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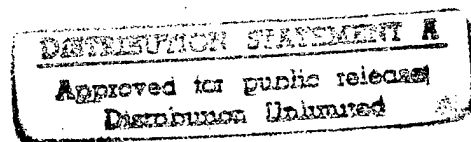
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Observations on Office of Management and Budget Circular A-109: Major System Acquisition by the Department of Defense

(U.S.) General Accounting Office, Washington, DC



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BY THE COMPTROLLER GENERAL

Report To The Congress

OF THE UNITED STATES

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Observations On Office Of Management And Budget Circular A-109--Major System Acquisitions By The Department Of Defense

The Office of Management and Budget Circular A-109 was issued to prescribe management policies and further the acceptance of recommendations on managing major system acquisitions made by the Commission on Government Procurement. This report provides observations on the Department of Defense progress with A-109 and makes several recommendations to the Secretary of Defense.



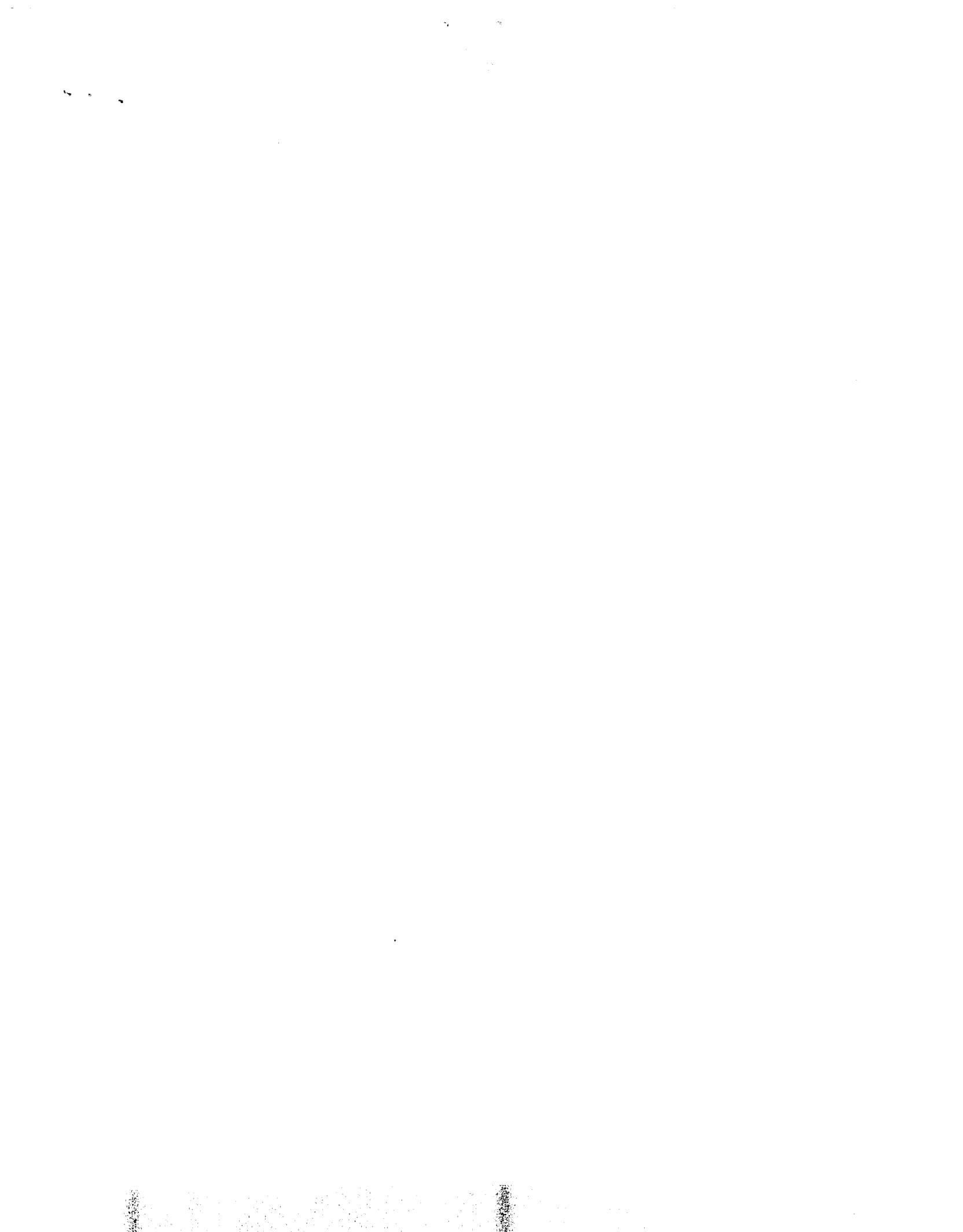
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FEBRUARY 20 1979





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

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

This report discusses our observations on the implementation by the Department of Defense of the Office of Management and Budget Circular A-109 on major system acquisitions. The Office of Federal Procurement Policy published Circular A-109 to encourage adoption of recommendations contained in the report of the Commission on Government Procurement published in December 1972.

There had been particular concern about past programs which were permitted to proceed without agency administrators determining whether or not they represented the highest priority needs of the agency.

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

A handwritten signature in black ink, appearing to read "Thomas A. Rosten".

Comptroller General
of the United States



D I G E S T

The Office of Management and Budget Circular A-109 prescribes policies to guide Federal agencies in managing their major system acquisition programs. The Circular is based on recommendations proposed in December 1972 by the Commission on Government Procurement, following an exhaustive study of Federal procurement practices.

Circular A-109 applies to a variety of systems--
major weapons, automatic data processing equip-
ment, construction projects, transportation
systems, space systems, and energy projects.
This report deals entirely with the Circular's
application to defense activities. GAO in-
tends to follow this with a second report
covering A-109's application in other Govern-
ment agencies. *p. 2*

Experience with Circular A-109 is too new to
permit a complete evaluation of its value in
improving the management of defense acquisi-
tions. *primarily* This is particularly true in the
"front end" of the acquisition process--the
determination of needs and identification of
the best solution to the needs--since so few
acquisitions have been started and none have
been completed since A-109 took effect.

However, some pertinent observations can be
made.

--A-109's primary objective of having
agencies acquire major weapon systems
consistent with the agency's princi-
pal needs will not be achieved until
the Office of the Secretary of Defense
shows more aggressiveness in defin-
ing DOD missions and clearly delin-
eating the roles of the services.
Essentially, each service has been de-
fining its own missions and respon-
sibilities and analyzing its mission
needs accordingly. As a consequence

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cover date should be noted hereon:

there is no assurance that the highest priority needs from an overall agency viewpoint are being addressed. (See pp. 9 and 10.)

--In a number of instances it has taken as long as 5 months for the Office of the Secretary of Defense to review and approve statements of need submitted by the services. Prolonged review could lead to some disenchantment with Circular A-109, which already has been challenged by some who see it as having a potential to prolong the system acquisition process. (See p. 14.)

--Research and development funds to finance solicitations to industry for alternate design concepts may become a recurring part of DOD's annual budget request. Up to now DOD has reprogrammed funds to cover this cost. (See pp. 19 and 20.)

--Implementation of A-109 in DOD has been spotty. Although it revised its two basic directives to comply with A-109, the Office of the Secretary of Defense had not revised other pertinent directives, including some which were identified for revision in its August 1976 plan for implementing A-109. (See p. 6.)

