MAJOR AUTOMATED INFORMATION SYSTEM REVIEW COUNCIL (MAISRC)

GUIDELINES FOR PROGRAM MANAGERS

JUNE 1987

OFFICE OF THE SECRETARY OF DEFENSE

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, DC 20301-1100

COMPTROLLER

JUN - 1 1987

MEMORANDUM FOR ASSISTANT SECRETARY OF NAVY (FM)
ASSISTANT SECRETARY OF AIR FORCE (A)
DIRECTOR, INFORMATION SYSTEMS C4, ARMY
DIRECTORS, DEFENSE AGENCIES

SUBJECT: Major Automated Information System Review Council (MAISRC) Guidelines for Program Managers

Consistent with our agreed upon initiatives for strengthening the Department's management of ADP, I asked the OSD staff to develop a document for ADP program managers which provides further insight into our OSD ADP oversight review process.

The enclosed document has been developed with the input and support of many OSD staff offices, especially the Directorate of Acquisition and Logistics Information Systems. I trust that these guidelines will be helpful to your ADP program managers. Further, I believe that this document will help reduce the time and effort required by all our staffs in preparing and efficiently executing future MAISRC reviews. However, you should remember that these are guidelines and should be applied with good judgment.

Please ensure that distribution of these guidelines is made to ADP program managers, your ADP staff and other appropriate personnel. Additional copies will be made available through the Defense Technical Information Center (DTIC). If you have any questions on this document, please direct them to Mr. Harry E. Pontius, of my Directorate for Information Resources Management Systems, on 697-6954.

Robert W. Helm

Enclosure

Robert W. Helm
Assistant Secretary of Defense
(Comptroller)

MAJOR AUTOMATED INFORMATION SYSTEM REVIEW COUNCIL (MAISRC)

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Provides guidance to the Automated Information Systems Program Manager on the background and preparation for the decision reviews conducted by the Major Automated Information System Review Council (MAISRC) of the Office of the Secretary of Defense. Also contains an extensive management checklist which can assist in the development and management of automated information systems.

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FOREWORD

The Major Automated Information System Review Council (MAISRC) serves as the Department of Defense (DoD) senior management decision-making body for Automated Information Systems (AIS). This process needs to be understood by AIS Program Managers and component staffs in order for the MAISRC to complement our Life Cycle Management (LCM) policies set forth in Department of Defense Directive (DoDD) 7920.1 and Department of Defense Instruction (DoDI) 7920.2. Therefore, the Office of the Secretary of Defense (OSD) staff has prepared these MAISRC Guidelines for Program Managers' use and understanding. The Guidelines explain the who, what, when, where, and why of the MAISRC process.

The information presented should assist a Program Manager in better understanding and preparing for a MAISRC review. It has been our experience that well-structured, managed, and documented programs usually require little additional preparation for a review by the MAISRC. So, a program that does not adequately possess these qualities and adhere to the principles of LCM may encounter difficulties in preparing for and obtaining a successful milestone review. These Guidelines should help preclude the latter case.

It is recognized that program management and development is not a precise science and tailoring must occur. Therefore, the MAISRC management process has provisions to adapt these Guidelines to the specific nature of the program under review.

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INTRODUCTION

1.0 PURPOSE

This Guideline provides Program Managers with information about the Office of the Secretary of Defense (OSD) Automatic Data Processing (ADP) review process, focusing on preparation techniques and product formats required for an effective presentation. Its intent is to amplify Department of Defense Directive (DoDD) 7920.1 and Department of Defense Instruction (DoDI) 7920.2 by describing the details of the review process, the composition and roles of the Major Automated Information System Review Council (MAISRC), and issues that should be addressed to prepare for a successful review.

The MAISRC is not an end in itself. In simple terms, this senior DoD council is charged with looking at major resource investments in general purpose ADP systems at critical points in the development cycle. It is an active decision-making body — one that must issue a "GO" or "NO GO" on the basis of the facts presented before it. Accordingly, the council will want to review certain documentation to formulate their opinions. These documents consist of normal planning and control type documents usually required during system development by the prudent manager. Their presentation before the council should therefore pose little additional burden to the Program Managers (PM).

Past experience has shown that the MAISRC review can be more effective if the PM is provided with the right tools and assistance. This has been demonstrated by the steady improvement of both techniques and presentation formats of individual PMs with each subsequent appearance before the review council. The PM can better prepare for review after learning what the MAISRC does, how it operates, and what the PM's responsibilities are before the MAISRC. Therefore, a need exists to orient the new PM on the preferred techniques and formats so that he/she can participate in the review effectively at the onset of the program, rather than undergo a "baptism of fire" to attain familiarity with the process.

1.1 OBJECTIVES

The objectives of this Guideline are to:

- Provide an overview of the MAISRC review process (the who, what, when, where, and why);
- Outline the composition and responsibilities of the DoD's MAISRC;
- Encourage early and effective communication with the DoD staff to assist in review preparation;
- Identify the types of reviews a PM might undergo;

- Emphasize the need to identify and address problems early in the review planning stages so that they can be resolved quickly;
- Explain how the PM and staff can prepare for a DoD review; and
- Provide references to guide the PM through Life Cycle Management (LCM).

1.2 SCOPE

This Guideline provides assistance to the PM in preparing for the decision briefing regarding the life cycle development of the Automated Information System (AIS). Although there are two categories of reviews, a milestone review and an in-process review, this Guideline primarily focuses on the milestone review.

1.3 ORGANIZATION AND USE OF GUIDELINE

The contents of this volume are designed to point out to the PM those critical factors that must be addressed in each phase of development. While it is not all inclusive, it does discuss the most common areas of concern in typical life cycle development.

In addition to this introductory chapter, there are four other chapters in this Guideline. Chapter Two, "The MAISRC," describes the the purpose of MAISRC and the roles of its members and supporting staff. The chapter discusses the multi-phased LCM approach to administering the major AIS, and identifies the major decision points where decision briefings are required of the PM.

Chapter Three, "Dynamics of the MAISRC," combines the LCM and MAISRC processes and describes the preparation, conduct, and post-conduct stages of the milestone reviews.

Chapter Four, "Questions to be Answered," details specific questions the PM and staff should be prepared to address at each milestone to ensure the quality of the program and to support the MAISRC decision.

Chapter Five, "The Program Manager," provides a brief primer on the PM appointment process and the features of a typical PM charter.

The PM and key members of the PM's staff should review this volume in detail to become thoroughly familiar with the milestone review process. Additionally, Section 2.3 and Chapter Four should be periodically scrutinized for those phases of the life cycle which the program is undergoing. These sections will be of assistance in the review preparation phase.

CHAPTER TWO
THE MAISRC

2.0 BACKGROUND

The fundamental document that establishes major system acquisition policies for all of the governmental agencies is the Office of Management and Budget (OMB) Circular A-109, which identifies key decisions and outlines the logical sequence of activities in the acquisition process. The circular applies to a wide variety of major acquisitions ranging from systems required in production quantities and operated by the Government to unique or limited quantity systems, such as Automatic Data Processing (ADP) systems. The fundamental management principles conveyed are:

- Mission analysis;
- Early identification of mission needs;
- Competitive exploration of alternatives; and
- Key agency head decisions.

The Department of Defense (DoD) implemented the principles of Circular A-109 and published them in DoD Directive (DoDD) 7920.1, "Life Cycle Management of Automated Information Systems (AIS)." Included in this directive are those acquisition principles plus other processes that are termed "Life Cycle Management." Life Cycle Management (LCM) can be defined as the environment in which the PM will operate; it encompasses the time period from the program's inception to its eventual phase-out or replacement by a newer system. It emphasizes the need for the PM to develop and manage the AIS to meet the user's mission. LCM philosophy and its organized process are discussed in Section 2.2.

2.1 WHY THE MAISRC?

The use of information technology has expanded throughout all areas of DoD. Consequently, the information technology budget has risen dramatically. This in turn has resulted in the need for structured management oversight and prudent fiscal management in the acquisition of general purpose AISs. It is DoD policy to manage these acquisitions in a way that promotes the efficiency and effectiveness of those systems, and ensures meeting the functional need while conserving resources necessary to procure, operate, and maintain them.

2.1.1 What is the MAISRC?

The senior DoD ADP management oversight body for major AISs is the Major Automated Information System Review Council (MAISRC). This council was organized in the late 1970s to supervise the development of multimillion dollar AISs. Members of the council act in the name of the Secretary of Defense, and MAISRC approval is required before a program can advance beyond specific milestones.

DoD review and approval procedures for a major AIS development are contained in DoD Instruction (DoDI) 7920.2, "Major Automated Information Systems Approval Process." This document specifies that OSD reviews will be conducted at four key decision points, which are:

- Mission Analysis/Project Initiation (Milestone 0);
- Concept Development (Milestone I);
- Definition/Design (Milestone II); and
- Systems Development (Milestone III).

At these milestones, top-level DoD management has the opportunity to make critical mission requirement and investment decisions and provide the Program Manager (PM) with clear direction and authority for continuing with the development effort.

2.1.2 How Does the MAISRC Work?

The MAISRC functions as a special management review group operating under the authority of the Secretary of Defense with the responsibility to review major automated information systems. The procedures employed by the MAISRC are straightforward. The MAISRC Principals charge their staff to develop an analytical opinion on the quality and depth of the development plans. The first step is to ensure there is a recognized functional need or requirement to do something better or make a major change to an existing method. This need must be validated (Milestone 0) before the council gives approval for limited resources for an alternate design study. Once alternatives are analyzed, tested, and one is selected (Milestone I), the next major activity for the MAISRC is to examine how the PM plans to use resources to meet the need. Rather than "second guess" the program's direction, the MAISRC wants to ascertain that there is a disciplined systems engineering approach applied.

In 1983, the Office of the Secretary of Defense (OSD) streamlined the MAISRC approval process to allow for controlled decentralization to the military departments of system approval authorities. However, for the most part, the first two decision points (Milestones 0 and I) will be retained by OSD. The MAISRC may delegate all or some of the remaining decision authority to the DoD Components. The extent of delegation will depend on the quality of mission analysis and functional planning, the use of sound management practices, and the extent of competition. See ASD(C) memorandum, dated 23 June 1983, "Revisions to Major Automated Information Systems (AIS) Approval Process" (Appendix A). Other OSD delegations may occur as part of the annual update of the list of major automated information systems. This list contains one enclosure, which identifies select systems that are delegated to the Components for overall milestone approval authority.

2.1.3 When Does the MAISRC Take Action?

The MAISRC is charged with management oversight authority whenever general purpose ADP systems (including those exempt by the Warner Amendment) are classified as

"major." See Appendix B, which clarifies this authority. The DoD has classified any AIS, or revision of an AIS, as "major" when:

- Anticipated acquisition and development life cycle costs exceed $100 million from the first phase (mission analysis) through the extension and installation of the developed AIS to all sites; or
- Estimated costs exceed $25 million for a single year; or
- OSD designates the AIS as "special interest."

The Secretary of Defense in turn has charged the Components to design a senior executive review and approval process both for major AIS programs delegated for Component approval, and for nonmajor AIS projects commensurate with the estimated cost. ASD(C) memorandum, dated 13 August 1981, "Automated Information Systems Covered by Life Cycle Management Policies," explains the relationship with life cycle management and is included in Appendix C.

The House Appropriation Report for fiscal year 1986 provided more specific guidance to the Components in the discharge of their oversight responsibilities for those programs delegated by OSD. Accordingly, ASD(C) memorandum, dated 26 March 1986, "Management of General Purpose Automatic Data Processing (ADP) Systems" (Appendix D), stated each Component "should have an accountable, executive level review process in place and operating which includes full involvement of ADP, telecommunications, and functional management" based on the principles of DoDD 7920.1. The report further directed OSD to establish firm criteria for determining conditions wherein delegation should be revoked.

On 2 April 1986, the DoD Comptroller disseminated the revocation criteria as tasked by the House Appropriation Committee. See Appendix E for this memorandum. These seven criteria are:

- Program cost growth of 25% or more has developed for the overall program;
- Program schedule slippage of 6 months or more has developed for the overall program;
- The headquarters executive level review process is inadequate;
- Available program funding is significantly below approved program requirements, making the approved program unexecutable;
- Significant problems have developed in the execution of acquisition strategy and associated procurement actions;
- Program planning or execution conflicts with established DoD policy; and
- Other significant issues have developed that remain unresolved and jeopardize the success of the program.

Thus, the MAISRC is directly or indirectly involved with all major AIS developments. As the primary oversight body it conducts periodic milestone reviews where it approves, redirects, or recommends cancellation of the program. If oversight authority has been delegated, the MAISRC assumes a secondary, but not a passive role. It is still expected to keep abreast of the development activities, which it normally does through coordination with the Components and receiving "in-process" type reviews. (For a discussion of types of reviews see Section 3.2.)

2.1.4 Who Sits On the MAISRC?

DoDI 7920.2 outlines the membership of the MAISRC. Additional members were added as described in ASD(C) memorandum, dated 9 November 1984, "Designation of Principals for Major Automated Information Systems Review Council (MAISRC) Decision Meetings" (see Appendix F) and ASD(C) memorandum, dated 23 June 1986, "Independent Reviews to Support the Major Automated Information System Review Council (MAISRC) Reviews" (see Appendix G).

The MAISRC meets as needed and its composition is tailored according to the level of review, service, interest, and the type of function being supported by the system.

