selected acquisition report (SAR)

* Category I. Significant and directly pertinent to the systems acquisition process and assigned responsibilities.

Category II. Related but not particularly significant in review and decision making process.

PRINCIPAL INTERVIEWS

Name	Affiliation
Babione, D.	OSD (I&L)
Balzhiser, R., Col.	DCS (RD&A) USA
Bando, E.	HQ AF System Command, USAF
Bromberg, J.	Consultant to ASN
Constant, A.	Naval Sea Systems Command
Cooper, R.	Ketron, Inc., Consultant
Dietrich, F.	Office of Federal Procurement Policy
Dunbar, J., Col.	OSAF(R&D) USAF
Esposito, A.	OSD(DDR&E) Consultant
Fettig, L.	Office of Federal Procurement Policy
Ford, H., Lt. Col.	DCS (RD&A) USA
Gray, W., Capt.	Office of Chief of Naval Operations
Heerwagon, D., Capt.	OSD (DDR&E)
Hunter, W.	Office of Federal Procurement Policy
Jones, C.	Naval Air Systems Command
Kaplan, J.	Naval Sea Systems Command
Kirkland, T., III, Cdr.	Program Planning Office, USN
Kirksey, R., R/Adm.	DCNO (AW), USN
May, Jr., Lt. Col.	DCS (RD&A), USA
Morhard, W.	Naval Air Systems Command
Mulquin, J.	Naval Air Systems Command
Orris, F., Capt.	Office of RDT&E, USN
O'Shaughnessy, R., Capt.	HQ NAVMAT 015
Peterson, E.	DCS(R&D), USAF
Peterson, J.	PM1 Program Evaluation
Piersall, C., Capt.	Naval Air Systems Command
Platt, S., Capt.	Naval Air Systems Command
Reilinger, E.	PM1 Program Evaluation
Roback, H.	Commission on Paperwork, U.S. Congress
Rogers, D., Cdr.	BUPERS, USN
Seeley, J., Capt.	Program Planning Office, USN
Shelton, D., R/Adm	Office of RDT&E, USN
Shipley, H.	Office of Federal Procurement Policy
Skarlatos, P., Capt.	DCNO Plans, Policy & Operation, USN
Steel, C., Capt.	HQ NAVMAT 08C3
Stone, H.	Office of RDT&E, USN
Sutherland, C.	OSD (DDR&E)
Timmeney, B.	Naval Air Systems Command
Trask, W., Capt.	DCS (R&D), USAF
Uncles, J.	Office of RDT&E, USN
Wertheim,	Deputy Under Secreatry of the Navy
Williams, B.	DCNO Plans, Policy and Operations, USN
Williamson, W.	Office of Program Appraisal
Zable, J.	Office of RDT&E, USN

Appendix E4

REFERENCE MATERIAL

DOD Directives and Instructions

Document	Subject
DOD Instruction 4005.3	Industrial Preparedness Production Planning Procedures
DOD Manual 4005.M	Industrial Preparedness Planning Manual
DOD Directive 4100.35	Logistic Support
DOD Directive 4105.62	Proposal Evaluation and Source Selection
DOD Directive 4120.3	Standardization
DOD Directive 4155.3	Quality Assurance
DOD Instruction 4200.15	Manufacturing Technology
DOD Instruction 4400.1	Priorities and Allocations
DOD Directive C4600.3	Electronic Counter-Counter-measures (ECCM)
DOD Directive 5000.1	Major Systems Acquisitions
DOD Directive 5000.2	Major Systems Acquisition Process
DOD Directive 5000.3	Test and Evaluation
DOD Directive 5000.4	Cost Analysis Improvement Group
DOD Directive 5000.23	Management Careers, System Acquisition
DOD Directive 5000.28	Design to Cost
DOD Directive 5000.30	Defense Acquisition Executive
DOD Instruction 5010.8	Value Engineering
DOD Instruction 5010.12	Management of Technical Data
DOD Instruction 5010.29	Acquisition of Data from Contractors
DOD Directive 5100.40	Responsibility for the Administration of the DOD Automatic Data Processing Program
DOD Directive 6015.1	Environmental Considerations in DOD Actions
DOD Directive 7000.1	Resource Management Systems of the DOD
DOD Instruction 7000.2	Cost/Schedule Control System
DOD Instruction 7000.3	Selected Acquisition Report (SAR)
DOD Instruction 7000.6	Management System Control
DOD Instruction 7045.7	The Planning, Programming and Budgeting System
DOD Manual 7110-1-M	DOD Budget Guidance Manual
ASPR	Armed Services Procurement Regulation.