--The Army and Air Force have been the most responsive and have revised their basic directives on system acquisition to reflect the new policies. The Navy has not given it a high priority.

--The Office of the Secretary of Defense has yet to extend the Circular's policy to military construction and is only now extending it to the acquisition of automatic data processing equipment. (See pp. 5 to 8.)

--Additional Office of the Secretary of Defense guidance to the services would be useful on aspects of A-109, such as joint mission analyses and

devising a good acquisition strategy applicable to major weapon systems. (See pp. 10 and 21.)

The Secretary of Defense should give further emphasis to carrying out Circular A-109 by

- defining the DOD missions and the services roles to make certain that the agency's highest priority major system needs are correctly identified;
- requiring the services to coordinate their mission analyses where they are assigned joint or related missions;
- making the necessary organizational and procedural changes to reduce the time for reviewing and approving service statements of need;
- identifying in annual research, development, test, and evaluation budget requests the amount estimated to be needed to finance the exploration of competitive design concepts to meet approved needs and account to the Congress for the funds as they are used;
- completing the Office of the Secretary of Defense A-109 implementation plan of August 1976; and
- directing the Navy to bring its system acquisition directives into line with Circular A-109 and the implementing DOD directives.

DOD generally agreed with the contents of the report and cited actions it has begun which conform to GAO's recommendations. DOD acknowledged the need to show more aggressiveness in delineating missions for the military services. It finds, however, that the need to accommodate the views of the President and the Congress as to mission priorities complicates the process and influences DOD resource allocations.

DOD disagreed with GAO's concern that operational test and evaluation may be curtailed in an effort to shorten the acquisition process. (See pp. 22 and 23.)

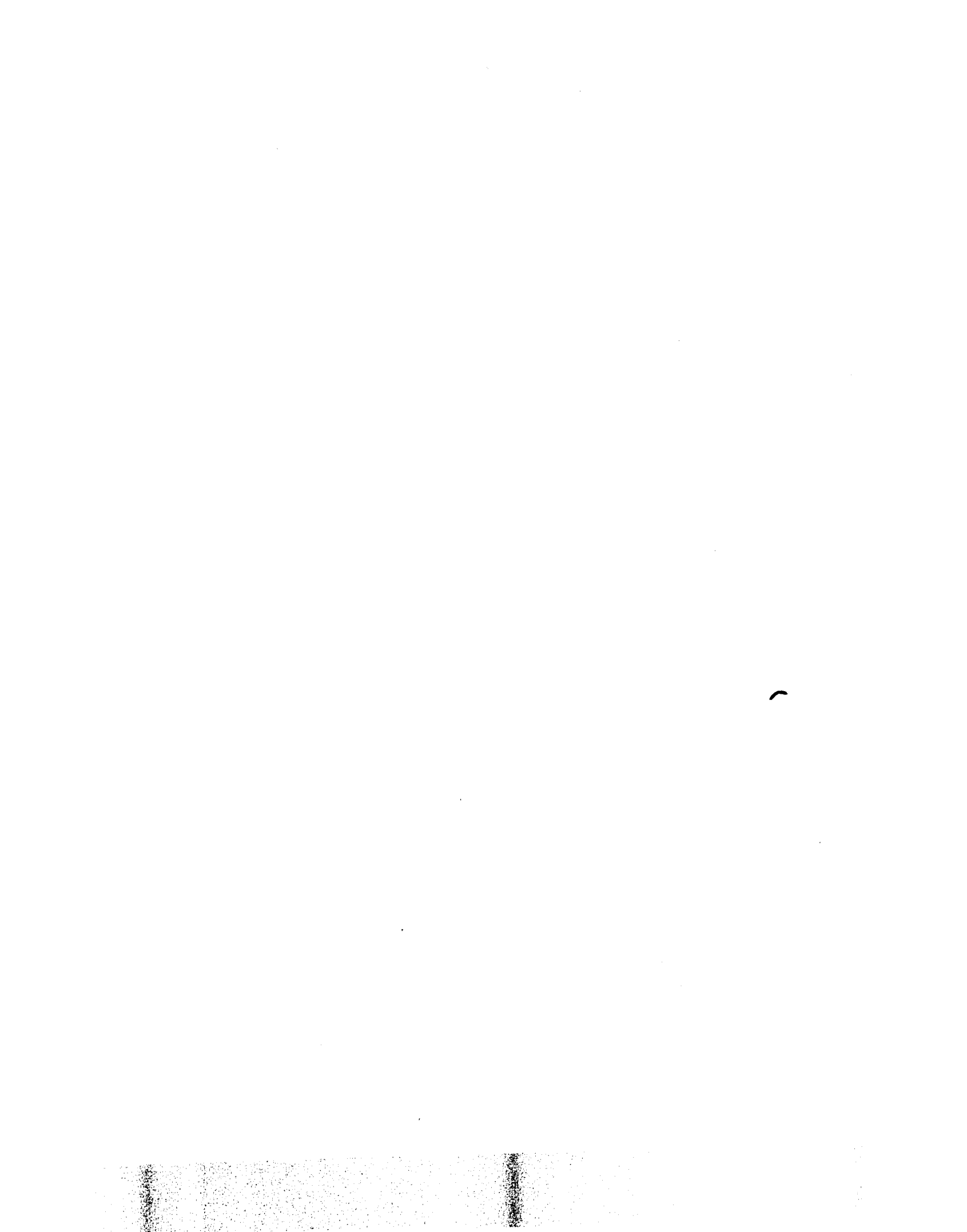
The Office of Federal Procurement Policy of
the Office of Management and Budget declined
to comment on this report.

C o n t e n t s

		<u>Page</u>
DIGEST		i
CHAPTER		
1	INTRODUCTION	1
2	IMPLEMENTATION OF A-109 REQUIREMENTS BY DEFENSE MANAGEMENT	5
3	THE PRE MILESTONE O PROCESS--ESTABLISH- ING THE NEED FOR A NEW WEAPON SYSTEM	9
4	THE POST MILESTONE O PROCESS--MANAGING THE ACQUISITION PROGRAM	19
5	CONCLUSIONS, RECOMMENDATIONS, AND AGENCY COMMENTS	25
APPENDIX		
I	Letter dated November 8, 1978, from the Under Secretary of Defense for Research and Engineering	28

ABBREVIATIONS

DOD	Department of Defense
DSARC	Defense Systems Acquisition Review Council
GAO	General Accounting Office
OFPP	Office of Federal Procurement Policy
OSD	Office of the Secretary of Defense
MENS	Mission Element Need Statement



CHAPTER 1

INTRODUCTION

The Office of Management and Budget's Office of Federal Procurement Policy (OFPP) issued Circular A-109 in April 1976, establishing policy for executive agencies to follow in managing the acquisition of major systems. Some of the procedures A-109 prescribes are a radical departure from those traditionally followed in acquiring new systems. It was to be expected that its acceptance would vary from agency to agency. This report examines the Department of Defense's (DOD's) progress in implementing A-109 policy in the management of its acquisition programs. We plan to publish a similar report covering other Federal agencies within a few months.

History of A-109

A-109 policy has flowed largely from recommendations made by the Commission on Government Procurement. This Commission was established pursuant to Public Law 91-729 to study the need for improving the efficiency and effectiveness of Federal procurement practices. The Commission's report, issued in December 1972, declared that

"* * * the need to improve major system acquisition has been made apparent by the succession of cost overruns, contract claims, contested awards, buy-ins, bail-outs, and defective systems that have drawn sharp criticism in recent years."