The Council consists of the following, or their principal deputies:

- Assistant Secretary of Defense (Comptroller);
- Assistant Secretary of Defense (Command, Control, Communication, and Intelligence);
- OSD System Sponsor (e.g., ASD (P&L) or ASD (HA) or ASD (FM&P));
- Component Assistant Secretaries (ADP/IRM official);
- Director, Program Analysis and Evaluation;
- Director, Operational Test and Evaluation; and
- Other OSD Principals identified by the MAISRC.

The OSD System Sponsor Principal represents the functional area supported by the AIS. This official has the primary lead in the initial stages of the review process, acting as Chairman of the MAISRC at the Milestone 0 milestone review. The System Sponsor will maintain close coordination with the Functional Manager of the Component seeking the major acquisition. The System Sponsor must be convinced that there is indeed a valid requirement and certify that it has been expressed correctly. Basically, the System Sponsor should ensure that the system being developed meets the requirements, is cost-effective, and technically viable. During later stages, the OSD System Sponsor is concerned with monitoring performance criteria, the test environment, system acceptance, and revalidation of the need throughout the LCM development cycle.

Each review session is headed by a Chairman who is responsible for facilitating the meeting, resolving questions, and ensuring that a memorandum is signed and distributed

to all concerned regarding the review's outcome. Following approval of the Milestone 0 review, the ASD (Comptroller) will sit as Chairman and coordinate all future reviews and decisions throughout the LCM process.

The Principals normally meet only at the actual review session in the AIS life cycle; however, their staff will prepare them in advance for the review. Based on information gained in the preparation, the Principals may choose other nonvoting people to attend the review, such as:

- Other OSD functional users of the AIS;
- Spokesperson for independent assessment activity;
- Other Component officials; and
- Action Officers (AO).

Each Principal may designate one of his/her staff as a Point of Contact (POC) who will represent the Principal in informal coordination activities, track system progress, and coordinate the views of the various subelements of the staff for that functional area. These POCs will meet with the PM and staff to prepare for the MAISRC review. The PM should remember that these individuals are responsible for preparing the Principals for the review. The more knowledgeable the AOs and Principals, the smoother the review.

At Milestone 0, one AO from the functional areas (System Sponsor) will be appointed as a "lead" who will be responsible for coordinating all preparations for the pre-MAISRC meetings as well as the formal review. In this capacity, the "lead" will work closely with the MAISRC Executive Secretary (a member of the Comptroller's staff) in the planning of the review. During all remaining phases, the lead will transition to the Comptroller's staff, specifically the Director of Information Resources Management Systems (IRMS).

A more detailed discussion of the AO's role is contained in Chapter Three.

2.2 LIFE CYCLE MANAGEMENT

AIS life cycle management is a process for managing an automated information system during its entire life. It is subdivided into five broad phases:

- Mission Analysis/Project Initiation;
- Concept Development;
- Definition/Design;
- System Development; and
- Deployment/Operation.

LCM emphasizes the need to develop and manage an AIS to meet the user's requirements, stressing competition in the acquisition process, sound financial management, and continuing mission evaluation. It strives to give the PM as much authority as possible and decentralizes the approving process as low as feasible.

The objectives of LCM are:

- Early "up-front" planning;
- Management accountability;
- Establishment of cost, schedule and requirement control mechanisms;
- High visibility through executive oversight; and
- Cost effective standardization.

LCM doctrine recognizes that should any part in the evolving system be altered, the remaining parts will be impacted in some manner. LCM seeks to maintain management, balance and discipline over these changes. Major AIS development programs often undergo requirement changes in the early stages. Unless these changes are brought under control, the program soon becomes unmanageable. Further changes can occur due to the high turnover of key personnel within the program staff. The transfer of these personnel causes a shifting level of perceptions of where the program is, and what the program intends to accomplish. Without disciplined documentation, management techniques would be applied against a moving baseline. Thus the prudent manager can provide this consistent framework by insisting on the maintenance of a thorough and accurate documented account of the system's acquisition and the evolutionary thought process which built the system. This is accomplished through disciplined documentation, including systems baselining.

The objective of LCM documentation is to provide the PM and staff with a valuable set of tools that clearly state program direction and planning. The documents are a record of both technical and user information to be used in guiding and coordinating the current work effort and planning the future development. They should be kept current by modifications made to each appropriate document any time an approved change has been made. Finally, they provide a degree of uniformity throughout DoD that facilitates outside inspection of the ongoing program.

While the review council may want to review various backup documents during the program's evolution, the PM must always maintain the following documents and submit them at each review:

- Mission Essential Need Statement (MENS);
- System Decision Paper (SDP); and
- Program Manager's Charter

DoD-STD-7935, dated 15 February 1983, outlines further documents to be produced during the life cycle of the system. Some of these may be requested by the OSD AO for review in preparing for a MAISRC review (per DoDI 7920.2). They are:

- Functional Description (FD);
- Data Requirements Documents (RD);

- System/Subsystem Specification (SS);
- Program Specification (PS);
- Data Base Specification (DS);
- Users Manual (UM);
- Computer Operation Manual (OM);
- Program Maintenance Manual (MM);
- Test Plan (TP);
- Test Analysis Report (TR);
- Implementation Procedures (IP); and
- Others as prescribed.

Early in the program, the PM must decide on those document types required as well as information about:

- The level of detail of each document type;
- When each is to be produced;
- Quality assurance;
- Provisions for document review and updating; and
- Who will prepare each document.

Table 2-1, LCM References, identifies major documents pertaining to acquisitions and the LCM process. The PM should obtain and be familiar with these documents since they describe the PM's environment and the rules that govern AIS development. Further, OSD memoranda concerning these topics are included as appendixes to this Guideline.

2.3 MILESTONE DECISION POINTS

Enclosure 2 to DoDD 7920.1 describes the four major milestone decisions during the system's life cycle. Before advancing to the next developmental phase, the PM must obtain DoD approval, or Service approval if the approval process has been delegated to the Component. The decision points will be briefly summarized in the succeeding paragraphs, emphasizing the major areas that the PM must address.

2.3.1 Mission Analysis/Project Initiation (Milestone 0)

The twofold purposes of this phase are to identify and validate needs expressed as functional requirements and to recommend the exploration of alternate functional concepts. It answers the question "What do we want?".

Specific concerns to be addressed at the Milestone 0 decision point involve:

- Quantifying the identified mission deficiencies and goals for improvement;
- Characterizing the current and projected environment;

TABLE 2-1 LCM REFERENCES

DoDD 7920.1 LCM of AIS	DoDI 7920.0 Major AIS Approach Process	Service Regulations
Defines Major AIS	System Decision Paper (SDP) Process	AFR 700 Series
Management Accountability	OSD Review and Approval Process	SECNAVINST 5231.1B
Roles and Responsibilities	Approval Relationships	SECNAVINST 5236.1
Life Cycle Phases and Policies	AIS Milestones and Tasks	AR 25-1
Mission Element Need Statement (MENS)		AR 25-5

- Estimating overall costs;
- Determining affordability constraints;
- Describing the system's needs with clarity and focus;
- Determining what needs can be satisfied within current capabilities;
- Establishing need priorities; and
- Determining the timing and urgency of the needs.

2.3.2 Concept Development (Milestone I)

This phase involves developing and evaluating alternate means to satisfy a mission need and to recommend one or more concepts for further exploration. It answers the questions "What are our plans to satisfy the need?", "What are the alternatives considered?", and "What do we recommend?".

Specific objectives to be addressed are:

- Defining alternate functional concepts;
- Weighing the risks of each workable concept;
- Selecting a concept based upon an adequate analysis that it will work;
- Developing a practical approach, to include demonstrations if required;
- Defining alternate architecture concepts;
- Developing an acquisition strategy;
- Conducting a cost-benefit analysis; and
- Determining an initial cost estimate.

2.3.3 Definition and Design (Milestone II)

The purposes of this phase are to define fully the system's functional requirements and to design a working AIS. It answers the question "Is the design satisfactory?".

At this decision point the PM must:

- Document and validate functional requirements;
- Weigh the risks of each alternate design;
- Select the best design;
- Validate ADP/T adequacy;
- Complete the economic analysis;
- Obtain sign-offs by functional proponent and technical managers;
- Develop a firm baseline for requirements, costs, and schedule; and
- Provide for full funding of the program.

2.3.4 System Development (Milestone III)

The purpose of this phase is to develop, integrate, test, and evaluate the ADP system and the total AIS. It answers the question "Is the system ready for deployment?".

At this key decision point the PM must address the:

- Completion of the development of the system;
- Adequate testing and evaluating of the system;
- Implementation planning;
- Current risk assessment and future risk management actions;
- Current requirements, costs, and schedule baselines; and
- Full funding of the program.

CHAPTER THREE
DYNAMICS OF THE MAISRC

3.0 THE REVIEWS

The Major Automated Information System Review Council (MAISRC) reviews are normally preceded by a Component review. As the two types of reviews complement each other, preparation activities for the MAISRC review should pose little additional burden on the Program Manager (PM). The goal of the process is to be constructive. Not all of the following activities are always required. What is essential is that early planning and communication occurs as a basis for smooth MAISRC processing of the program.

The PM should be prepared to present the program plans and analyses and decisions reached in managing the program. This should provide a basis for meeting the MAISRC requirements, providing they have been thoroughly accomplished and cover appropriate areas for analysis. The PM should see the review as an opportunity to validate the accuracy of program planning. The review should be approached by developing a logical presentation that stresses the analytical approach to the system's development. Backup data that might prove beneficial to the council's understanding of the program should be made available to the MAISRC staff well in advance of the review.

The following sections discuss briefly the DoD preparation, the actual conduct of the review, and the post conduct phase.

3.1 PREPARATION PHASE

The following serves as a general model of the sequence of events leading to a MAISRC. However, the sequence is tailored to the specific system. While having several events, the OSD preparatory phase is structured to minimize impact on the program office and at the same time allow for routine advance planning, which should significantly smooth the process leading to the MAISRC review and any program office workload. These meetings take place at the Action Officer (AO) level and the program office should be able to answer most of the expected questions from existing normal program documentation. Milestone Planning Meetings set the milestones or sequences of events leading to the MAISRC and are normally scheduled 4 to 6 months in advance to allow for an orderly progression to the MAISRC. If this is the first time a program has come before the MAISRC, there probably will be more meetings scheduled so that the PM and staff can orient the Office of the Secretary of Defense (OSD) AOs on the entire program.

About 1 month after the Milestone Planning Meeting, the PM should submit a System Decision Paper (SDP) outline to the OSD AOs, who will review it and provide comments to the PM for resolution in the SDP.

About 3 months before the scheduled MAISRC, the PM, the PM's staff, and the OSD will hold an informal status review to determine the progress of the preparations and readiness of the program to meet the MAISRC.

Approximately 10 weeks before the scheduled review, the PM should submit a draft SDP to the OSD AOs, who will again comment and return it 2 weeks later. The PM will have approximately 2 weeks to finalize the SDP and submit the final version 6 weeks before the scheduled decision meeting.

The OSD AOs will analyze the SDP and other program data and prepare issue papers for their own Principals. These issues will be shared with the PM to help resolve them prior to the MAISRC. Three weeks before the meeting, the AOs will hold a prebrief to review the PM's decision brief and decide if all the preparations are complete and all issues have been identified and resolved, if possible.

During this preparation phase, the OSD AO will review data and documentation from the PM that will be used to support a MAISRC decision. The AO will prepare a decision package (Blue Book) for each Principal, releasing the package approximately 10 days prior to the review. Three days before the review, the Principals will receive a prebrief from the Lead AO using the information contained in the Blue Book. Normally the contents of the Blue Book include:

- Purpose and type of review;
- Agenda;
- Attendee List;
- Background, containing a management summary of the program and current issues;
- Previous System Decision Memorandum (SDM);
- Program Milestones;
- Program Status;
- Program Funding;
- Congressional, Government Accounting Office (GAO), DoDIG concerns; and
- Briefing Charts.

3.1.1 The System Decision Paper

This program summary document should be presented to the DoD staff in final draft form approximately 6 weeks before the MAISRC meeting. This document will support both the DoD and Component reviews, coordination, and decisions. It should be kept current at all times and be resubmitted to OSD before each subsequent MAISRC review. The SDP is a management summary of the program as well as a decision paper. It represents a Component staff coordination position and becomes a contract document between OSD and the Component. The document will be tailored to the particular life cycle phase of the AIS-related issues and the specific decision needed to advance to the next stage of development.

Enclosure 1 to DoDI 7920.2 contains information on the SDP. As a minimum, it specifically provides for the following contents:

- Mission Element Need Statement (MENS);
- Program Management Plan (PMP);
- Acquisition Strategy;
- Logistics and Training Support;
- Resources (including a cost/benefit analysis); and
- Test and Evaluation Plan.

As the program evolves, the PM will put in place internal documentation that demonstrates the level of thinking, analysis, and planning put into the program. The following contains topics that should be in a well managed program and for which the PM may wish to make cross-reference in the SDP. These documents identify and illustrate the discussion of alternatives and rationale for their selection and also illustrate the level of planning for future phases of the program.

- PM charter;
- Alternate concepts and selection;
- Demonstrations;
- Architecture strategy;
- Functional requirements in priority;
- Support plans for:
  - Transition
  - Security
  - Contingency
  - Maintenance
  - Competition
  - Quality control
  - Validation/verification
  - Implementation
  - Site preparation
  - Procurement
  - Post deployment
  - Software conversion
  - Configuration management
  - Communications
- Most recent budget data;
- Risk assessment and management;
- Schedule management and milestones;

- Status of Life Cycle Management (LCM) documents;
- Interface requirements;
- Integration management;
- Economic Analysis;
- Standards/interoperabilities;
- Goals/objectives;
- Alternate designs and selection;
- Model/simulation considerations; and
- Pilot processing.