SECNAV Instructions

No.	Date	Subject
3900.21	2-4-63	Assignment of functions for the defense scientific and technical information program

No.	Date	Subject
3900.36A	6-17-70	Reliability and maintainability (RM) of naval material; policy for
3900.37A	10-27-72	Rapid development capability for warfare systems
3900.40	8-26-72	Establishment of policy for, and technical evaluation, of independent research and development program
3960.4	10-12-73	Automatic test, monitoring, and diagnostic systems and equipment, policy and responsibility for
4000.5B	1-8-71	Preparation of material planning studies for principal items of materiel
4000.29A	1-13-71	Development of integrated logistic support for systems/equipments
4120.3C	8-9-73	Department of Defense standardization program
4350.8B	7-1-76	Engineering and technical services; assignment of responsibility for
4355.14	8-7-72	Quality Assurance
4858.2B	12-26-72	Value engineering program; Department of the Navy
5000.1	3-13-72	System acquisition in the Department of the Navy
5000.16D	1-8-70	Policy, roles, and responsibilities within the Department of the Navy for implementation of the DOD planning, programming, and budgeting systems (PPBS)
5200.26	9-25-70	Department of the Navy automatic data processing program
5200.30	8-27-75	Management of decision coordinating papers (DCPS) and program memoranda (PMS) within the Department of the Navy (DN)
5260.1C	10-20-76	Information requirements control
5400.13	8-24-71	Assignment and distribution of authority and responsibility for the administration of the Department of the Navy
5410.85A	9-19-69	Functions of the Department of Defense and its major components
5420.172B	6-9-76	Establishment of the Department of the Navy systems acquisition review council (DNSARC)
5430.7K	9-9-75	Assignment of responsibilities to and among the civilian executive assistants to the Secretary of the Navy
5430.52B	1-8-70	Establishment of the Navy Program Information Center
5430.60B	8-1-75	Office of program appraisal; responsibilities of

No.	Date	Subject
5430.67A	5-22-75	Assignment of responsibilities for research, development, test and evaluation
5700.14	2-28-72	Military-civilian technology transfer and cooperative development
7000.14B	6-18-75	Economic analysis and program evaluation for Navy resources management
7000.15B	12-5-74	Contract cost performance, funds status and cost/schedule status reports
7000.17B	7-26-72	Contractor cost performance measurement for selected acquisitions
7000.19B	3-12-75	Department of the Navy cost analysis program
7000.20	4-10-74	Contractor Cost Data Reporting
7700.5C	4-16-76	Selected acquisition report (SAR)
OPNAV Instructions		
1500.8H	7-3-25	Preparation and Implementation of Navy Training Plans in Support of hardware and non-hardware oriented developments
3960.10	10-22-75	Test and Evaluation
4720.9D	8-23-74	Approval of systems and equipments for service use
5000.42A	3-3-76	Weapons System Selection and Planning
5000.46	3-10-76	Decision Coordinating Papers (DCPs), Program Memoranda (PMs), and Navy Decision Coordinating Papers (NDCPs)
6240.3	4-24-75	Environmental Protection Manual
7043.1A	5-21-71	Management of the Shipbuilding and Conversion Appropriation
7110.4A	8-5-75	Instructions for the preparation of appropriation budget submissions
NAVMAT Instructions		
4000.15A	2-2-71	Department of the Navy Data Management Program
4000.20B	6-27-75	Integrated Logistic Support Planning Policy
4120.97A	2-17-71	Standardization of Components/Equipments Required for Fleet or Ashore Support
4130.1A	7-1-74	Configuration Management
4855.1	1-4-74	Quality Insurance Policy for the Navy Material Command
5200.11B	7-22-74	Project Master Plan
5400.14	4-7-69	Ship Life Cycle Management
Navy Procurement Directives (NPDs)		

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Appendix F

THE PLANNING, PROGRAMMING, AND BUDGETING CYCLE

The annual schedule of key events in the Navy Planning, Programming and Budgeting cycle is as follows:

October FYDP - starting point for ensuring budget cycle. Base for mission area CNO Program Analysis Memorandum (CPAM).

Program Budget Decisions (PBD) - November. Last OSD issue paper cycle prior to budget submission to the President. Issues pertinent to October FYDP.

Defense Guidance (DG) - November. The basis for Defense Planning, Programming, and Budgeting. It is the basic policy guidance and defense strategy for DOD.

SECDEF Planning and Program Guidance (PPG) - November. Describes fundamental programming objectives and provides evaluation criteria for Joint Forces Memorandum (JFM) and the Program Objective Memorandum (POM).

CNO Policy and Planning Guidance (CPPG) - November. The basic statement of Navy objectives and guidelines for orderly CPAM/POM development. More specific than PPG.

Mission Area CPAMs - January. Based on October FYDP and CPPG - should provide net assessment, issues, alternatives and funding offsets within a mission area.

Budget submission to President - January. October FYDP as updated by PBDs. The end result of previous year's POM cycle.