In addressing these problems, the Commission reviewed the entire acquisition process, covering all the basic steps from the initial statement of a need for something new to the eventual use of the product. Of the Commission's 149 recommendations on procurement practices, 12 apply to the procurement of major systems.

A-109 establishes a Government-wide policy based on the Commission's 12 recommendations on major system acquisitions. It also reflects considerations disclosed in House and Senate Committee hearings and in public hearings held by OFPP, as well as the results of extensive coordination with the executive branch and with the private sector on managing major system acquisition programs.

A-109's provisions are oriented toward major items involving heavy research and development commitments, that

is, major weapon systems. In fact, DOD's procurement process was evidently a model on which the Commission recommendations and A-109 policy sought to improve. The issuance of A-109 was expected to greatly affect defense management, particularly the requirements for mission analysis, statements of need, and a new procedure that an agency head, not subordinates, should decide the need for a new major system before an acquisition program is initiated.

DEFENSE MANAGEMENT METHODOLOGY

DOD defines weapon system acquisition programs as major when the development cost exceeds \$75 million and/or the procurement cost exceeds \$300 million, or when the Secretary of Defense so designates, regardless of cost.

DOD employs two primary methods in managing and controlling acquisition programs for major weapon systems. First is the basic Planning, Programming, and Budgeting System used to manage all DOD assets. It is based on a continuing 5-year DOD program which is adjusted yearly to conform with the President's desires and congressional authorizations and appropriations. All major weapon system programs must be included in the Five Year Defense Program in order to receive the President's approval and congressional authorization and appropriation of funds.

Second is the program management guidance for acquiring major weapon systems, which is expressed in two basic DOD directives.^{1/} These documents adopt and promulgate A-109 policy and procedures. They require periodic reviews of each acquisition program's progress at the critical points when major decisions on continuing the program and the course to be followed must be made by the Secretary of Defense. The review points are:

Milestone O--Program Initiation. The Secretary of Defense reviews a service proposal for a new major acquisition program or major modification of an existing system and approves or disapproves it. With approval, the service begins a search to find system concepts which will satisfy the need.

^{1/}DOD Directives 5000.1, Major Systems Acquisition, and 5000.2, Major Systems Acquisition Process, Jan. 18, 1977.

Milestone I--Demonstration and Validation. The Secretary of Defense reviews and determines which of the alternative concepts proposed are acceptable for competitive demonstration and validation of their ability to satisfy the need. There is some flexibility, however, in that DOD policy also permits a single system to be chosen and approved to bypass the demonstration and validation phase and proceed directly into the next phase, full-scale engineering development.

Milestone II--Full-Scale Engineering Development. The Secretary of Defense reviews the demonstration and validation phase results and, if acceptable, selects a system concept to advance and continue through the full-scale engineering development phase. This step is to include his approving procurement of long lead items and such limited production as is required to support operational test and evaluation.

Milestone III--Production and Deployment. The Secretary of Defense reviews the results of the preceding phase and approves or disapproves committing the system to full production and deployment to military units.

The Secretary of Defense is assisted in all milestone reviews by his staff. 1/ A special review group, the Defense Systems Acquisition Review Council (DSARC), which is composed of the Under Secretary of Defense for Research and Engineering 2/ and the Assistant Secretaries of Defense, review the programs at Milestones I to III and provide advice to the Secretary to assist him in making decisions on proceeding with the acquisition. For certain designated

1/The Deputy Secretary of Defense may substitute for the Secretary in these matters.

2/The Under Secretary of Defense was appointed Defense Acquisition Executive and serves as the focal point in the Office of the Secretary of Defense (OSD) for system acquisition matters.

systems, DSARC may be supplanted for the Milestone I review by a group composed of similar personnel of a service headquarters and the service Secretary.

PRIOR GAO STUDIES

We have issued three reports dated January 24, 1977, covering the application of A-109 to three defense system acquisition programs--the SIRCS, 1/ NAVSTAR, 2/ and Pershing II. 3/

SCOPE OF REVIEW

We reviewed the extent to which Defense is complying with A-109 and the effect it has had on DOD's management. We conferred with officials of OFPP, OSD, and the Joint Chiefs of Staff and examined appropriate DOD directives, reports, correspondence, and other records to confirm top agency leadership initiatives to change policies and promote compliance. We met with service headquarters and field installation officials where we examined implementing directives and weapon system documents to determine compliance at the military service level.

We also met with Defense Systems Management College officials to evaluate the College's role in educating DOD executives, program managers, and program office personnel about A-109 policy and procedures.

1/"Comparison of the Ship Board Intermediate Range Combat System with the Acquisition Plan Recommended by the Commission on Government Procurement," PSAD-77-49.

2/"Comparison of the NAVSTAR Program with the Acquisition Plan Recommended by the Commission on Government Procurement," PSAD-77-50.

3/"Comparison of the Pershing II Program with the Acquisition Plan Recommended by the Commission on Government Procurement," PSAD-77-51.

CHAPTER 2

IMPLEMENTATION OF A-109 REQUIREMENTS

BY DEFENSE MANAGEMENT

The Department of Defense and the services have been gradually adopting A-109 guidance into its management policies and procedures for major weapon system programs. They did not begin adopting the Commission of Government Procurement's recommendations until internal DOD studies 1/ recognized the need for such changes.

We believe the slow pace has been due in part to the cautious manner with which a huge bureaucracy such as the DOD functions, particularly, when attempting to change the behavior patterns of the large numbers of persons involved in managing and carrying out major acquisition programs.

ACCEPTANCE OF A-109

In general, OSD and service headquarters officials, both civilian and military, support the Circular. While A-109 stems from the Commission's recommendations, it also represents, to a great extent, an evolutionary outgrowth of DOD policy and practices that have been developed over the years.

A-109 brings some radical change to DOD's acquisition management. In the instance where the establishment of the Milestone O review requires the Secretary of Defense to approve every need for a new weapon system, we found resentment among service personnel who believe that the services are the best judges of the need for new weapon systems and their configuration. 2/ This is further compounded by A-109's requiring solicitations to industry for solutions

1/Army Material Acquisition Review Committee, 1974; Navy/Marine Corps Acquisition Review Committee, 1975; Air Force Memorandum to the Deputy Secretary of Defense, 1975; and the Acquisition Advisory Group, 1975.

2/The recent controversy between the Secretaries of Defense and the Navy over the fixed wing aircraft carrier and the vertical takeoff aircraft carrier is an example. Some Navy officials believe the Chief of Naval Operations has the best and only valid knowledge of what the Navy needs to fight a war.

to the need and its precluding the services from proposing a system's characteristics. Except for proposals by government laboratories, it permits service experience and judgment only in evaluating industry's proposals. This apparent rebuff to the military could frustrate A-109's acceptance and workability more than any other factor.

PUBLISHED GUIDANCE

In addition to OSD's revising its Directives 5000.1 and 5000.2 on acquisition management and 5000.3 on test and evaluation, the Army and Air Force have revised their previously existing directives covering system acquisitions. The Navy, however, has not done so and instead issued a covering document to DOD directives. This delay in changing the basic Navy directives appears to be due to differing opinions within the Navy on how this should be done, the lack of priority the Navy has given to this task, and the difficulty of coordinating a major change to Navy policies and procedures. We were unable to obtain any definite publication date for a revised Navy directive from Navy officials.