The SDP (which includes the MENS and PM charter) thus becomes the only specific new document required of the PM by the MAISRC. Because the PM will already have analyzed and documented these topical areas long before the milestone review, the work previously done can be summarized in the SDP and, if needed, can be included as appendixes.

3.1.2 Identifying and Resolving Issues

The PM should focus planning efforts on early identification and resolution of program issues. The primary function at the MAISRC review is to resolve issues and move the program forward, if possible. If the PM has resolved OSD issues beforehand, the review should be straightforward.

At the Milestone Planning Meeting, the OSD AOs and the PM should attempt to identify the issues, questions, and potential problems to be worked over the next few months. The OSD AOs and PM should work in harmony to ensure that issues have been identified, available options considered and the best option selected. If no decision has been reached and major risk is involved, then the PM must present all background data on the subject to the MAISRC for the Principals' decision. The PM should especially attend to concerns such as validity of data and sufficiency of analysis that might require lengthy time to resolve.

3.1.3 Mission Element Need Statement

The MENS provides the current statement of need and is revalidated or revised at each milestone. The PM will resubmit it to DoD along with other required MAISRC documents. It is a management document and its content is set forth in Enclosure 3 to DoD Directive 7920.1. The MENS also describes constraints that may influence the choice of solutions to meet the identified need. Further, the MENS contains cost and investment parameters and states the time required to satisfy the need.

Aspects that should be addressed include (1) priority of the need in relation to other Service needs, (2) limits on investment, (3) limits on recurring and operating costs, (4) standards and interoperability requirements, (5) critical interdependencies or

interfaces, (6) logistic and manpower considerations, and (7) security and wartime survivability.

Although the MENS can be submitted at anytime, it should be integrated with the Program Objectives Memorandum (POM) if practicable. The MENS is validated as part of the Component and MAISRC staffing process. Once the DoD approves the MENS, the OSD will write a System Decision Memorandum (SDM) to announce its decision. The SDM provides milestone approval for a major AIS and authorizes the DoD Component to start the next acquisition phase. After each milestone approval, the PM must update the MENS to keep it current.

3.1.4 Reaffirm Need

Both operational and developing systems undergo changes. Any large system requires periodic evaluations during its life cycle to determine its relevancy, effectiveness, and efficiency. Long-range plans can change due to modifications in function and technology; sometimes these changes can be both dramatic and sudden. Consequently, the PM must determine at each milestone whether the program's needs are still valid and whether the cost-effectiveness criteria remain the same.

If either or both are no longer valid, the PM must notify the Component and be prepared to explore new developments. In most cases, however, the needs and cost effectiveness will remain stable. The PM should positively state this reaffirmation in the updated MENS.

3.2 CONDUCT OF THE MAISRC

There are two levels of review that can be conducted to suit varying circumstances: the milestone review and the in-process review. Each will be discussed below. The make up of the review board will be tailored appropriately. The PM will be expected to address those issues outlined in Section 2.3 or others brought up during the OSD staff review process.

3.2.1 Milestone Review

The milestone review is conducted at one of the four milestone decision points. The purpose of a milestone review is to seek approval to proceed on to the next phase of the life cycle based upon results of activities from the past and plans for the future.

This review will be conducted by the MAISRC Principals (see Section 2.1.4). They will have received an earlier briefing on the purpose of the review, decisions that must be made, and issues that must be resolved. Any unresolved major issues that constitute major risks must be presented to the MAISRC. Based on the MAISRC review and SDP previously submitted, the MAISRC will issue an SDM approving progression to the next phase or directing future action.

3.2.2 In-process Reviews

In-process reviews generally cover program progress between major milestones or for any other needed review that does not fit the traditional milestone review. For example, if

a particular phase extends over a 3-year period, the MAISRC may want to be updated annually or semi-annually. However, the Chairman can order special reviews to evaluate or obtain data on a specific topic such as acquisition strategy, schedule slippages, or resource difficulties. The OSD principals may delegate certain in-process reviews.

3.3 POST MAISRC PHASE

Shortly after the MAISRC finishes its review, it will notify the Component of its decision and direction through an SDM, normally within 3 weeks.

3.3.1 System Decision Memorandum

The SDM documents the results of the MAISRC, provides program direction, and includes approval of program goals, cost, schedule, performance, supportability, test and evaluation, and standardization.

The Lead AO normally drafts and staffs the SDM, the MAISRC Principals and Chairman sign it, and the MAISRC sends it to the PM or the DoD Component. The SDM will summarize all key issues brought before the MAISRC, document decisions made, and provide guidance to be applied before the next MAISRC meeting. If the MAISRC believes that the program's oversight authority should be delegated to the DoD Component, the SDM will so state.

3.4 ADP ACQUISITION IMPROVEMENTS PROGRAM

OSD constantly strives to improve the management process by upgrading the quality of program management and program products. The most recent effort that focuses on these improvements is discussed in Appendix H.

CHAPTER FOUR
QUESTIONS TO BE ANSWERED

4.0 BACKGROUND

During the preparation stages for the Major Automated Information System Review Council (MAISRC) review, Action Officers (AO), and others assigned to assist the Principals of the Council, become familiar with significant amounts of background data about the major Automated Information System (AIS) program. Sample questions, which may be asked by both AO and Principals, are reflected in this Chapter.

These questions can be of use to all Program Managers (PM), regardless of whether they are undergoing a MAISRC. They can be used as a reminder or checklist to the PM to ensure that all issues have been considered and addressed. In the early stages the level of detail for each issue may not be great. As the concepts of the AIS come into focus and crystallize, the questions and answers can be expected to be more specific and the Principals will require the PM to provide explicit responses.

Some questions under the information categories tend to be repetitive in a useful way. Since there is a need for the PM to review each issue from its inception through its current state and beyond, the questions concerned should serve the PM throughout the development effort.

Table 4-1 depicts a matrix of information categories that should be addressed by the PM at different milestone decision points. Some of these must be addressed at each review: mission, needs, management, interface, costs, and resources. Two other information categories <u>not</u> specifically identified are included in several of the information categories; these are risk and schedule. Failure to list these individually does not lessen their importance; rather, it was determined that risk and schedule can best be addressed within the other categories.

The PM should also note that there is some overlap between the information categories. For example, questions concerning "costs" are also included in the "management" category.

The PM may note that some very important functions/products have been omitted. For example, specific Configuration Management (CM) questions do not appear in this Guideline. CM is omitted because the MAISRC considers CM to be more of a technical item than an issue that might affect the MAISRC. The MAISRC seeks assurance that there is an AIS CM plan in effect; it is less concerned with the mechanics of how it is being accomplished. The MAISRC wants to be assured that there is a consistent framework for the development effort and that disciplined and quality thinking has been given to the program.

TABLE 4-1 INFORMATION TO BE PRESENTED AT THE MAISRC

Information Categories	Milestone Decision 0	Milestone Decision I	Milestone Decision II	Milestone Decision III
Mission	X	X	X	X
Needs	X	X	X	X
Functional Requirements		X		
Management	X	X	X	X
Costs	X	X	X	X
Architecture		X		
Acquisition Strategy		X	X	X
Competition		X	X	
Resources	X	X	X	X
Training			X	X
Interface/ADP/T	X	X	X	X
Security	X	X	X	
Design		X	X	
Demonstrations		X	X	
Test and Evaluation		X	X	X
Transition		X	X	X
Integration		X	X	X
Implementation		X	X	X

4.1 MISSION

The following mission-related questions apply to milestones 0, I, II, and III.

1. What are the risks that can impair the organization from properly accomplishing the functional mission?
2. What is the peacetime mission that the ADP system will accomplish? What is the wartime mission? Describe the steps that must be taken to bring the organization and the system up to a wartime mission level.
3. Are additional interfaces required and identified for wartime conditions? Describe how these are to be satisfied.
4. Have any changes been made to the mission or are any changes contemplated for the near future?
5. What is the life expectancy of the proposed system? Describe the expected environment during the critical stages of the development effort.

4.2 NEEDS

These needs questions must be answered at milestones 0, I, II, and III.

1. What needs are currently being satisfied? What needs remain to be satisfied?
2. What deficiencies can be quantified in terms of time and money? Are there other means of quantifying the deficiencies?
3. What are the causes of the deficiencies (mission change, environment change, inefficiencies, technology, etc.)?
4. Do expressed needs arise from failure of the current system or more efficient mission fulfillment due to improved technology? Explain.
5. What backup facilities exist to ensure the current mission can be accomplished while the new system is being developed?
6. What means were taken to ensure that the stated prioritized needs do not include "nice-to-have" needs?
7. Are needs expressed in terms of functional requirements rather than in hardware-oriented terms?
8. Does the MENS address interim upgrades, urgencies, impacts?
9. What needs have changed since the last life cycle phase?
10. Has the MENS been upgraded? Describe all changes to the MENS and when they occurred. When was the last mission need affirmation?
11. Is the statement of need clear and focused?
12. What functional or mission benefits accrue from implementation of the new system?

4.3 FUNCTIONAL REQUIREMENTS

These questions must be answered at milestone I.

1. What are the functional goals/objectives of the new system?
2. Have all functional requirements been defined, quantified, and documented? Describe the procedures to ensure that these requirements are continually assessed and that the baseline is maintained.
3. What was the basis for the prioritization of the functional requirements?
4. Has a functional manager been appointed? What duties does this person have?
5. Describe the user's role in developing the functional requirements. Will the user have any role in determining functional satisfaction?
6. How will functional requirement satisfaction be determined? Describe the validation process.
7. What is the process for approving/disapproving functional requirement changes, additions, and deletions? Outline the functional manager's role in this process. Outline the PM's role in this process.
8. Who validated the initial functional requirements? Describe the actions taken to evaluate the alternate concepts/designs satisfying functional requirements.
9. To what extent has coordination been made with other functional managers regarding functional adequacy?
10. What steps have been taken to ensure the system can satisfy "surge" requirements? Have "surge" requirements been identified and quantified?

4.4 MANAGEMENT

These questions must be answered at milestones 0, I, II, and III.

1. What control mechanisms have been established to ensure that the AIS is developed, evaluated, and operated in an effective manner at the lowest total overall cost?
2. What provisions have been made to ensure that progress can be measured effectively and supporting data can be produced in a timely manner?
3. What development tools were considered and will be used to facilitate technical solutions to problems?
4. How will the feasibility of the new system design be determined? What will occur if the new system design is not feasible?
5. Describe the internal review procedures. Who will review for key criteria (portability, reliability, maintainability)?

6. Does the management plan identify organizational relationships and responsibilities for management and support during each phase?
7. Has independent verification and validation been considered? What was the basis for the decision?
8. What audits are scheduled or planned?
9. Have personnel been identified to oversee specific areas in acquisitions? Software development? Test and evaluation?
10. What tracking measures are used to ensure that milestone dates are met?
11. What procedures are used to monitor costs? How will costs be tracked?
12. What are the areas of greatest risk (technical, cost, schedule)? How will they be managed? What is the plan to reduce risk? What are the consequences if goals are not attained?
13. Have funding requirements been identified? Is the program fully funded? If not, why not?
14. How are support requirements established during each phase? How will they be monitored?
15. What management procedures will be used to control costs in the software development?
16. What are the expected tradeoffs among cost, schedule, and performance goals?
17. How is the program organized? Describe it.
18. Have provisions for processing "exercise traffic" been incorporated into the system requirements for "essential" systems?
19. How will the program take advantage of changes in technology that occur between now and deployment?
20. What is the Program Manager's authority and responsibility?

4.5 COSTS

These questions must be answered at milestones 0, I, II, and III.

1. What are the overall program cost goals? Identify and estimate the costs. How will cost performance be measured?
2. What are the acquisition cost goals? What is the rationale for supporting them? How will performance be measured?
3. Was a cost/benefit study performed on each workable alternative? How was this developed? Describe the review and approval process.

4. Was a detailed economic analysis performed on each alternate design? Were revisions made to the total program costs after functional and technical adequacies were confirmed?

5. Was an attempt made to analyze a return of investment? What were the results?

6. How will life cycle costs be developed and used in determining a "best buy"? Have costs changed since the last life cycle phase?

7. How is cost visibility being maintained? How are costs tracked?

8. What are the life cycle costs and benefits?

4.6 ARCHITECTURE

These questions must be answered at milestone I.

1. How do the building blocks (e.g., hardware, systems software, communications, data bases) interact in the chosen architecture?

2. How does the system architecture fit in with the Service architecture?

3. What were the alternative architectures? Why were they rejected? What were the dominant criteria leading to the selection of the designated architecture?

4. What were the costs and benefits associated with each alternative?

5. What are the risks associated with the selected architecture?

6. How will the architecture satisfy the Service needs?

7. In what environment must the architecture function?

4.7 ACQUISITION STRATEGY

These questions must be answered at milestones I, II, and III.

1. What are the goals and objectives of the overall acquisition strategy?

2. Must all functional requirements be satisfied at once? Is phasing conceivable? How can it be accomplished?

3. Has there been an effort to obtain or use other Government hardware/software/ telecommunication to satisfy the need in total, or in part?

4. Describe efforts to secure off-the-shelf software to satisfy requirements. Are there legal restrictions for modifying off-the-shelf or vendor software?