January FYDP - October FYDP as updated by PBDs and program repricing by NAVAIR. Used as base for summary CPAM and SPPs.

T-Summary CPAM - February. Compilation of individual CPAMs into one cohesive program showing directed programs and issues still to be decided by CNO. Funding may be moved among mission sponsors.

CNO Planning and Fiscal Guidance (CPFG) - February. Reflects CNO program direction resulting from CPAM phase, both directed and non-directed high priority programs to be incorporated in Summary CPAM and SPPs.

Sponsor Program Proposals (SPP) - February/March. Mission/platform sponsor brief to CNO which incorporates all previous guidance from CPAMs, i.e., how programs will be implemented under the guidance given. Should show fiscal balance, but may require funding from other platform sponsors. Approved programs form POM data base.

Summary CPAM - April. Wrapup of CPAM phase of POM cycle showing Navy program funding priorities and implementation among the various mission/platform sponsors.

POM - April/May. POM rationale for approved programs derived from SPPs is submitted along with all backup data, funding and force level tables. POM is submitted to SECDEF in mid-May.

Program Decision Memorandums (PDMs) - June/July. OSD issue paper response to POM submission in May.

October FYDP - the POM as updated by PDMs.

ACRONYMS AND ABBREVIATIONS

ACATS	Acquisition Categories
ARC	Acquisition Review Council
ASN(FM)	Assistant Secretary of the Navy, Financial Management
ASN(MRA&L)	Assistant Secretary of the Navy, Manpower, Reserve Affairs and Logistics
ASN(RES)	Assistant Secretary of the Navy, Research, Engineering and Systems
CAIG	Cost Analysis Improvement Group
CCDR	Contractor Cost Data Reporting
CEB	CNO Executive Board
CMC	Commandant, Marine Corps
CNM	Chief, Naval Material
CNO	Chief, Naval Operations
CNR	Chief, Naval Research
COMP	Comptroller
CPAM	CNO Program Analysis Memorandum
CPPG	CNO Policy and Planning Guidance
DCP	Decision Coordinating Paper
DDR&E	Director, Defense Research and Engineering
DG	Defense Guidance
DGM	Defense Guidance Memorandum
DN	Department of the Navy
DNSARC	Department of the Navy Systems Acquisition Review Council
DODD	Department of Defense Directive
DODI	Department of Defense Instruction
DP	Development Proposal
DSARC	Defense Systems Acquisition Review Council
DTC	Design to Cost
DT&E	Development Test and Evaluation
FM	Financial Management
FYDP	Five Year Defense Plan
I&L	Installations and Logistics
ILS	Integrated Logistics Support
IR&D	Independent Research & Development
JCS	Joint Chiefs of Staff
JFM	Joint Force Memorandum
JIEP	Joint Intelligence Estimate for Planning
JLREID	Joint Long-Range Estimative Intelligence Document
JLRSS	Joint Long-Range Strategic Studies
JRDOD	Joint Research and Development Objectives Document
JSCP	Joint Strategic Capabilities Plan
JSOP	Joint Strategic Objectives Plan
NAVMAT	Naval Material Command
MC	Marine Corps
MCP	Marine Corps Capabilities Plan
MENS	Mission Element Needs Statement
MLRP	Marine Corps Long-Range Plan

MMROP	Marine Corps Mid-Range Objectives Plans
MPCR	Memorandum Program Change Request
NCP	Navy Capabilities Plan
NDCP	Navy Decision Coordinating Paper
NPIC	Navy Program Information Center
NS&MP	Navy Support and Mobilization Plan
OFPP	Office of Federal Procurement Policy
OMB	Office of Management and Budget
ONR	Office of Naval Research
OPA	Office of Program Appraisal
OPNAV	Office of the Chief of Naval Operations
OPTEVAL	Operational Test and Evaluation
OPTEVFOR	Operational Test and Evaluation Force
OR	Operational Requirement
OSD	Office of the Secretary of Defense
OSN	Office of the Secretary of the Navy
PCD	Program Change Decision
PCR	Program Change Request
PDM	Program Decision Memorandum
PM	Program (or Project) Manager
PM	Program Memorandum
POM	Program Objectives Memorandum
PPBS	Planning, Programming and Budgeting System
PPG	Planning and Programming Guidance
QA	Quality Assurance
RDC	Rapid Development Capability
RDT&E	Research, Development, Test and Evaluation
R&M	Reliability and Maintainability
SAIP	Ship Acquisition & Improvement Panel
SAR	Selected Acquisition Report
SECDEF	Secretary of Defense
SECNAV	Secretary of the Navy
SFGM	Strategic and Fiscal Guidance Memorandum
STO	Science and Technology Objectives
T&E	Test and Evaluation
TEMP	Test & Evaluation Master Plan
VE	Value Engineering