OSD is presently considering new changes to its Directives 5000.1 and 5000.2. One major deficiency we noted in these directives was the lack of direction to the services to cooperate in accomplishing mission analysis, the importance of which we discuss on page 10.

FAILURE TO ACCOMPLISH A-109 IMPLEMENTATION PLAN

The Deputy Secretary of Defense informed OFPP in August 1976 of DOD's plan for implementing A-109. Among other things, the plan was to revise a number of DOD directives, other than 5000.1 and 5000.2, which relate to system acquisition activities. Most of these directives, as well as a number of other pertinent directives had not been revised. In some instances, responsible officials were unaware of any requirement for revising the document for compliance with A-109. This indicates a breakdown in OSD's implementation of A-109 and perhaps reveals less serious intent to comply with A-109 than OSD officials have stated.

A-109'S APPLICATION TO AUTOMATIC DATA PROCESSING EQUIPMENT ACQUISITIONS

The Assistant Secretary of Defense (Comptroller) functions as manager of automated data processing equipment acquisition programs. Although a number of Defense directives are on automated data processing equipment management,

the Assistant Secretary has not yet issued instructions relative to management of automated data processing equipment acquisition as affected by A-109, but a directive is being prepared. We reviewed a copy of a proposed draft, and it seemed to provide much of the policies and practices required by A-109.

There were some notable exceptions. The Secretary of Defense's approval is not required before a new program begins or at the major program decision points. A specified group of OSD officials, including the Assistant Secretary of Defense (Comptroller), will make these decisions collectively through the authority vested in them by the Secretary of Defense.

DOD is troubled by the A-109 requirement that all solutions to automated data processing equipment needs, i.e., equipment and software, must be bid by competing contractors. An OSD official said it is DOD's experience that software and equipment to be used for a program cannot be separately bid but must be provided by the same supplier to avoid major problems.

A-109'S APPLICATION TO MILITARY CONSTRUCTION

The Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics) functions as manager of DOD's major construction programs. Personnel of his staff whose duties fall within the policies and practices prescribed by A-109 were unaware of the Circular at the time of our inquiry.

Subsequently, after an opportunity to study A-109, an official ventured the conclusion that with the exception of not having appointed an acquisition executive for construction, construction management practice was following the methods described in A-109.

DOD reviews of military construction needs often accompany reviews of other major programs. When this happens with a major weapons system program such as the TRIDENT submarine program, the Secretary of Defense would have an opportunity to consider and pass judgment on the need for the construction and on construction progress as part of the weapon system program milestone decisions.

Most defense construction is not as directly connected with a weapon system program, however. The defense components analyze their needs and submit them yearly to the Assistant Secretary of Manpower, Reserve Affairs, and Logistics for review. The total yearly defense construction

program is approved by the Secretary of Defense in the annual Defense Planning, Programming, and Budgeting System review and submitted to the Congress in detail for authorization and appropriations.

PERSONNEL INDOCTRINATION

DOD assigned the Defense Systems Management College a primary role in A-109 training for personnel involved in major weapon programs. The College included A-109 material in its program manager training and executive refresher courses commencing in 1977. A special 2-day seminar on A-109 was begun in December 1977 for OSD officials and the services' headquarters.

Navy and Air Force officials claimed that A-109 has been included in their service schools and training programs. For example, Air Force officials estimated 1,200 people had been briefed on A-109. Army officials said they were developing training plans.

OSD officials and the service personnel whom we interviewed generally seemed knowledgeable regarding A-109.

CHAPTER 3

THE PRE-MILESTONE O PROCESS--

ESTABLISHING THE NEED

FOR A NEW WEAPON SYSTEM

MISSION ANALYSIS

A-109 directs Government agencies to accomplish system acquisition planning built on analysis of agency missions. Mission analysis is a study of an agency's responsibilities to fulfill its missions and a determination of the way they are to be carried out. It is the basic platform for all that follows in acquiring weapon systems. ^{1/} DOD has assigned the responsibility for continuing analysis of mission areas to the military.

Problems in identifying and describing missions

Mission analysis first requires a clear identification of the mission and a description of its elements. A sound mission analysis will highlight an agency's major system needs in order of priority. Without a clear-cut description of the mission and who is to participate in it, any conclusions drawn from an analysis may be faulty.

Competition among the services for roles and missions has been a major factor in OSD's inability to come up with mission identifications and descriptions. Each service is entrusted to define its own roles and missions. The mission needs presented to OSD by the services have often represented a parochial viewpoint. There is, however, no assurance that the highest priority needs from an overall agency viewpoint are being addressed. Determinations of needs and avoidance of weapon duplication are also difficult where more than one service has a role in the same mission, such as in air defense or in close air support of ground operations. A number of attempts over the past several years to establish a standard identification and

^{1/}The Under Secretary of Defense in his role as Defense Acquisition Executive issued a letter on January 18, 1978, which stated "the process * * * [weapon system acquisition management] * * * will hinge on our ability to conduct and present rigorous mission area analysis as the basis for establishing mission deficiencies and needs."

description of missions which would be uniformly acceptable to OSD and the services have all been unsuccessful.

A new defense study group concerned with implementing A-109 is attempting to resolve this issue of mission identification and description. Mission analysis, identification of weapon system deficiencies and duplications, development of statements of need for new systems, assignment of development and procurement priorities, and funding of programs are all dependent upon this determination.

Joint mission analysis by the services

For many years, the services have studied and analyzed the potential enemy threat and the U.S. ability to counter the threat. These were a part of each service's efforts to determine its own needs. Joint attempts by the services to determine their combined needs where each had a role in an overall mission, e.g., air defense, were rare.

The OSD directive on major acquisitions perpetuates this individual service approach by specifying only that the "components will perform continuing mission area analysis." No mention is made of the need for the service to do joint studies and analysis. The only evidence of current interest in joint mission analysis was in studies jointly performed by the Army Training and Doctrine Command and the Air Force Tactical Air Command. They had developed a statement of need based on an analysis of tactical air reconnaissance and battlefield surveillance and had three other joint studies underway covering defense suppression, close-air support, and counter-air missions. However, the fact that the Navy and Marine Corps were not involved in any joint mission analysis with the other services indicates that direction of such efforts is needed at the OSD level.

The Assistant Secretary of Defense (Program Analysis and Evaluation) at one time was considered for a leading role in providing guidance to the services on mission analysis but has since become only a reviewer of the services' statements of need for new acquisition which are prepared after mission analysis is completed. The Assistant Secretary has the system analysis staff to independently and analytically review proposed DOD missions and requirements and assume a stronger mission analysis role, particularly in selecting opportunities for joint service analysis.

Mission analysis by each service

Each service has taken its own approach to the requirement for mission analysis expressed in A-109 and the DOD directive on major program acquisitions.

Air Force

The Air Force has been the service most agreeable to embracing the mission analysis concept, particularly in attempting to utilize it in preparing and presenting a budget request based on the requirements expressed in the Congressional Budget and Impoundment Control Act of 1974. 1/

The Air Force identified 11 mission areas for its participation. A specially selected team was chosen to study each mission in support of the fiscal year 1979 budget by mission presentation.

In addition, an Air Force study group has developed a new Air Force planning guide and a long-range capability objectives (15 years) to help with mission analysis, mission budgeting, and as statements of need for new acquisition programs.