5. What were key considerations in your decision for or against equipment augmentation? equipment updates?

6. What is the program planning schedule for making acquisition decisions?
7. What are the risks associated with schedule? costs?
8. Has a plan been prepared for each item or service to be procured?
9. What is the extent of contractor involvement? How is this to be managed? Does the organization have the capability to manage contract support?
10. What is the Contracting Officer's involvement in the acquisition effort?
11. How will the acquisition strategy enhance competition?
12. Have evaluation criteria and standards to be used by the Source Selection Evaluation Board (SSEB) been fully developed prior to release of the RFP? Have operational test plans been developed and approved by the Service or the Director, Operations, Test & Evaluation?
13. What is the program development strategy regarding such issues as prototyping, phased development, phasing of acquisitions?

4.8 COMPETITION

These questions must be answered at milestones I and II.

1. Outline the program's competition strategy. How is true competition assured for each item to be procured? How will competition be sought, promoted, and sustained?
2. Has a competition individual been appointed to coordinate with the Contracting Officer?
3. How can the program be made more competitive?
4. What are the program's planned actions if only one response is deemed workable?
5. What are the contracting considerations for each acquisition as to options? warranties? deviations? multiyear procurement?
6. What procedures and cautions have been taken to preclude drafting the specifications in a restrictive manner?
7. What are the source selection procedures for each acquisition? Include timing for submission and evaluation of proposals.
8. What is the relative importance ascribed to a given vendor's ability to meet the mission needs in terms of schedule? cost? prior performance?
9. How much detail will the vendor be provided in the criteria to be used in the evaluation and selection process?
10. Were vendor briefings/orientations considered and given?
11. What is the composition of the evaluation team and what considerations were used in the selection of the team members?

4.9 RESOURCES

These questions must be answered at milestones 0, I, II, and III.

1. What methodologies were used to estimate resources?
2. What are the categories of personnel needed for the new system? Are changes needed in the Service training programs?

4.10 TRAINING

These questions must be answered at milestones II and III.

1. Describe your plan to train on-board personnel on using the new hardware, software. Are new skills involved? Outline the schedule, method, cost, sites, and equipment.
2. What are your plans to train the follow-on personnel?
3. What manuals/documents are planned for production? What is their publication schedule? Who will write them and who will maintain them?
4. What plans are there to train management?
5. How much in-house training is necessary? Who will conduct it?
6. How were training requirements determined?

4.11 INTERFACE AND ADP/T

These questions must be answered at milestones 0, I, II, and III.

1. Identify and document all interfaces and standards requirements with other systems. How are these being accommodated? Are any changes expected?
2. Describe the efforts to coordinate communications needs with appropriate DoD agencies.
3. What are the requirements as they pertain to standards? interoperability?
4. What is the strategy to identify and evaluate future ADP/T concepts and capabilities?
5. What is the criteria used to select among different ADP/T concepts?
6. What are the key interface issues to be addressed?
7. How have ADP/T considerations been integrated?
8. What ADP/T concepts were considered?

9. Has interoperability been planned for? What are the plans to migrate to Defense Data Network (DDN)?

10. What internal office serves as an ADP/T focus? What are its tasks?

11. What plans have been made to interface with industry?

4.12 SECURITY

These questions must be answered at milestones 0, I, and II.

1. What provisions have been made for backing up the system in case of natural or wartime disasters?

2. Describe the security requirements and outline the concept to ensure their protection (computer security, data security and privacy).

4.13 DESIGN

These questions must be answered at milestones I and II.

1. How does the new design ensure portability?

2. How does the AIS design facilitate ease of maintenance?

3. How are technical and functional audits assisted by the design?

4. Does the new design create any concerns about training? operations? schedule?

5. What were the reasons for deciding on a software redesign/conversion?

6. Describe the software maintenance plan. What tools will be used?

7. How much design/code can be retained from the old system? Does the new design consider reusability of code?

8. Will Ada be used for implementation? If not, why not?

9. How will changes be managed to ensure that hardware capabilities (capacity, memory, timing, etc.) are not exceeded?

10. How can you determine if sufficient memory and timing growth capacity have been incorporated? How were requirements determined?

11. What is the involvement of the software maintenance organization in the development and testing phases?

12. What is the criteria for verifying the conformance to standards of hardware/ software/telecommunication? How is this being accomplished?

13. What is your plan for evaluating and managing documentation? How will traceability be maintained?
14. Does the selected design satisfy all the needs? What was the basis for rejecting the other designs? What was the relative importance of technical, operational, and economic factors?
15. Does the design avoid obsolescence of computer equipment and software? How?
16. Does the new design employ required standards?
17. Does the design provide a capability for audit? Are functional and technical integration requirements specified?
18. What trade-off issues were addressed? What were the considerations leading to the decision?
19. What software engineering methodology will be used?

4.14 DEMONSTRATIONS

These questions must be answered at milestones I and II.

1. What demonstrations were considered in order to verify concept/functional satisfaction?
2. Describe the efforts to bound the function/concept for the demonstration. What are the constraints and assumptions?
3. Can functional performance baselines be adequately established? If not, can modeling and simulation assist in establishing functional performance baselines?
4. If no demonstration is necessary, has the concept been verified as sound; that it could perform in an operational environment and provide a basis for a final selection? What were the determining factors in concluding that a demonstration was unnecessary?

4.15 TEST AND EVALUATION (T&E)

These questions must be answered at milestones I, II, and III.

1. Have requirements for testing, evaluating, and certifying been identified for each alternative?
2. Has a testing manager been appointed? Who writes the Test Plan?
3. Describe the performance measuring criteria. How are data being obtained and how is performance being evaluated?
4. What testing tools are being used and/or being planned for?
5. Has consideration been given for independent testing? What were the key factors in your decision for or against independent testing?

6. Describe the program efforts for conducting the workload analysis. How are both current and projected workloads quantified and characterized? How will you ensure that the test data are representative of the total range of data?
7. Describe the program plan for the use of a Live Test Demonstration (LTD) or benchmark testing. Have personnel been identified and trained for this task? What special tasks must be performed?
8. Describe how the concept of early detection of deficiencies is being supported.
9. What sites will undergo testing? What is the basis for your decision?
10. What percentage of the errors discovered in testing were due to changing requirements versus programming errors? How is this being managed?
11. How will the overall system quality be determined?
12. What are your plans for correcting all deficiencies discovered in the testing process?
13. Has the delivered code been verified to conform to the original software design? Does the code satisfy the requirements?

4.16 TRANSITION

These questions must be answered at milestones I, II, and III.

1. What is your transition plan relating to hardware, software, and telecommunications?
2. What procedures have been taken to prepare the equipment site for the new hardware? What happens to the old hardware?
3. Have you considered the use of a pilot installation? If not, why not? If so, what are the goals of the pilot?
4. Describe your plan as it pertains to hardware acceptance, software acceptance, and telecommunications acceptance.
5. How will the status quo be maintained until transition time?
6. How will transition occur from contractor developer to Government? From Government to user?
7. When will turnover/cutover occur? What are the preliminary actions required?
8. What is the plan to transfer maintenance activities from the developer to the application maintenance activity? What is the plan to transfer operations and data base support to the technical support activity?
9. What are the plans to transfer documentation to the user and support activities?
10. How will software be supported in the field?
11. What contractor warranties exist? How will they be managed?

4.17 INTEGRATION

These questions must be answered at milestones I, II, and III.

1. What organization will integrate and coordinate the contractor development effort? Describe its roles and responsibilities.
2. What is the level of cooperation between contractors and government? How is this being managed?
3. Describe the technical and functional aspects contained in the program's Integration Plan.
4. How will hardware and software be integrated and tested? What are the plans and schedule for resolving integration problems?
5. What are the integration issues between the developing system and the system it will replace?
6. What are the integration issues between the developing systems and those systems external to it?
7. Are there divided responsibilities between the Government and the contractor(s) for system development? testing? implementation? If so, who is responsible for overall system integration?

4.18 IMPLEMENTATION

These questions must be answered at milestones I, II, and III.

1. What level of improvements are continuing to be made under the old system?
2. Who will draft lessons learned after deployment?
3. Have maintenance costs and support for overseas environments been considered? Have the maintenance plans been developed, approved, and costed?
4. How was technical adequacy validated? Who performed the validations?
5. What are the post-deployment plans for periodic re-evaluation of the new system? Will such re-evaluations be conducted piecemeal?
6. What is the phasing of hardware, software, and telecommunications into the production environment?
7. What is the assessment of costs actually experienced to these cost estimated at the onset?
8. What are the issues addressed in the detailed implementation plan?
9. What are your plans for creating and verifying the operational data bases(s)? What are your plans for creating and/or converting data files?
10. Have plans been made for delivery? test and acceptance? Is the schedule adequate? How much slippage can occur without seriously impacting on the development process?

CHAPTER FIVE
THE PROGRAM MANAGER

5.0 BACKGROUND

The Office of Management and Budget (OMB) Circular A-109 states that a Program Manager (PM) will be designated for each major system acquisition program and that the PM must "have an understanding of user needs and constraints, familiarity with development principles, and requisite management skills and experience." According to DoDD 7920.1, the head of the DoD Component must appoint, or approve the appointment of, a Project Manager and must write a charter specifying the PM's "authority, responsibility, and accountability for accomplishing approved program objectives." The PM should serve "long enough to provide continuity and personal accountability." These instructions are amplified in ASD(C) memorandum, dated 13 August 1981, "Automated Information Systems Covered by Life Cycle Management Policies" (see Appendix C). This Chapter discusses PM tasks and charter characteristics.

5.1 APPOINTMENT OF PROGRAM MANAGER

As soon as possible after the Mission Element Need Statement (MENS) has been approved, the Service should designate a PM. It is essential that the PM participate in the consideration of alternatives and thoroughly understand the constraints that may exist on planned demonstration and validity activities.

The PM provides continuity and direction to the program and should:

- Serve as the single official to provide daily direction, supervision, and control of the Automated Information Systems (AIS) and hold authority with responsibility
- Stay long enough to carry the AIS development from inception to operation or at least from one milestone to another;
- Be an experienced manager with a multidisciplinary background and the ability to communicate within the DoD Components, central management agencies, and Congressional committees;
- Have experience in applying information technology to functions similar to those addressed in the MENS;
- Have project management training such as the Program Managers Course at the Defense Systems Management College; and
- Have a fundamental grasp of DoD acquisition regulations, policies, and budgetary processes.

5.2 PM CHARTER

As a part of the appointment of a PM, the Service shall approve a formal charter delineating the PM's authority, responsibility, and accountability. This charter serves as a

written, individualized understanding between the PM and the oversight authority in the DoD Component. For major AIS developments, the charter should originate from the DoD Component head; for joint service AIS, the charter should originate from the Deputy Secretary of Defense or other OSD official. The charter should be reviewed periodically for currency and adequacy. The issuing agency retains the authority, responsibility, and accountability for any matter not specified in the charter.

Typically a charter should provide the following information:

- Name of the PM;
- Program mission;
- Reporting channels;
- Special reporting requirements;
- Interfaces and other agencies involved in the program;
- Support to be provided to the PM;
- Peculiar relationships not covered in regulations;
- PM's authority;
- Parts of program for which PM is responsible;
- Special instructions;
- Structure of PM office and PM organization; and
- Conditions under which the PM will phase-out of the project.

APPENDIX A

REVISIONS TO MAJOR AIS APPROVAL PROCESS

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

COMPTROLLER

23 JUN 1983

MEMORANDUM FOR SECRETARIES OF MILITARY DEPARTMENTS
DIRECTORS OF DEFENSE AGENCIES

SUBJECT: Revisions to Major Automated Information Systems (AIS) Approval Process

The life cycle management (LCM) policy for automated information systems was issued to improve the development and operation of large complex systems and to define a management process for the review and approval of these systems. The basic LCM philosophy of maximizing the functional utility of systems, and managing and costing systems from inception to termination remains sound, and this philosophy will continue to be stressed. At the same time, we believe the management process requires refinement, in light of the current Departmental thrust toward streamlining systems acquisition processes and strengthening planning and competition.

The attached guidance reflects revisions to the approval process for major automated information systems as described in DoD Instruction 7920.2, "Major Automated Information Systems Approval Process." In essence, the new guidance:

- Calls for more rigorous mission analysis and functional planning.

- Provides for a more streamlined acquisition process by reducing the number of OSD level reviews.

- Stresses increased competition in system acquisition strategies.

- Emphasizes the importance of using sound financial management practices.

One of our major initiatives during the next fiscal year will be to consider approaches for establishing a stronger linkage between the AIS decision process and the Planning, Programming and Budgeting System (PPBS). In this regard, we will continue to seek your views and comments through your representatives on the Information Resources Management Systems Council.

I request your cooperation in ensuring that the enclosed guidance is incorporated into your management process at all levels.

Vincent Puritano

Enclosure

VINCENT PURITANO
ASSISTANT SECRETARY OF DEFENSE
(COMPTROLLER)

GUIDANCE

A. SCOPE

1. This guidance applies to major automated information systems as defined in DoD Directive 7920.1, "Life Cycle Management of Automated Information Systems (AIS)," and the associated approval process as described in DoD Instruction 7920.2, "Major Automated Information Systems Approval Process."

2. DoD Components are encouraged to apply this guidance to other large information technology efforts.

B. OBJECTIVES.

The objectives of this guidance are to:

1. Emphasize the importance of performing continuing mission analyses and functional planning, and the integration of major AIS acquisition plans into DoD Component planning systems.

2. Promote increased competition in the acquisition of AIS software, hardware, and services through early identification of needs, early establishment of user and technical teams to prototype best solutions to needs, and the use of sound, systematic plans for satisfying these needs.