Army

The Army is initially using what it calls capability categories as its basis for accomplishing mission area analysis. This is a breakdown of the various functional areas of combat together with the weapon systems and material to be used. The Army has a comprehensive set of study methods for analysis of weapon system reliabilities and interrelationship, forces, tactics, doctrine, etc., all of which potentially contribute to mission analysis.

Navy

There is no requirement that operational requirements documents be supported by formal, written analysis or studies. The Navy uses its Chief of Naval Operations Program Analysis Memorandum which utilizes designated missions called warfare areas, to assess its needs each year for the budget presentation. The Navy does not plan to coordinate its operational requirements or statement of need with other services and will depend on OSD for such coordination.

1/Public Law 93-344, H.R. 7130 (S. 1541) enacted July 12, 1974.

MISSION ELEMENT NEED STATEMENT

A-109 directs that after an agency has identified a need, a statement be prepared for the agency head to review and approve if acceptable. After approval the need is to be communicated to the Congress for consideration.

DOD calls its statement of need a Mission Element Need Statement (MENS). The concerned service usually prepares the MENS and forwards it to the Defense Acquisition Executive. MENS is then reviewed by OSD specialists, after which the Acquisition Executive forwards it with his recommendations to the Secretary of Defense for disposition. The Secretary of Defense's decision completes the Milestone O phase of the weapons system acquisition program management, i.e., deciding whether there is an actual need that must be satisfied. 1/

Mission Element Need Statement

- .Identifies mission area by performance tasks
 - Does not specify system capabilities or characteristics
- .Assesses the threat
- .Analyzes existing capabilities to meet mission tasks
 - Identifies deficiencies/attributes
 - Projected Obsolescence
 - Technological or cost saving opportunities
- .Establishes recognized boundary constraints
 - Operational and logistical consideration
 - NATO standardization/interoperability
 - Resource/time limitation
- .Assesses impact of capability void
- .Provides program plan to evaluate competitive alternative
- .System approaches

Managing the MENS

MENS has become the focal point of discussion concerning DOD compliance with A-109. Perhaps this is because it is the first tangible evidence of interest in establishing a new weapon system program.

1/The need as expressed in a MENS could in some instances result in a requirement for more than one weapon system.

MENS preparation and processing procedures have confused many persons involved in either managing an acquisition program or observing the management. The Defense Acquisition Executive found it necessary to supplement DOD directives by issuing a letter on January 18, 1978, emphasizing the intent and clarifying when and how a MENS document will be prepared.

The Executive instructed that MENS be prepared for all new proposals and for ongoing programs that will not have been through any Milestone review by the end of fiscal year 1978. For those programs, MENS is to be submitted to the Secretary of Defense for a Milestone 0 decision. For all other programs, i.e., those past Milestone I reviewed by the Defense Systems Acquisition Review Council, the Executive directed that the Decision Coordinating Paper document be modified during the normal revision process to include all elements of MENS. DOD does not consider it practical to make a Milestone 0 type of study for these older programs (past Milestone I). The Defense Systems Acquisition Review Council is to revalidate the need for such programs at the next review.

The Acquisition Executive's action is a reasonable pragmatic approach to solving the administrative problems of preparing and approving the need for older, ongoing programs. The need for these programs received at least tacit approval by the current Secretary of Defense or his predecessors at previous Milestone or budget reviews.

MENS status

At the time of our review, DOD had 85 major acquisition programs of which 55 were past Milestones I or II, and 29 were past Milestone III and in production. ^{1/} One, the CVV carrier, was not reviewed by the DSARC. MENS information on the 55 were to be prepared and added to the Decision Coordinating Paper documents. For some programs, this could be several years away, depending on the planned date of the next DSARC review.

The DOD instructions did not specify the reasons for not preparing MENS information for a system in production. Since the MENS' primary purpose is to affirm that a need exists, we think MENS information should be required for such reasons as an unplanned increase in production quantities or when a major and costly modification to the system becomes necessary. We pointed out the need for a Mission Area

^{1/}These quantities may change at any time due to the dynamic nature of the programs.

Analysis and a MENS for such situations in a 1978 report to the Congress. 1/

OSD review of MENS

The Secretary of Defense had approved only two MENS: the Army's Close Combat Antiarmor Weapon System 2/ and the Navy's VCX 3/ programs. Thirty-nine 4/ other MENS were either being considered or being prepared.

The Secretary of Defense and his staff may be taking too long to review and decide on MENS submitted for approval. They used 5 months (August 1977 to January 1978) to review the Close Combat Antiarmor Weapons System MENS and the VCX MENS. They also used 5 months to review and reject the Marine Corps surface assault vehicle which has since been resubmitted. The Vertical/Short Takeoff and Landing (V/STOL) MENS has moved back and forth between the Navy and OSD since 1977.

The need for OSD specialists to review MENS and for the Secretary of Defense to approve them has been a sensitive subject with many service personnel. Long deliberations at OSD adds fuel to the contention that the Milestone 0 review will only add to the "already too lengthy time" required to develop new major weapon systems. We have observed that OSD personnel are usually very knowledgeable about the services' plans well before the proposals are formally submitted to OSD. This should save some time in OSD's review. The Secretary of Defense should consider establishing a timetable for each OSD review.

Joint MENS

The Army and Air Force jointly formulated four MENS for new requirements. During our review, only one--the Tactical Reconnaissance/Surveillance, Target Acquisition--had been

1/"Air Defense Missions Must Be Clarified Before Billions Are Spent On Modernization," PSAD-78-86, May 10, 1978.

2/Previously called the Advanced Heavy Antitank Missile System.

3/Tactical warfare combat logistics support.

4/This figure was correct at the time of our review, but should be considered as approximate as the number of systems change quickly.

submitted to the Secretary of Defense for approval (March 1978). He is to decide which service is to lead this assignment if it is approved.

The Acquisition Executive's letter of January 1978 provides an outline for preparing a MENS which encourages joint effort by the services. Such cooperative efforts in MENS preparation, review, and resolution are worthwhile, but it would be even more useful if this cooperative effort were applied earlier to mission analysis.

Backfill MENS

Some MENS processed thus far are actually documents prepared to justify the need for programs under consideration prior to DOD's adoption of A-109 policy and procedure. For these programs the Secretary of Defense has required MENS data be prepared for consideration at the next major program review point. In any event, for the programs involved, this has been a matter of backfilling the MENS document, i.e., preparing a justification for a development program already decided upon. It will probably be several years before a sufficient number of new programs are approved and processed in accordance with A-109 policies and procedures so that the Mission Analysis/MENS approach can be evaluated.

APPLICATIONS OF A-109 TO SPECIFIC PROGRAMS

The services believe they are, for the most part, complying with the intent of A-109 in preparing MENS. ^{1/} We examined documents on several programs and found, for the most part, that the programs had been around for some time and that the MENS documents were for programs in which the system to be developed had already been identified. MENS, therefore, was primarily a backfill effort, i.e., preparing a document to justify a need and the specific solution already decided upon. The compliance with A-109 is sometimes erratic, as shown in the following cases.

^{1/}In June 1978 OSD and the Office of Federal Procurement Policy, jointly reviewed A-109 compliance status for 15 programs. They judged one program to be in compliance, eight others in compliance but with shortcomings, and five not in compliance. An older program was judged consistent with A-109.

Army Close Combat Antiarmor Weapon System

The Close Combat Antiarmor Weapon System (CCAWS) was the first Army program proposed for a Milestone review. The System was already in progress when the Army decided in April 1977 to manage the program in accordance with the then recently published DOD instructions on A-109.

A MENS was prepared and submitted to the Secretary of Defense in August 1977. The statement of need was the first Army proposal OFPP judged as in compliance with A-109. But contrary to A-109, the Army in September 1977 released requests for proposal for weapon system concepts before receiving Secretary of Defense approval. The proposal was not coordinated with the other services. The Army apparently considered the mission area to be exclusively Army.

The Secretary of Defense approved the MENS in January 1978.

Army/Air Force Tactical Reconnaissance/ Surveillance Target Acquisition

This program was proposed as a result of a joint effort attributable to the initiative and cooperation of the user commands within the Army and Air Force. The supporting mission area analysis, however, was not formally documented until after MENS was completed. The joint MENS took about 5 months to prepare. It was submitted to the service headquarters in January 1978 and to the Secretary of Defense in March 1978, where it was awaiting approval.

Formal coordination of MENS with the Navy was not completed until after its submission to the Secretary of Defense. This coordination seems to have come late in the process but neither the basic DOD directives nor A-109 specify when this must be done.

Navy torpedo program

The Advanced Light Weight Torpedo program is one of three programs Navy officials believed were proceeding in accordance with A-109 concepts; the others being the Shipboard Intermediate Range Combat System (SIRCS) and Vertical/Short Takeoff and Landing (V/STOL). Viewed strictly, the torpedo program diverges from A-109 because the operational document was written in terms of not only the need but of the solution as well. It had been intended from the start that the military need would be some form of torpedo. DOD has since told us

"* * * serious alternatives to torpedoes will be welcomed and investigated as long as they can meet the requirements stipulated." However, during our review Navy officials identified the alternatives as torpedoes and nothing else.

Further, a Navy official said that alternate design concepts would not be solicited from industry until after Milestone I. After reviewing our preliminary report, DOD informed us that this was incorrect, and under the present plans, the concept would be evaluated before Milestone I.

In other respects the program compares more favorably with A-109. Companies will be invited to submit their own torpedo designs and will be relatively unconstrained as to their design solutions. Performance goals will be subject to cost trade-offs. The Navy plans to award contracts to two companies to demonstrate and validate their designs, thus preserving competition to the engineering development stage.

Navy/Marine Corps beach assault vehicle

In 1973 the Marine Corps recognized the need for a new method of launching beach assault from ships located far from the shore. The Navy explored proposals from industry in 1975 and awarded three contracts to explore this concept. After publication of A-109 and DOD directives, it became necessary to prepare a MENS document. OSD rejected the document and directed the Navy to propose alternative design concepts.

Management of the Surface Assault program does not appear to follow the concepts of A-109. The Navy does not plan to solicit unconstrained design concepts for this program from industry.

Although OSD directed the Marine Corps to consider various system solutions other than the high-speed amphibian vehicle, it appears that the Marine Corps has already settled on that solution. There are several indications of this. More effort by far has been given, and continues to be given, to the high-speed amphibian vehicle. The Marine Corps Required Operational Capability document, which was approved in February 1978, is premised on the high-speed amphibian vehicle and, in fact, is entitled the "Landing Vehicle Assault." The project office is called the Landing Vehicle Assault Project Office.

Conclusion

It is evident that full compliance with A-109's provisions is not present in these programs. Yet, since they were started before the Circular took effect, they may not present a fair picture of the services' intentions to follow A-109's dictates. A judgment must await more experience with programs started after A-109's publication.

CHAPTER 4

THE POST-MILESTONE 0 PROCESS--

MANAGING THE ACQUISITION PROGRAM

EXPLORING ALTERNATIVE SOLUTIONS

Soliciting industry for competitive alternative solutions to a statement of need is a major change in procurement practices which A-109 seeks to bring about. The burden for devising the hardware concept passes from the military to private industry. The expectation is that giving industry's inventiveness free rein in a competitive environment would result in the best solution.

Experience with this approach has been too limited to assess its value. From a few discussions, industry seems anxious to accept the challenge of working without the constraints of preconceived equipment specifications.

On the Department of Defense side, however, there could be some problems in evaluating the produced solutions which are apt to be extremely varied and, therefore, require unusually broad expertise from the evaluators. For example, on the Navy's Shipboard Intermediate Range Combat System (SIRCS)-- a system to use against cruise missiles, aircraft, and surface vessels--the solutions proposed by various contractors included electronic countermeasure concepts, radar suites, and gun and missile systems. DOD evaluations in this type of situation, possibly requiring numerous consultants, could be prolonged and expensive.

FUNDING FOR ALTERNATIVE SOLUTIONS

DOD officials are concerned about how to finance exploration of alternative solutions, that is, cost of contracts with industry and costs for a government program office or exploratory task force. Officials believed the funds would have to be provided by reprogramming money appropriated for other programs or from a special authorization and appropriation each year earmarked for this purpose.

Reprogramming implies that (1) a certain amount of overfunding of development money is in DOD each year or (2) programs of lesser priority must give up funds, usually with a resulting disturbance of their progress. In the past, DOD has used reprogramming as a source of funds for urgent new programs.

Some Government and industry officials would prefer to see a special fund authorized for this purpose. Estimates of the possible annual cost ranged upward from \$10 million. DOD directives on acquisition management do not address the question of how these funds will be provided.

Fiscal years 1979 and 1980 MENS funding

As a practical matter, however, seed money for programs whose milestone reviews will occur after the budget submission has been spread throughout the research, development, test, and evaluation appropriation in the past. Therefore, funding the exploration of alternative system concepts in fiscal year 1979 and probably in fiscal year 1980 as well, will be by reprogramming.

Dependence on reprogramming is not good fiscal policy. If there are excess research and development appropriations each year, then steps to develop more accurate estimating should be taken, reprogramming should be minimized, and excess funds should be returned to the Department of the Treasury.

Adequate funding is obviously critical to ensure the widest possible solicitation among qualified contractors for solutions to the need.

It seems to us that a portion of the annual research and development funds should be specifically designated for exploring alternative concepts. This funding may best be placed under the dispensing authority of the Secretary of Defense, rather than each service, if it is to be advantageous in developing joint services mission needs as well as satisfying individual service proposals. Strict control should be applied to insure that funding is used only for exploring of alternate concepts.

PROJECT MANAGEMENT

A-109 directs that a program manager be assigned when the decision is made to pursue alternative design concepts, that is, at the completion of the Milestone O review. Air Force and Navy officials said they expect to assign program managers at this time.

The Army has received approval from the Secretary of Defense to use a task force (management committee) with a director to manage the program until completion of the Milestone I review, at which time it will assign a program manager. The task force director would probably be a

representative of the ultimate user of the system and the assistant program director would be oriented towards research and development. Army officials believe a dedicated task force, composed of variously skilled personnel, is better suited to finding the solution(s) to Army needs than a program manager.

The Army's approach probably falls within the flexibility afforded A-109 policy and procedures by the Defense Acquisition Executive and the Administrator of Federal Procurement Policy.

ACQUISITION STRATEGY

A-109 requires that an acquisition strategy be tailored for each program. Army and Air Force directives provide more detailed guidance to their program managers. The Navy is developing a new guide for project offices which will provide such guidance.

No detailed criteria have been published by the Office of the Secretary of Defense on the development of an acquisition strategy. Only a brief, generalized instruction is contained in its basic acquisition directive (5000.1).