3. Streamline the AIS acquisition process by selective and controlled decentralization of systems approval authority.

4. Strengthen the use of sound financial management practices in the acquisition of AIS by encouraging the use of more comprehensive lease/purchase analyses and sound cost accounting and budgeting practices.

C. ACQUISITION MANAGEMENT PRINCIPLES

1. Improvements in planning and resources management shall be the basis for providing DoD Components at all levels with more autonomy and responsibility in AIS acquisitions.

2. The Mission Analysis/Project Initiation decision for a major AIS shall be retained at the OSD level. Consistent with the principle of controlled decentralization, the OSD staff may elect to delegate all or some of the remaining AIS milestone decisions to the DoD Components. The extent of delegation will depend on the quality of mission analyses and functional planning, the use of sound financial management practices, and the extent of competition. In support of this principle, DoD

Components are encouraged to further delegate approval authority to the lowest appropriate organizational level which is feasible and practical.

3. Reliance on industry and state-of-the-art system development tools for technical solutions to problems and competitive practices shall be used to the maximum extent practicable to ensure the cost-effectiveness and functional utility of systems. In this regard, the use of prototype systems is encouraged since they may assist in identifying the range of alternative solutions to the requirement.

4. Methods of financing AIS acquisitions shall seek to assure that systems are acquired at the lowest total overall cost (LTOC). Lease/purchase analysis shall be performed to assist in selecting the LTOC alternative. Purchase may be the best course when requirements are stable. When requirements are unstable and maximum flexibility is required, leasing arrangements may be the best course. However, long-term leasing usually will represent an inappropriate management practice.

D. MILESTONE DECISIONS AND APPROVALS.

1. In preparation for the Milestone 0 decision, DoD Components shall submit a Mission Element Need Statement (MENS) as described in DoD Directive 7920.1. The development of the MENS should be integrated in the Component planning, programming and budgeting process at the earliest time possible. The submission of the MENS may be made at any time; however, in the interest of early planning, it is advisable that the MENS be submitted in conjunction with the POM process, where practicable. Upon completion of the processing and approval of the MENS, a System Decision Memorandum (SDM) shall be prepared and become the means for communicating the OSD approval/decision, and for providing other appropriate guidance. The SDM will provide official sanction for a major AIS and authorize the DoD Component to initiate the next acquisition phase.

2. Approval at Milestone 1 will also be retained at the OSD level in accordance with DoD Directive 7920.1. However, this milestone decision/approval may be delegated to the DoD Component if (a) planning continues to be comprehensive and sound, (b) prototype action, as appropriate, has been taken to ensure the most effective alternative for the requirement has been selected, (c) the system continues to be developed within established schedules and costs, and (d) program management structure and acquisition strategy remain sound and stable.

3. Normally, Milestone II and Milestone III review and approval will be delegated to the DoD Components. Documentation requirements for these milestones shall continue to be developed and updated in accordance with DoD Instruction 7920.2.

4. Throughout the AIS development process, both the OSD and Component staffs should work to maintain the free exchange of information and open channels of communication regarding AIS progress and issues. The OSD staff will conduct selected reviews of information technology acquisitions and management under the Information Resources Management (IRM) Review Program, and review AIS resource requirements through AIS exhibits submitted in conjunction with the annual Information Technology Budget. Usually, OSD reviews will occur in the earlier phases of the AIS life cycle and provide a basis for further delegations. These reviews will focus on functional, technological and financial planning; program management structure; acquisition strategy; and telecommunications, security, and readiness/survivability requirements.

E. PLANNING AND MISSION ANALYSIS

A major factor in effective planning is continuing analyses of assigned mission areas. DoD Components shall conduct continuing analyses of their assigned mission areas to identify deficiencies, or to determine more effective means of performing assigned tasks. In conjunction with these analyses, DoD Components shall also keep regularly informed of industry advances and information technology trends to identify opportunities to take advantage of modern, cost-effective technology. Specific sources for technology assessments may include the five year plan, required by the Paperwork Reduction Act and published by OMB in consultation with GSA, and the National Bureau of Standards. Requirements for new AIS, or major changes to existing AIS, may be identified as a result of these analyses and assessments.

APPENDIX B

MANAGEMENT RESPONSIBILITY FOR GENERAL PURPOSE ADP SYSTEMS

THE DEPUTY SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

20 FEB 1986

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
UNDER SECRETARIES OF DEFENSE
ASSISTANT SECRETARIES OF DEFENSE
DIRECTORS OF THE DEFENSE AGENCIES
DIRECTOR OF THE JOINT STAFF, OJCS

SUBJECT: Management Responsibility for General Purpose Automatic Data Processing (ADP) Systems

During the FY 86 Appropriations Hearings, the Congress questioned the structure and process being employed by the Department to manage its general purpose ADP programs. While the Congress recognized the importance of ADP to the DoD, Congress did request that DoD review and consolidate its oversight structure for general purpose ADP.

Since I am satisfied that our Major Automated Information System Review Council (MAISRC) process is working well, I have determined that the policy responsibility for all DoD general purpose ADP systems shall be consolidated under the Assistant Secretary of Defense (Comptroller). I believe this clarifies and streamlines our OSD review process, and at the same time supports the goals of the Warner Amendment. The Under Secretary of Defense for Research and Engineering will continue to provide policy for computers embedded in weapons systems.

The ASD(C) will work in conjunction with you to ensure that a consistent management and policy framework exists to address this vital mission support area. The ASD(C) should immediately take those actions necessary to establish a single policy and oversight framework to manage DoD's general purpose ADP programs.

William H. Taft, IV

27219

APPENDIX C

AIS COVERED BY LCM POLICIES

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D C. 20301

13 AUG 1981

COMPTROLLER

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
DIRECTORS OF DEFENSE AGENCIES

SUBJECT: Automated Information Systems Covered by Life Cycle Management Policies

Strong project management during the entire system life cycle is an essential requirement of DoD Directive 7920.1, "Life Cycle Management of Automated Information Systems (AIS)." This requirement is intended to ensure that both developmental and operational AISs are well managed and that accountability is clearly affixed as a prerequisite to large resource expenditures.

The Defense Audit Service, in Report No. 81-075 on the implementation of DoD life cycle management (LCM) policies, found that the DoD Components were not establishing project managers and were having difficulty using the definition of an AIS in applying the policies to systems currently being managed. To remedy this, the Defense Audit Service recommended that more specific instructions be issued to:

- o Identify what should be managed under LCM.
- o Help distinguish between the end of an operational AIS's life and the start of a new AIS life cycle.
- o Provide guidance on chartering project managers.

The attached guidance provides more explicit guidance for the application of the policies and concepts in DoD Directive 7920.1. This memorandum also incorporates previous guidance on the appointment of project managers and the structure of project manager charters. Accordingly, my memorandum of April 20, 1981 on "Charters for Automated Information Systems Project Managers" is superseded and hereby canceled.

Mr. William B. Ritt, 697-9068, is the point of contact in my office for this policy guidance.

Jack R. Borsting
Assistant Secretary of Defense
(Comptroller)

Enclosure

13 AUG 1981

Enclosure

APPLICATION OF LIFE CYCLE MANAGEMENT POLICIES TO AIS DEVELOPMENTS

PURPOSE

This paper provides guidance on:

o Identifying automated information systems developments that must be managed under the provisions of DoD Directive 7920.1, "Life Cycle Management of Automated Information Systems (AIS)"

o Correlating the events that occur in the life span of such AISs to the life cycle phase requirements of DoDD 7920.1.

o Developing project manager charters and controls for monitoring AISs.

SCOPE

Life Cycle Management (LCM) Application. It should be noted that the LCM concepts and policies in DoD Directive 7920.1 apply to the management of all AISs irrespective of scope of the efforts or their dollar value.

Uniformity. These guidelines seek to unify LCM interpretations and achieve a rational, clear, and cooperative implementation of LCM policies across a spectrum of different types of AIS developments that are either major or non-major in scope.

AUTOMATED INFORMATION SYSTEM BOUNDARIES

Definition. An AIS is defined in DoD Directive 7920.1 as a "collection of functional user and ADP personnel, procedures and equipment (including ADPE) which is designed, built, operated and maintained to collect, record, process, store, retrieve, and display information."

The focus of managerial concerns, areas of emphasis, goals and the resultant achievement strategies varies among the DoD Components. Therefore, the term "automated information system" is deliberately defined in a general way to recognize and allow for decentralized managerial judgement in:

- o Organizing to accomplish DoD Component functions;
- o Devising means of performing the functions.

Segmentation. The initial and evolving segmentation of total DoD Component AIS resources into individual AISs is a matter of managerial judgement. Mission area analysis and the degree of design/management integration required to ensure effective and efficient mission performance determine how this is done.

AIS resources should be divided into managerially coherent groupings, which may vary considerably, e.g., a set of service centers supporting diverse users, a standard grouping of computer application programs, a multi-site grouping of standard hardware/software to serve a single mission.

An AIS, which represents an integrated entity from a design or acquisition standpoint and which supports a common mission, must not be divided into smaller AISs or projects in order to avoid life cycle management visibility and review.

MANAGEMENT OF CHANGE

The Life Cycle. In any general discussion of the LCM process, it is convenient and customary to depict the life cycle of an AIS in the linear fashion shown in Attachment 1 -- a life cycle with a beginning and an end. This permits some understanding of the various events and critical stages that ensue in the life span of an AIS.

However, the real-life situation is that existing AISs are continually subjected to change, usually in the nature of:

- o Functional changes -- new ideas or policies, new techniques or methods, new legislation, personnel turnovers, new responsibilities, new workload, etc.

- o Technological changes -- more advanced and efficient equipment, conversion to higher-order languages, installation of data base management systems, etc.

Thus, the life cycle is really a continuum. In most instances, the "function" being supported by an AIS is not terminated, but is dynamic and continuous. The AIS is changed to perform new mission-related functions or to perform the same general functions in an improved, more efficient manner.

DoD Directive 7920.1 recognizes this phenomenon by requiring that operational AISs be reevaluated on a periodic basis to assure continued cost/effectiveness.

Also, AISs that are being developed or redesigned must be assessed at each milestone to verify that the mission need is still valid and that the AIS meets cost/effectiveness criteria.

The LCM Process. Life cycle management is the process for administering an AIS over its entire life span. Thus, the system, comprised of all its parts, is what is managed. Any part, if altered in some way, will have some impact on the remaining parts of the AIS. Life cycle management aims at maintaining control over and managing these impacts in a disciplined manner so that efficient, effective, and operable AISs will result.

Life cycle management may be viewed from two perspectives:

- o a managerial decision-making process; or

- o a systems engineering discipline.

There may be many strategies for AIS revisions which bypass regular steps/actions in the systems engineering process, for example, by using existing ADP equipment "as is" or by using the marketplace to solicit off-the-shelf solutions. Nevertheless, the managerial decision-making process cannot jump over essential considerations of mission need, adequacy of requirements specification, or readiness for implementation.

Each DoD Component is encouraged to develop a schema of decentralized authority, indicating the organizational level at which AIS projects can be undertaken without the approval of a higher organizational level. This matrix chart should use dollar value ranges of effort or other considerations as criteria for such decentralization and should also indicate whether a full-time project manager is required for a non-major AIS.

TYPES OF AIS DEVELOPMENTS

New AIS Developments. The development of new AISs, i.e., automation of a function or activity that was previously done manually, fits the classic mold for application of life cycle management policies in the linear sequence shown in Attachment 1.

These instances require managerial consideration of all aspects of the life cycle from the beginning.

ADP Equipment Augmentation and Updates. Equipment change-overs may impact the remaining parts of an AIS. Each situation must be critically examined to determine whether the change can be managed in the context of the current life cycle phase or whether the AIS must be managed at an early phase or at the beginning.

a. An equipment augmentation is the acquisition of additional capacity or same-capacity replacement of existing equipment with faster, cheaper equipment. The requirement for additional capacity results from increased workload. It does not involve redesign or modification of functional specifications or software. Such acquisition, within the existing hardware/software architecture, is usually not a cause for going back to the beginning of the life cycle.

However, an augmentation should be carefully examined to determine if it is a superficial solution masking a more fundamental problem, i.e., an underlying need for system redesign. Redesign cases require managerial consideration of all aspects of the life cycle from the beginning (see section on "Software Modification and Redesign").

b. An equipment update is an action to acquire newer technology and make major changes in processing methodology, e.g., the conversion from batch to on-line interactive processing. Updates have significant impacts on all remaining parts of an AIS, e.g., software must be converted, functional procedures updated, operators retrained. These updates require managerial reconsideration of all aspects of the life cycle from its beginning (see section on "Software Modification and Redesign").

Software Modification and Redesign. Historically, most automated information systems are not terminated but continue to evolve through modification:

o When this occurs within the context of the initial concept for the AIS and does not cause the fundamental architecture or design to be redefined, a return to the beginning of the life cycle management process is not required.

o However, some systems have been so modified or have been overtaken by technological advances, so that a complete redesign is undertaken. Then, a restart of the life cycle from the beginning is necessary.

A strategy to acquire ADP capability which is based on a compatible hardware update and minimal system redesign may be initially least costly, but can often be relatively expensive over the entire life cycle because continued software modification costs will be incurred. However, a strategy to transition to new hardware, minimizing conversion and software redesign, will likely be the lowest total overall cost alternative if:

o Functional requirements are projected to remain relatively stable, and

o The software which supports these requirements is modern and well documented in accordance with DoD documentation standards, and

o The AIS fulfills the requirements of OMB Circular A-71 (Transmittal Memorandum #1) with respect to security.