Review in the Office of the Acquisition Executive consists of informed opinion of individuals based on their personal expertise in project management or their experience in devising acquisition strategy.

The Defense Systems Management College is using the F-16 acquisition program as a case study to teach acquisition strategy to program managers.

Without DOD criteria or a guidance on proven or preferred strategies for given situations, decisions on acquisition strategy depend on the education and experience of the project manager.

The Commandant of the Defense Systems Management College recently stressed the immediate need for DOD to further define acquisition strategy.

The Secretary of Defense should define acquisition strategy and emphasize its purpose, that is, applying the most effective management principles to acquiring weapon systems. Further, the Secretary should establish guidance on what to consider in formulating acquisition strategy and the criteria to be used for its evaluation.

OPERATIONAL TESTING

At the full-scale development/first major production decision point (Milestone II) in the system acquisition process, A-109 calls for selecting one of the alternative systems under consideration for final development if the mission need, program objectives, and system design concepts have been reaffirmed. A-109 calls for system performance to be tested during this phase in an environment of expected operational conditions and independent of the agency's developer and user organizations. Exceptions to independent testing may be authorized by the Secretary of Defense under such circumstances as physical or financial impracticality or extreme emergency.

Proponents of the need to reduce the length of time required to develop and field a weapon system have selected testing as an area where time may be saved in the acquisition cycle. For example, the Army directive on acquisition management authorizes operational testing to be combined with development testing earlier in the program if separation causes delay involving unacceptable military risk or unacceptable increase in acquisition costs. Although the intention of combining tests to achieve such benefits does not sound bad in theory, we believe these instructions conflict with A-109's objective of adequate weapon system testing.

The problem develops further with realization that funds for operational testing are under the control of the program manager, who is responsible for the total development program. When a time or cost squeeze develops in a program, testing becomes one area to examine for reducing the time or cost. Operational testing, which the program manager plans and funds but doesn't directly manage, becomes very susceptible to reduction and readjustments.

The Army's present Roland missile program is an example of where operational testing was squeezed into a brief period of the program schedule. Some operational tests were eliminated or consolidated with development tests and only a brief time was allowed for operational test data reduction and evaluation. Army officials maintained these changes were made after examination of the test plans, which revealed all of the planned tests were not necessary and cost savings could have been effective by reducing the number of tests. The program has been under strict cost restraints. A special Army study pointed out the need for greater dependence on the Roland's European testing in lieu of the reduced Army testing, but the Army has no control over the European test program. Therefore, the Army is dependent on what the seller says the results were. The problems created by reducing and

concentrating operational testing in this manner were confirmed when the Army found it necessary to ship the Milestone III production decision date to allow sufficient time for review of the test factors affecting the Roland production decision. 1/

While the opportunity to save time or money is attractive, reduction in system tests and particularly operational tests can be self-defeating. Independent operational tests are essential to prove that the weapon system the government is buying does in fact meet established requirements and can defeat the enemy threat.

TECHNOLOGY TRANSFUSION

A-109 and its accompanying Pamphlet No. 1, "A Discussion of the Application of OMB Circular A-109," encourage agencies to obtain the best concepts in choosing the system(s) to be developed and tested. Some industry officials have interpreted this to mean the services could transfer technology independently developed by one company to another, that is, technology transfusion--robbing the developer of the fruits of its own innovative effort. Such transfer was described by one industry official as having the potential to kill incentive, stifle creativity, and destroy competition.

His comment may be an overreaction to the principles of A-109. We have noted in some past reviews that DOD has gone to great lengths to prevent the disclosure of its contractors' proprietary data to competitors. A-109 guidance seems to cover this problem in stating that evaluation of industry's proposals should be managed so as to avoid technology transfusions.

FLEXIBILITY OF A-109 POLICY AND PROCEDURES

Several officials have stated that A-109 is a flexible document. Such comments usually arise when faced with difficult questions concerning A-109's application. The Defense Acquisition Executive commented on the flexibility of A-109 during congressional hearings and its flexibility was also acknowledged by the Administrator of OFPP.

1/The planned date for this decision has slipped further for other reasons.

Many variances occur in weapon system acquisition programs and not all programs, or even a majority of them, are alike in all respects. Good management systems usually require some degree of flexibility.

While it is too early to tell how closely DOD will be adhering to the concepts of A-109 in future acquisitions, the potential is present for abusing the flexibility which the circular allows. The flexibility should be in application, however, and not in intent to avoid inconveniences brought on by following A-109.

CHAPTER 5

CONCLUSIONS, RECOMMENDATIONS, AND AGENCY COMMENTS

CONCLUSIONS

Experience with Circular A-109 is too new and too little to assess its potential long-term effect on defense acquisitions. This is particularly true in the "front end" of the acquisition process--the determination of needs and identification of the best solution to the needs--since so few acquisitions have been started and none have been completed since A-109 took effect. However, some pertinent observations can be made.

- A-109's primary objectives of having agencies acquire major systems consistent with the agency's principal need will not be achieved until the Office of the Secretary of Defense shows more aggressiveness in defining Department of Defense missions and clearly delineating the services' roles. Essentially, each service has been defining its own missions and responsibilities and analyzing its mission needs accordingly. As a consequence there is no assurance that the highest priority needs from an overall agency viewpoint are being addressed.
- In a number of instances it has taken as long as 5 months for OSD to review and approve statements of need submitted by the services. Prolonged review could lead to some disenchantment with Circular A-109, which already has been challenged by some who see it as having a potential to prolong the system acquisition process.
- Research and development funds to finance solicitations to industry for alternate design concepts may become a recurring part of DOD's annual budget request. Up to now DOD has reprogramed funds to cover this cost.
- Implementation of A-109 in DOD has been spotty. The Army and Air Force have been the most responsive and have revised their basic directives on system acquisition to reflect the new policies. The Navy has not given it a high priority. OSD's response has generally been good. However, it has yet to extend the Circular's policy to military construction and is only now extending it to the acquisition of automatic data processing equipment.

- Additional OSD guidance to the services would be useful on aspects of A-109, such as joint mission analyses and devising a good acquisition strategy applicable to major weapon systems.

RECOMMENDATIONS

We recommend that the Secretary of Defense give further impetus to DOD's implementation of Circular A-109 by

- defining the DOD missions and the services role to make certain that the agency's highest priority major system needs are correctly identified;
- requiring the services to coordinate their mission analyses where they are assigned joint or related missions;
- making the necessary organizational and procedural changes to reduce the time for reviewing and approving service statements of needs;
- identifying in annual research, development, test, and evaluation budget requests the amount estimated to be needed to finance the exploration of competitive design concepts to meet approved needs; and
- directing the Navy to bring its system acquisition directives into line with Circular A-109 and implementing DOD directives.

AGENCY COMMENTS

We sent copies of our preliminary report to the Department of Defense and the Office of Federal Procurement Policy for their review and comment. OFPP declined to comment; DOD generally agreed with our conclusions and recommendations. The comments cited numerous actions for improvement that have begun or are under consideration. (See app. I.)

DOD, although acknowledging the need to show more aggressiveness in delineating missions for each of the services, says that the process is more complex than we believe it to be. DOD implies that the determination of its missions must accommodate differing views that exist within the Congress, the National Security Council, and the Defense organizations. DOD says that these differences tend to obstruct the application of A-109's principles.

Certainly, the views of the Congress and the National Security Council must be considered in formulating DOD's decisions. But we do not see why decisions on roles and missions cannot be made in the Office of the Secretary taking these views, as well as the views of the services, into account. If this is not done, the present situations in which there are overlapping missions between services, some duplication in the development of weapon systems, and higher defense costs than necessary could continue.

DOD also referred to sections of this report on pages 22 and 23 in which we state our concern that operational testing may be curtailed in an effort to shorten the acquisition process, and that this problem is aggravated by placing funds used for such testing at the disposal of the program manager who is trying to adhere to a set program schedule.

DOD maintains that testing is so managed as to insure its objectivity and adequacy to support a production decision. DOD believes the role of service using organizations and of testing agencies who are independent of the program manager insure that the program manager will not unilaterally change the test plan by reducing funds.

However, we are still concerned that the growing interest in combining development and operational testing presents the opportunity for less than needed operational testing being performed. In some of our reviews we have found that the program manager's control over all test funding places him in a position to exert great influence on the extent of testing to be performed regardless of other representatives and agencies.

The Roland Missile System test program cited in the report is a program that has undergone reductions for the number of tests originally desired by the Army. Schedule slippages and increases in program cost estimates have occurred and the potential of a need for future modifications to the system's equipment exists.

We believe the extent of operational testing performed should receive continued and careful examination as DOD takes steps to reduce the time required to develop and field a new system.



RESEARCH AND
ENGINEERING

THE UNDER SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

8 NOV 1978

Mr. J. H. Stolarow
Director, Procurement and
Systems Acquisition Division
General Accounting Office
Washington, D.C. 20548

Dear Mr. Stolarow:

This is in reply to your letter to the Secretary of Defense regarding a GAO report dated August 23, 1978, on "Implementation of OMB Circular A-109, Major Systems Acquisition Management by the Department of Defense," OSD Case #4989, GAO Code Number 951332. Your draft report analyzes policies and procedures used in the Department of Defense in the management of the major system acquisition process. It also evaluates DoD conformance to policies prescribed in OMB Circular A-109.

The report summarizes pertinent observations, and it recommends actions for the Secretary of Defense to take. Our responses to these observations and recommendations are contained in Enclosure 1. Other DoD comments regarding specific statements, references, and examples in your report are contained in Enclosure 2.

We appreciate the opportunity to comment on this report.

Enclosures
as stated

DoD Comments on Pertinent Observations
and Recommendations in GAO Draft Report
on DoD Implementation of OMB Circular
A-109, OSD Case #4989

A. OBSERVATIONS

1. The primary A-109 objective of having DoD acquire major systems consistent with its needs will not be achieved until OSD shows more aggressiveness in defining missions and delineating the roles of the services. Essentially, the services have been defining their own missions and responsibilities and analyzing their mission needs with the result that there is no assurance that the highest priority needs from the overall DoD point of view are being addressed.

Response: We recognize a requirement to be more aggressive in delineating missions that may be performed. As a result, we recently analyzed the mission area structure for research, development, and acquisition and plan to make appropriate revisions. Furthermore, an Under Secretary of Defense for Policy was recently appointed. One of his functions is to serve as a focal point for assessment of the DoD mission.

We believe, however, that the GAO observation indicates a somewhat limited understanding of the complex interrelationship between DoD's mission, how DoD organizations relate to those missions, and how the total management system is tied to those organizations. Differences exist within the Congress, the National Security Council, and to some extent between Defense organizations on missions and how limited dollar resources will be expended. There are in effect several levels of management governed by differing views which tend to obstruct application of A-109 principles. Viewing the problem as one of polarized Service vs OSD mission definitions and conceptions of mission need is too simple. On the other hand, there is no question that these missions and ultimately the President and Congress's views of their relative priority are a dominant influence on Defense resource allocations. Once a prevailing position on Defense's missions is arrived at, it is not a matter of creating a categorization into which only acquisition programs can be fitted. Since sixty percent of DoD funds are in the operating accounts, resource tradeoffs for all resources must be addressed.

2. Review and approval times for statements of need have been too long in a number of instances. This problem could prolong the system acquisition process unnecessarily.

Response: New procedures for processing Mission Element Need Statements (MENS) have been developed and are undergoing internal review at this time. We plan to reduce problems associated with the preparation of MENS by developing a better understanding of data required and by conducting working group meetings involving OSD and Service personnel when MENS are developed and processed. We also plan to reduce OSD response times by prescribing the maximum number of days that can be used in reaching decisions on statements of need.

3. Research and development funds to finance solicitations to industry for alternate design concepts may become a recurring part of DoD's annual budget.

Response: We are studying the probable funding requirements associated with investigative efforts associated with the concept development phase (between Milestone 0 and Milestone I). We anticipate an integration of fund requirements for these efforts into our annual Program Objective Memorandum and budget process.

4. OSD has not revised system acquisition related directives, other than the two basic directives implementing A-109, including some that were identified for revision in August 1976.

Response: With one notable exception, DoDD 5000.3, "Test and Evaluation," your observation is correct. However, we are currently reviewing all related directives to determine their applicability to the major system acquisition process as a prelude to a concerted effort to revise directives that are not in consonance with A-109 policy.

5. The Navy has not placed a high priority on revisions to their basic directives to reflect new policies for major system acquisition.

Response: The Navy revised its internal acquisition instructions with a covering memorandum dated February 18, 1977, transmitting copies of basic DoD instructions to its acquisition organizations. It is believed that actual implementation of A-109 was completed in a timely fashion.

6. OSD has not extended A-109 policy to military construction and only to a limited extent to ADPE.

Response: We acknowledge that A-109 concepts apply to ADPE and construction if their acquisition requirements are in the major system category. We will further emphasize the application of A-109 concepts in these areas.

7. Additional OSD guidance would be useful to the services on some aspects of A-109 such as joint mission analysis and acquisition strategy.

Response: DoD Directives 5000.1 and 5000.2 are being rewritten and will include guidance on these two matters.

B. RECOMMENDATIONS

1. Define DoD missions and roles of the services to assure that the highest priority major system needs are identified.

Response: A revised mission area structure has been completed which is intended to fulfill the intent of this recommendation. See paragraph A.1 above.

2. Require the services to coordinate their mission analyses when assigned joint or related missions.

Response: There are a number of joint efforts already underway (e.g., close air support, interdiction, tactical air reconnaissance, battlefield surveillance, and air defense suppression). Other joint efforts are being directed on a case-by-case basis (e.g., cruise missile development and air-to-air mission development). We believe that more joint analyses will result from our efforts to define more clearly the mission area structure.

3. Make necessary organizational and procedural changes to reduce the time for reviewing and approving service statements of need.

Response: See paragraph A.2. above.

4. Identify in annual RDT&E budget requests amounts estimated to be needed to finance the exploration of competitive design concepts and account to the Congress for the funds as they are used.

Response: We are attempting to resolve the problem of estimating costs for the exploration of competitive design concepts. When this problem is solved and a credible technique derived, we will include amounts for this purpose in our annual PPBS process and our Congressional budget requests.

5. Complete the OSD A-109 implementation plan of August 1976.

Response: Agree

6. Direct the Navy to conform its system acquisition directives to Circular A-109 and implementing DoD directives.

Response: The Navy's implementing directive has been prepared for release but is now being withheld pending completion of a revision to the DoD directives on major system acquisition. The Navy plans to conform their implementation procedures and publish their directive after revision of the DoD directives.

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