A strategy to acquire ADP capability which stresses software redesign and compliance with national and federal standards may be initially costly. But, these costs may be offset by economies which can be achieved through fully competitive hardware procurements, lower future software maintenance costs, and easier future transition to hardware of a different manufacturer. This strategy is likely to be the lowest total overall cost alternative over the long term if:

o Functional requirements have not been reanalyzed for continued mission effectiveness.

o The current software is not consistent with new technological capabilities and is not written in a higher order language (e.g., ANSI COBOL 74, ANSI FORTRAN 77) and the documentation is incomplete;

o The current software does not fulfill the security requirements of OMB Circular A-71 (Transmittal Memorandum #1).

CONTROLS FOR PROGRESS MONITORING

Project Manager. A project manager should be designated and chartered for each AIS as soon as possible after the mission element need statement has been approved.

Installation of, or significant revision to, an AIS for multiple sites should be undertaken by a chartered project manager when:

- o standard software is to be centrally designed, programed, and maintained for all of the installations concerned
- o such procurement is justified on the basis of cost/effectiveness, operational efficiency, and a commonality of requirements.

Likewise, acquisition of ADP equipment for installation at designated service centers, supporting a wide range of users with diverse computer applications, should be managed by a chartered project manager. The justification for augmentation or update of ADPE/teleprocessing support can then be related to the consolidated, but separately identified, workload requirements.

The project manager of a major or joint-service AIS should devote full-time attention to the AIS and:

- o be designated as the single official to provide daily direction, supervision, and control of the AIS and be given authority commensurate with assigned accountability and responsibility.
- o have sufficient tenure to provide continuity to carry the AIS development from inception to operational status.
- o be an experienced manager with a multidisciplinary background and the ability to communicate within the DoD Components, central management agencies, and Congressional committees.
- o have experience in applying information technology to enhance functions similar to those addressed in the mission element need statement.
- o have project management training, e.g., for project managership of major AISs, preferably have satisfactorily completed the Program Managers Course at the Defense Systems Management College; for non-major AISs, preferably have satisfactorily completed the Project Management Course at the DoD Computer Institute.
- o have a fundamental grasp of DoD acquisition regulations and policies.

Project Manager Charter. The project manager charter, which is developed specifically for each AIS, serves as a written, individualized understanding between the project manager and the appropriate oversight authority in the DoD Component. This charter should set forth the responsibility, authority, and accountability of the project manager Typical charter elements are shown in Attachment 2.

o For major AIS developments, the project should be chartered by the Head of the DoD Component.

o Joint-service AISs should be chartered by the Deputy Secretary of Defense or someone designated at the OSD level.

o For non-major AISs, the project should be chartered by an official at the Military Department Assistant Secretary level or a comparable level in a Defense Agency, or by the Commander at a subordinate level where the AIS serves only that level.

Program Coordination. Requirements for the interface of two or more AIS developments may be of such importance, complexity and magnitude as to warrant the employment of special management arrangements. In such cases, the Head of the DoD Component should establish and charter program coordination offices.

o Each AIS within such a program should be budgeted separately and managed under the life cycle principles in DoD Directive 7920.1.

o Significant directly-identifiable program costs could be budgeted separately from those of the individual AISs in the program, e.g., program administration costs, cost of test-bed ADP equipment that will be used for testing software for a number of AISs.

The group of projects or "program" is not considered an AIS, per se. However, the total program should be reviewed at designated decision points, which have been specified in a program coordination management plan, to determine if the program and its AISs are progressing as planned. Because there will be a number of AISs within a program, the review points established for the program need not exactly correlate to the established milestones required for any of the AISs.

AIS Review Group. To ensure policy control during the entire course of an AIS development, a senior management review group should be formed to review progress and make decisions at each life cycle milestone decision point. This group is the decentralized adaptation of the OSD review structure contained in DoD Instruction 7920.2, "Major Automated Information Systems Approval Process."

o For major AIS development projects which would ordinarily meet the threshold for milestone approval at the OSD level, but which have been delegated for DoD Component approval, milestone approval should be accomplished by a group chaired by a Military Department Assistant Secretary or comparable level in a Defense agency.

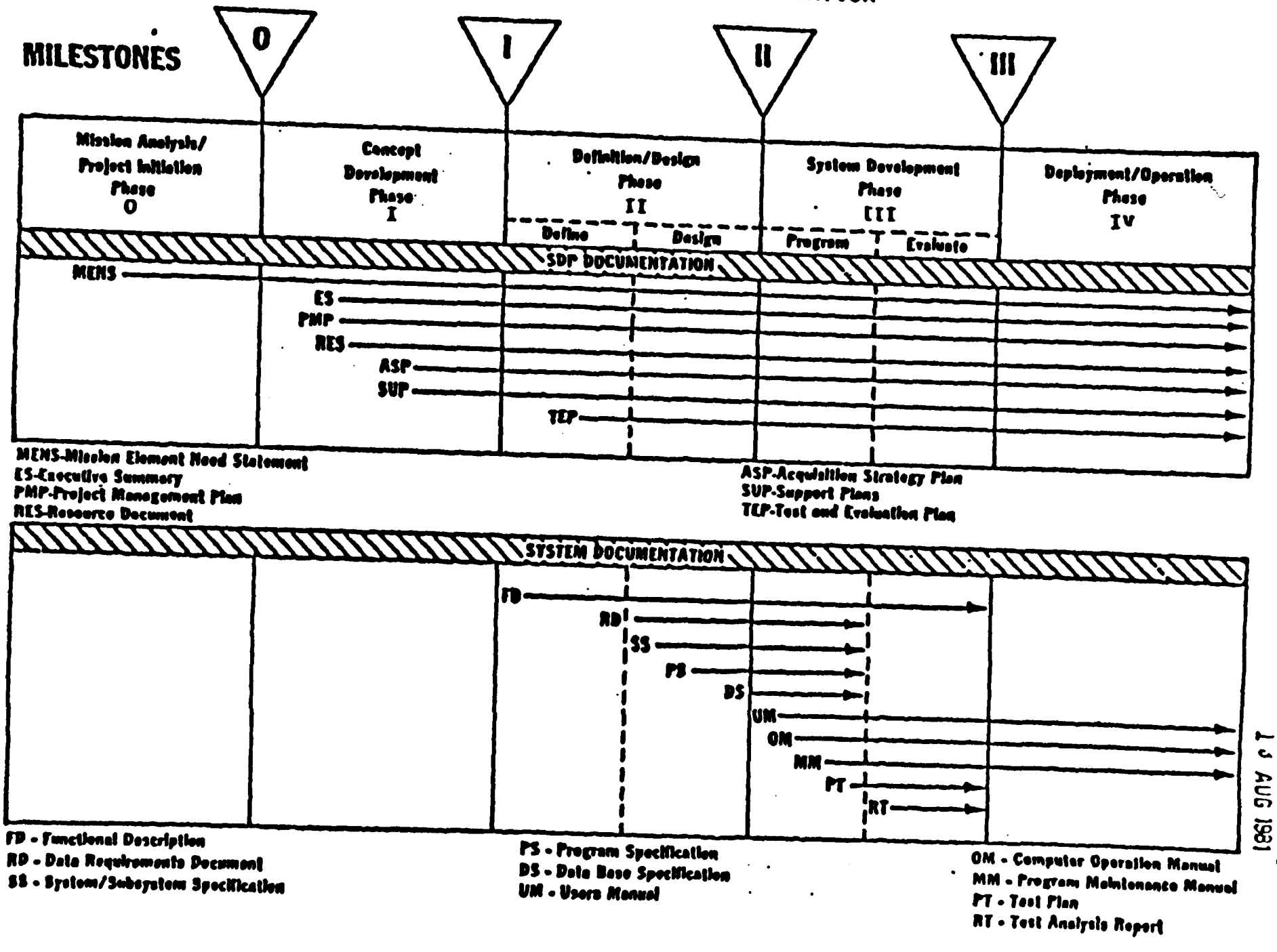
o For non-major AIS development projects, milestone approvals should be accomplished at a senior organizational level, commensurate with the life cycle cost of the project.

The group should be comprised of the appropriate level managers from the ADP and telecommunication areas and from the functional area(s) served by the AIS. Often, it may be beneficial to have representatives from other areas such as legal, auditing, and manpower, in attendance at milestone decision meetings when the need dictates.

Dependent on authority delegated by the Head of the DoD Component, the group should initiate, continue, redirect or terminate the project and should consider any strategic matters affecting the project; provide overall policy direction and reinforce both accountability and primary management controls. It should meet at each LCM milestone and at intermediate in-process review points, if the time between milestones is protracted.

LIFE CYCLE MANAGEMENT

PHASES - MILESTONES - DOCUMENTATION



15 AUG 1981

Attachment 2
13 AUG 1981

ELEMENTS OF A PROJECT MANAGER CHARTER

Careful attention must be paid to any unique characteristics of an AIS development project so that the project manager charter is tailored to the project being undertaken. The following areas typically represent the topics that must be considered in constructing the individualized project manager charter.

Project Identification

- Cite the title and the short name of the AIS. Names that give some ready reference to the function being served and the initial(s) of the DoD Component should be used.

- Specify frequency at which the charter will be reviewed and updated.

Mission and Objectives

- State in terms of mission need and cite extent of authority to consider all alternative solutions to fulfill the need.

- Delineate the scope of the project in terms such as, number of installations affected, boundary of the mission encompassed by the project, the specific function(s) to be excluded from the project, interface requirements, etc.

- State specific accomplishments to be sought, estimated timeframes, and deliverable end products required, for which the project manager is accountable.

Responsibilities and Accountability

- Project Manager

  - Provide specific detail that equates to a job description.

  - Include any special responsibilities that are peculiar to the project and any authorized waivers from current regulations.

  - Specify reporting and recommendatory responsibilities when cost, schedule, or technical performance thresholds are breached.

- Users
  - Cite responsibilities of user field activities and other commands or organizations within the DoD Component.
  - Specify source of requirements inputs from users and the process for modification of requirements by users.

Authorities

- Delineate, as applicable, the extent of latitude in:
  - Controlling project resources
  - Contacts with other Federal Agencies, the Congress, industry, etc.
  - Tasking other DoD Components and consummating interservice support agreements and memoranda of understanding
  - Creating subordinate offices
  - Obtaining consulting or commercial ADP services
  - Authorizing per diem, travel, and overtime
  - Signing Agency Procurement Requests to GSA and making sole source selection
- Define authority for performance appraisal of team members, designated to support the project management office, from a separate support organization.

Relationships and Channels of Communication

- Establish the channel of reporting for accomplishment of the project to include:
  - Reporting and approval levels for key milestones
  - Frequency and level(s) of progress reporting and internal team reviews
- Describe relationships to:
  - Chartering authority
  - Steering and advisory groups
- Establish a requirement for independent audit or assessment of economic analyses.

Organization and Location

- Indicate name and grade/rank of the Project Manager.
- Establish required makeup of the project management team and depict organizational chart of the project management office:
  - Functional or work breakdown assignments
  - Initial staffing
- Designate technical, administrative, and contracting support functions and user representation.
- Indicate location of project management office.

Project Transition/Disestablishment

- Specify event at which the project management office will be terminated or circumstances under which it will continue after the AIS project is developed and tested.
- Delineate hardware and software maintenance/ modification responsibility, if any, after the AIS project is installed.

APPENDIX D

MANAGEMENT OF GENERAL PURPOSE ADP SYSTEMS

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

COMPTROLLER

26 MAR 1986

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN, JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
ASSISTANT SECRETARIES OF DEFENSE
DIRECTORS OF THE DEFENSE AGENCIES

SUBJECT: Management of General Purpose Automatic Data Processing (ADP) Systems

The Deputy Secretary's memorandum of February 20, 1986, directed that my office assume consolidated policy oversight for all general purpose ADP systems. This action was taken to clarify and streamline the OSD ADP management and oversight structure for the Department.

There are three steps which should be taken quickly to begin this consolidation and meet Mr. Taft's guidance. First, all general purpose ADP systems will be expected to follow the Life Cycle Management Policy described in DoDD 7920.1. Second, all major general purpose ADP systems, including Warner exempt systems, subject to OSD review will be reviewed by the Major Automated Information System Review Council. Third, each Component should have an accountable, executive level review process in place and operating which includes full involvement of ADP, telecommunications, and functional management. This review process should be based on the principles of DoDD 7920.1 and should ensure that accelerated acquisitions are achieved by establishing a firm management base for each program. An effective Component oversight process is essential to achieving further streamlining through increased delegations.

While it is not practical to transition immediately ongoing Warner exempt programs to strict adherence to DoDD 7920.1, planning and implementation of this transition must occur as rapidly as possible. Other needed policy adjustments will be developed in the near future including: Warner Amendment determinations, delegations for management of intelligence and cryptographic systems, standards, and programing languages. We plan to act on these areas aggressively, but will do so in conjunction with your staffs.

We will be forwarding shortly, for Component review and comment, the newest list of major automated information systems for OSD and Component oversight. The list will reflect these basic consolidation actions.

Robert W. Helm

Robert W. Helm
Assistant Secretary of Defense
(Comptroller)

APPENDIX E

DELEGATION OF OVERSIGHT RESPONSIBILITY FOR AIS

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

COMPTROLLER

2 APR 1986

MEMORANDUM FOR SECRETARIES OF MILITARY DEPARTMENTS
DIRECTORS OF DEFENSE AGENCIES

SUBJECT: Delegation of Oversight Responsibility for Automated Information Systems

In the FY 86 House Appropriations Report, the Congress provided the DoD with specific guidance on Delegation of Oversight Responsibility for systems under review by Major Automated Information System Review Council (MAISRC). Congress indicated that it "expects each component to aggressively adhere" to certain specified management responsibilities and also to "ensure that requirements are valid and controlled, that the proposed program strategy is sound, and that implementation adheres to program schedule and cost goals."

Congress tasked the Office of the Secretary of Defense to establish a firm set of criteria for determining the conditions under which previously delegated management oversight authority should be withdrawn. These criteria are enclosed. They will be used to evaluate both program stability and the effectiveness of the oversight. In addition, it should be recognized that OSD will maintain the prerogative to conduct In-Process-Review(s) on selected programs while the Service or Agency continues its oversight.

Please take immediate steps to communicate these criteria to the appropriate organizations and program managers.

Robert W. Helm

Robert W. Helm
Assistant Secretary of Defense
(Comptroller)

Enclosure

CRITERIA USED TO SUPPORT DECISIONS ON WITHDRAWAL OF DELEGATED OVERSIGHT AUTHORITY

The criteria listed below are not intended to automatically result in a withdrawal of delegated oversight authority. Rather, a breach of the criteria will cause an OSD staff review of the relevant facts for each criteria area and the overall program situation. The staff findings will be shared with the relevant DoD Component and forwarded to the principals of the Major Automated Information System Review Council (MAISRC) for a decision on whether or not to withdraw the delegation.

1. Program cost growth of 25% or more has developed for the overall program.

2. Program schedule slippage of six months or more has developed for the overall program.

3. The headquarters executive level review process, as required by DoDD 7920.1, has not been adequate.

4. Available program funding is significantly below approved program requirements, making the approved program unexecutable.

5. Significant problems develop in the execution of the acquisition strategy and associated procurement actions.

6. Program planning or execution is in conflict with established DoD policy.

7. Other significant issues have developed which remain unresolved and which jeopardize the success of the program.

APPENDIX F

DESIGNATION OF PRINCIPALS FOR MAISRC DECISION MEETINGS

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

TROLLER

9 NOV 1984

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
UNDER SECRETARIES OF DEFENSE
ASSISTANT SECRETARIES OF DEFENSE

SUBJECT: Designation of Principals for Major Automated Information Systems Review Council (MAISRC) Decision Meetings

This memorandum responds to questions which have arisen on the designation of voting principals for MAISRC decision meetings. Inasmuch as automated information systems play a vital role in satisfying our mission requirements, active participation by the Military Departments in the MAISRC decision process is essential to insure that these systems meet the needs for which they are being developed.

A Secretary of a Military Department may designate a senior official, preferably no lower than Assistant Secretary, as a principal voting member when a program from that Service is before the MAISRC. This approach is consistent with that currently being used by the Defense Systems Acquisition Review Council (DSARC) and provides for increased participation by the Military Departments in the DoD's key decision processes.

If you have any questions regarding this matter, please contact Mr. Harry E. Pontius on 697-6954.

Robert W. Helm

Robert W. Helm
Assistant Secretary of Defense
(Comptroller)

APPENDIX G

INDEPENDENT REVIEWS TO SUPPORT THE MAISRC REVIEWS

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

23 JUN 1986

COMPTROLLER

MEMORANDUM FOR UNDER SECRETARIES OF DEFENSE
ASSISTANT SECRETARIES OF DEFENSE
ASSISTANT SECRETARIES OF THE MILITARY DEPARTMENTS (FM)
DIRECTORS OF DEFENSE AGENCIES

SUBJECT: Independent Reviews to Support the Major Automated Information System Review Council (MAISRC) Reviews

In early November of 1985, I met with the Assistant Secretaries of the Military Departments (FM) and we reached a consensus to implement six initiatives that would strengthen general purpose ADP acquisitions. The majority of the initiatives focus on supporting the program managers, but one initiative is aimed at strengthening the OSD MAISRC by incorporating the Directors of Program Analysis and Evaluation (DPA&E) and Operational Test and Evaluation (DOT&E) into the review process. Copies of memorandums of agreement for their participation in MAISRC reviews are attached.

The attached agreements should strengthen (1) cost and benefits analysis and (2) test and evaluation planning and execution for major automated information systems that require MAISRC milestone approval at the OSD level. These agreements supplement existing life cycle management policies until such time as those policies are updated.

My staff will work closely with the DoD Components, having major systems that are subject to an OSD MAISRC, to ensure that these agreements are implemented into the MAISRC process as rapidly and effectively as possible. Please designate a point of contact who will work with Mr. Ben Ritt of my staff on this transition. Mr. Ritt can be contacted at 697-9068.

John R. Quetsch

for Robert W. Helm
Assistant Secretary of Defense
(Comptroller)

Enclosures - 2

MEMORANDUM OF AGREEMENT

PA&E INVOLVEMENT IN THE MAISRC PROCESS

A. PURPOSE. This MOA describes the roles and responsibilities that Program Analysis and Evaluation (PA&E) will assume in the life cycle management of major automated information systems through participation in the Major Automated Information System Review Council (MAISRC) process.

B. OBJECTIVES. Involvement of PA&E in the MAISRC process will seek to strengthen the cost and benefit analyses at MAISRC reviews by ensuring that:

1. Cost and benefit estimates are adequate at each stage in the development of a major AIS, and program planning issues are resolved as early as possible.

2. The arrangements made to provide cost and benefit estimates are capable of providing objective and timely products.

C. BACKGROUND.

The life cycle management process uses a sequence of key decision milestones at which ADP program advancement is approved or disapproved. The significant elements of life cycle management are early planning, executive oversight, early determination of costs, and accountability.

A number of program cost problems and issues were coming to the MAISRC which should have been resolved earlier. Late detection of these problems interrupts program progress.

Consequently, a policy analysis was initiated to determine the source of these problems. The goal was to identify actions to strengthen the management of programs and accelerate the overall acquisition. During the course of analysis, the IRMS staff worked closely with the ADP program managers and the Military Department staffs in defining problems and developing proposed solutions.

The ASD(C) approved a series of six major initiatives to strengthen certain aspects of ADP acquisitions. The program of initiatives has two major goals: accelerating ADP acquisitions and ensuring a firm management base for each program.

- Five of the six major initiatives are focused on support of the program manager in the execution of his responsibilities.

- The sixth is focused on strengthening certain aspects of the MAISRC activities by including PA&E in the MAISRC process. This participation is expected to help the MAISRC avoid past problems associated with cost and benefits information.

D. MAISRC ACTIVITIES AND RESPONSIBILITIES FOR PA&E.

1. The Director, PA&E will be a Principal member of the MAISRC. For all MAISRC's this PA&E membership entails:

a. Cost Analysis. PA&E will provide a critical review of cost estimates.

b. Benefits Analysis. When the MAISRC chairman does not designate some other organization for benefit analysis, PA&E will provide an action officer to review benefits and cost/benefit analyses.

c. Review Documentation. PA&E will provide staff reviews for the incoming System Decision Paper and for the outgoing System Decision Memorandum.

2. PA&E Involvement at specific milestones will be:

a. At Milestone 0 (Mission Element Need Statement), to provide the MAISRC with a written assessment of whatever cost and benefit data are submitted at this milestone.

b. At Milestone I (Concept Development), to provide to the MAISRC a written assessment of:

- o The validity of the resource investment and benefits estimates for the selected alternatives, and of their consistency with any stated constraints.
- o The adequacy of estimates of costs for training, logistical support, and operational test and evaluation.

c. At Milestone II (Definition and Design), to provide to the MAISRC a written critical review of:

- o The economic analysis prepared by the program manager and/or an independent agent.
- o The life cycle cost estimates for the system.

d. At Milestone III (System Development), to provide to the MAISRC a written assessment of the degree to which:

- o The system is cost-effective and affordable and remains the best alternative.
- o Trade-offs have been made to balance cost, schedule, and performance effectively.

o Life cycle cost and budget estimates are realistic and acceptable.

3. DoD Component program managers will be required to present cost estimates and benefits analyses in accordance with the attached annex.

E. DURATION. This Agreement will be in force until July 1, 1988, unless the MAISRC Principals mutually agree that a revision is necessary or until there is a modification in Life Cycle Management policy and these roles are incorporated into that revised policy.

Approved:

for ROBERT W. HELM
Assistant Secretary of Defense
(Comptroller)

Date: June 23, 1986

DAVID S. C. CHU
Director, Program Analysis
and Evaluation

Date: 18 June 1986

Annex

Procedures for Presentations

PREPARATION AND PRESENTATION OF MAJOR AIS COST ANALYSES AND BENEFITS ANALYSES

A. OBJECTIVE AND ORGANIZATIONAL RESPONSIBILITY

1. The basic objective of the DoD Component presentations to the PA&E cost and benefits analysts is to explain in detail how the independent and program office estimates of costs and benefits were prepared. This will permit the analysts to give the MAISRC an assessment of the benefits the AIS is expected to provide, and of its cost, and of the methods used to forecast those benefits and costs.

2. Independent cost and benefit analyses should be prepared by an organization separate from the control and direction of the program or project office that is directly responsible for the acquisition of the system being reviewed.

B. SCOPE OF INDEPENDENT ANALYSIS

1. An independent cost analysis should be prepared for each alternative that will be presented to the MAISRC. A complete description of these alternatives should be provided as part of the backup documentation.

2. The independent analysis should provide a projection for all elements of life cycle costs to include resource investment and the costs of training, logistical support, and, when appropriate, operating costs.

3. When program alternatives have different useful operational lives, the costs should be expressed as an equivalent annual cost or put into some other comparable form.

4. The independent cost analysis should separately show both prior year expenditures and projected costs by cost element.

C. ANALYTIC METHODS

1. The rationale and procedures used to make independent cost estimates shall be explained fully.

a. When analogy sizing/costing techniques are used, the methods by which cost information was acquired and adjusted are to be documented. If the adjustments involved judgments, as in the use of complexity factors, the basis for the judgments, including the backgrounds of the persons making them, are to be presented.

b. When standard or commercial estimating products are used, the means of developing inputs to those products, including the backgrounds of the persons who made any

qualitative ratings used as inputs, will be presented, and the inputs themselves will be presented fully.

c. When cost estimation relationships are used, their specific forms, statistical characteristics, calibrating databases, and the assumptions used to apply them will be presented fully.

2. Quantification of uncertainty by the use of probability distributions on cost or schedule is strongly encouraged, as is the use of interval estimates. The probability distributions and methods used to prepare interval estimates should be provided.

3. The sensitivities of projected costs to critical assumptions should be examined and the results presented to the cost analyst.

D. PRESENTATION OF COST RESULTS

1. A brief overview of the program to include a description of the undertaking, the hardware and software involved, program status, procurement strategy (such as, contracting approach, and production schedules) should be presented.

2. A brief description of each alternative to be presented at the MAISRC should be discussed, with the preferred alternative highlighted.

3. The Program Manager or representative should present estimates for each alternative under consideration and explain how they were derived.

4. The independent cost estimates for each alternative should be presented, with an explanation of how they were derived. The independent estimates will be compared with the Program Manager's estimate by cost category, and significant differences examined in detail.

5. The investment estimates should be shown in both constant and current dollars. Operating and support costs estimates should be shown in constant dollars. The constant dollars should be as close as possible to the present budget year.

6. For purposes of comparing independent estimates with the Program Manager's estimates, the same assumptions, such as, funding schedule, delivery schedule, escalation, and outlay rates should be used. If the independent analysis team does not believe the Program Manager's assumptions are valid, this fact should be identified and its impact calculated.

7. If the Program Manager's estimate is validated and found to be reasonable, the basis for reaching this conclusion must be presented.

E. PROCEDURES FOR PRESENTING A COST ESTIMATE

1. Briefing of cost estimates will generally adhere to the following time schedule unless other arrangements are made with the cost analyst:

a. Within 25 working days prior to a MAISRC milestone review, the PA&E cost analyst will meet with the DoD Component representatives and agree on the agenda for a presentation of the cost estimates.

b. At least 20 working days prior to the MAISRC, the DoD Component shall provide the PA&E cost analyst on an informal basis, two copies of the information and analysis that will be used as the basis for the cost briefing.

c. At least 15 working days prior to a MAISRC milestone review, the formal presentation of the DoD Component's independent cost analysis and program office estimates shall be made. Copies of the briefing charts, the briefing text (if one is used) and a summary report of the estimates shall be made available at the time of presentation.

3. The specific assumptions and calculations used to derive the independent and the Program Manager's cost estimate for each alternative are to be made available.

4. The DoD Component's organization staffs preparing the cost analyses shall maintain a close liaison with the PA&E cost analyst during the review process to ensure full understanding of the DoD Component estimates.

5. PA&E's final cost report to the MAISRC will be made available to the appropriate DoD Components at the time it is sent to the MAISRC. Appropriate PA&E staff will be available to discuss its analysis and conclusions fully at that time.

F. PROCEDURES FOR A BENEFITS ANALYSIS PRESENTATION

1. At least 25 working days prior to a MAISRC milestone review, the benefits analyst will meet with DoD Component representatives and agree on the agenda for presentation of expected benefits. This meeting may coincide with the meeting to set the agenda for presenting cost estimates, described in paragraph E above. With the agreement of the cost analyst representative, the benefits analyst may require a presentation of benefits to be integrated with the presentation of cost estimates.

2. In all cases, the DoD Component will provide the benefits analyst with an appropriate point-of-contact to discuss benefit estimates at the several milestones as follows:

At Milestone 0: to discuss the mission deficiency that is to be presented to the MENS, as well as any estimated benefits that will be used in the MENS to justify exploring automated information systems to remedy the deficiency;

At Milestone I: to discuss the cost-benefit analysis in the Resources Annex of the System Decision Paper (DoD Instruction 7920.2, Enclosure 1, Paragraph B.2.e);

At Milestone II: to discuss the economic analysis required by DoDI 7920.2, Enclosure 2, Paragraph C.2.b, as well as updates to the Resources Annex of the System Decision Paper;

At Milestone III: to discuss the DoD Component's most recent benefits estimates, as reflected in updates to the system's economic analysis and to the Resources Annex of the System Decision Paper.

MEMORANDUM OF AGREEMENT

DOT&E INVOLVEMENT IN THE MAISRC PROCESS

A. PURPOSE. This MOA describes the roles and responsibilities which Operational Test and Evaluation (OT&E) will assume as part of the Life Cycle Management of Major Automation Information Systems through the Major Automated Information System Review Council (MAISRC) process.

B. OBJECTIVES. DOT&E involvement in the MAISRC is intended to strengthen the test and evaluation aspects of MAISRC reviews by ensuring that:

1. Test and evaluation management structures support independent and objective test and evaluation activities.

2. Early test planning is adequate and helps to resolve early program planning issues.

3. Test execution and evaluation reports provide meaningful assessments of the program status.

C. BACKGROUND.

The move to incorporate the DOT&E organization into the MAISRC process grew out of the ADP Acquisition Improvement Analysis directed by the ASD(C) in the spring of 1985. The analysis was prompted by the fact that the ASD(C) perceived that there were a number of problems which were coming to the MAISRC which could have, and should have, been resolved earlier.

As a result of that analysis effort, several important conclusions were reached. Probably the most important conclusion was that delays in acquisition appear more related to the program management staff's lack of experience or difficulties in completing certain needed tasks successfully than to perceived problems with the acquisition process itself.

The ASD(C) approved a series of six major initiatives to strengthen certain aspects of ADP acquisitions. The program of initiatives has two major goals: accelerating ADP acquisitions and ensuring a firm management base for each program.

- Five of the six major initiatives are focused on support of the program manager in the execution of his responsibilities.

- The sixth is focused on strengthening certain aspects of the MAISRC activities. The initiative to include

DOT&E in the MAISRC process is part of this last initiative area. Through incorporation of DOT&E it is anticipated that certain past problems associated with incomplete testing information or other problems with test planning and execution will be avoided.

D. MAISRC ACTIVITIES AND RESPONSIBILITIES FOR DOT&E.

The following represent the basic activities and responsibilities. The specific degree and form of involvement will be dependent on the needs of a particular program.

1. FOR ALL MAISRC's

a. Be a Principal member of the MAISRC.

b. Provide staff review and processing support for the incoming System Decision Paper and for the outgoing System Decision Memorandum.

2. WHEN A PROGRAM HAS SIGNIFICANT OPERATIONAL TEST AND EVALUATION

At Milestone 0 and, in some cases, at Milestone I, DOT&E will review the operational nature of the AIS being procured and will determine if DOT&E oversight of the AIS operational test and evaluation (OT&E) program is required. When DOT&E oversight is required, the System Decision Memorandum or Mission Element Need Statement approval will so state and will direct the preparation of a Test and Evaluation Master Plan (TEMP) following the appropriate guidelines of the TEMP Procedures Manual (DoD 5000.3 M-1). DOT&E will then assume a leadership role in the review of operational test planning, test execution and test results assessment and will specifically:

- Approve the Test and Evaluation Master Plan (TEMP) that is developed for Milestone I.

- Approve the test and evaluation organizational structure of the group assigned to plan, conduct and report on the operational test and evaluation.

- Approve operational test plan adequacy prior to test commencement.

- Observe testing as required.

Provide a formal assessment to the MAISRC as well as any reports to the SecDef or others that may be necessary.

3. DOT&E will assume its basic responsibilities in the Major Automated Information System Review Council within existing resources. When "full" DOT&E involvement is required on a program, then temporary additional staffing will be needed with a user or "operator" from the mission or business area which the system will support.

E. DURATION. This Agreement will remain in force until its provisions are incorporated into DoDD 7920.1 and DoDI 7920.2.

Approved:

for _____
ROBERT W. HELM
Assistant Secretary of Defense
(Comptroller)

Date: June 23, 1986

_____ 16 JUN 1986
JOHN E. KRINGS
Director, Operational Test
and Evaluation

Date: _____

APPENDIX H

ADP ACQUISITION IMPROVEMENTS PROGRAM

ADP ACQUISITION IMPROVEMENTS PROGRAM

H.1 INTRODUCTION

Recently, the Office of the Secretary of Defense (OSD) conducted a study to look into the Automatic Data Processing (ADP) management process and identify policy areas that require adjustments to accelerate acquisitions and, at the same time, ensure a firm management base for the development of the program. Previously, delays in major acquisitions were occurring because issues were not being identified and resolved early in the development cycle. Examples of these unresolved issues were:

- Acquisition strategy inappropriately limited competition;
- Key alternatives to technical architecture/acquisition strategy had not been evaluated; and
- Testing was not completed prior to deployment.

The Department of Defense (DoD) study found that Life Cycle Management (LCM) policies cover the areas in question, but a certain amount of confusion resulted from misinterpretation of DoD policies. Causes for this confusion were due to the complexity of the concepts and issues surrounding the development of the functional concept/ technical architecture, acquisition strategy and risk assessment, combined with the relative inexperience and training of the Program Managers (PM). Further, problems were encountered in understanding the status of testing and the stability of costs and schedules. Lastly, difficulties were encountered in specific planning products (e.g., Mission Element Need Statement (MENS), acquisition strategy) because the contents and form were unclear to the OSD.

On the basis of these findings, DoD concluded that:

- Difficulties reside in specific program areas rather than with the LCM process itself;
- Inadequate experience/education of the management staff contribute to the problems and delays; and
- Assistance/support must be provided to the management team if goals are to be achieved.

Accordingly, OSD developed several management improvement initiatives to strengthen the quality and timeliness of major ADP acquisitions. Five of these initiatives focused on supporting the PM and staff, while one initiative was targeted to assist the Major Automated Information System Review Council (MAISRC)

H.2 THE PROGRAM MANAGEMENT INITIATIVES

The first initiative was accomplished in November 1985, and consisted of providing the Services with copies of three quality System Decision Papers (SDP) that might be used as references. These examples, used in conjunction with DoDD 7920.1 and DoDI 7920.2 (the primary guides for MAISRC documentation) should assist the PM and staff in the preparation of their products.

The second initiative will provide for the establishment of a firm management baseline for the program that will increase the accuracy of program cost and schedule planning. The initiative will also facilitate clear assessments of cost, schedule, or capability adjustments. A draft DoD directive has been reviewed by the military departments and will be published in 1987.

The third initiative was enacted in November 1986, and establishes a talented and independent group that would be available, as needed, to the PMs to advise on key program challenges. This group will provide its confidential findings directly to the PM and will not provide information to the MAISRC. The Air Force acts as Executive Agent for this initiative.

The fourth initiative consists of strengthening the education and experience of the PM's office. The DoD is working through the Services to specify essential curriculum for education as well as developing options to strengthen experience requirements. The Department of Defense Computer Institute is currently developing a syllabus and plans to inaugurate a new course in fiscal year 1987. Additionally, a Joint Program Managers' forum has been established and provides the various managers with a setting to air and discuss items of mutual concern.

The fifth, and last, initiative currently being developed for the PM is an amplification of policy guidance. Specifically, DoD will clarify what analysis or products must be developed to support program planning, decisions, and actions.

H.3 THE MAISRC INITIATIVE

The sixth initiative developed by the the DoD, and the only one not designed for the PM, will support the MAISRC. This initiative provides for strengthened independent review and assessment support to the MAISRC Principals. This initiative incorporates the Directors of Program Analysis and Evaluation (DPA&E) and Operational Test and Evaluation (DOT&E) into the review process as Principals on the MAISRC. Cost and benefit analysis as well as test and evaluation planning and execution should be greatly improved and thereby strengthen the development process. (See Appendix G.)

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, DC 20301-1100

COMPTROLLER

20 NOV 1986

MEMORANDUM FOR ASSISTANT SECRETARY OF ARMY (FM)
ASSISTANT SECRETARY OF NAVY (FM)
DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Independent Assistance Group

You will recall that one of the identified ADP acquisition improvement initiatives was the establishment of an independent assistance group to provide direct support to program managers. The Air Force, as executive agent for this effort, has completed its charter and I have approved it. Further, initial funds of $1,000,000 in O&M have been provided to support efforts through FY 87.

I encourage you to make direct contact with the Air Force to make plans to utilize these resources as early as possible.

Robert W. Helm

Robert W. Helm
Assistant Secretary of Defense
(Comptroller)

cc: Assistant Secretry of Air Force (FM)

CHARTER FOR THE

INDEPENDENT ASSISTANCE GROUP

A. REFERENCES.

1. Memorandum by the Assistant Secretary of Defense (Comptroller) (ASD(C)), 23 Aug 85, "Automated Data Processing (ADP) Acquisition Improvement." This memorandum provided the results of a study by the Office of the Assistant Secretary of Defense (Comptroller) (OASD(C)) for improvement of the ADP acquisition process in the Department of Defense (DOD) for major automated information systems (AIS) programs.

2. Memorandum by the ASD(C), 28 Feb 86, "Executive Agent for the Independent Assistance Group." This memorandum requested establishment of an Executive Agent, which is included in this document.

B. PURPOSE. The Independent Assistance Group (IAG), one of the initiatives recommended by the 23 Aug 85 ASD(C) memorandum, will be a group of organizations or companies (also referred to as providers* in this charter) which will be under contract to the Department of the Air Force in its capacity as Executive Agent. The IAG will provide program management review and recommendations to managers of DOD major AIS programs upon request from the managers. This charter establishes the IAG. The goal of the IAG is to assist these program managers in reducing the overall risks of program

* As used in this charter, this term means both commercial, for-profit management consulting firms and not-for-profit government or academic enterprises qualifed to provide the assistance.

failure, cost/budget overruns, noncompetitive acquisition strategy, technical failure, etc. This charter also:

1. Designates an Executive Agent for IAG operations.

2. Establishes a DOD Executive Committee to provide corporate DOD oversight of IAG operations.

3. Defines the role and responsibilities of the Executive Agent and the Executive Committee.

4. Identifies the objectives, functions, and professional requirements (desirable skills, knowledge, and experience) for IAG personnel.

5. Provides the basic operating guidelines for the OASD(C) IAG initiative.

6. Establishes policies for funding of IAG operations.

C. DESIGNATION OF THE EXECUTIVE AGENT. The Department of the Air Force is hereby designated as Executive Agent for the IAG. The Air Force signatory to this charter is hereby authorized to delegate responsibility for the initiation of the IAG to one or more subordinate Air Force elements.

D. ROLE AND RESPONSIBILITIES OF THE EXECUTIVE AGENT. As Executive Agent for the IAG, the Department of the Air Force shall act for OASD(C) in all matters pertaining to IAG operations. These matters include, but are not limited to:

1. Recruiting and staffing a cadre of personnel within the Air Force to oversee the operation of the IAG.

2. Development of criteria for the competitive selection of qualified providers who will constitute the IAG and who will be used selectively to render independent program management assistance to major AIS program managers in DOD.

3. Selection of responsive, qualified IAG providers.

4. Annual review and update/modification, as required, of this charter.

5. Acting as the single DOD point of contact for inquiries regarding the IAG or its activities.

6. Staffing requests from defense agencies for IAG assistance.

7. Providing administrative support to the Executive Committee.

8. Completion of such actions pertaining to the IAG initiative as may be tasked by OASD(C).

E. THE EXECUTIVE COMMITTEE. An Executive Committee shall be formed of one senior official of each service, in the grade of O-7 or equivalent, to review DOD program manager requests for use of the IAG. The Executive Committee may also include senior officials from the major defense agencies as approved by OASD(C). The chair of the Executive Committee shall be rotated at the beginning of each fiscal year in the following order: Air Force, Army, and Navy, and defense agencies as approved by OASD(C). The Executive Committee shall meet at the call of the chair to review requests for IAG services, and shall specifically authorize the provision of services by the IAG to satisfy each request.

F. FUNCTION, PROCEDURES, AND PROFESSIONAL REQUIREMENTS.

1. IAG FUNCTION. The function of the IAG is to assist the manager of a DOD major AIS program (upon written request and Executive Committee approval) in preparing for key milestone reviews and/or assessing substantive program issues affecting the program's development, completion, cost, etc.

2. IAG PROCEDURES. Each request for IAG assistance will be initiated by the program manager and clearly state the milestone review(s) needing IAG support and/or the program issue(s) requiring assessment. All IAG products or deliverables shall be provided directly by the providers to the program manager requesting the assistance. Desired IAG products or deliverables shall be agreed upon by the providers and the program manager, and be approved by the Executive Committee, prior to any provider effort on behalf of the program manager. This agreement shall be in the form of a statement of work (SOW) describing the desired products or deliverables. The SOW will become effective after review and approval by the Executive Committee and signature by the program manager and the providers. These products or deliverables may take the form of memoranda of opinion, written reports on the adequacy of the program strategy, and recommendations for corrective action, verbal briefings, or other deliverables as mutually agreed. The IAG will place special emphasis on practical, results-oriented recommendations or observations. The providers will not perform direct program management. Rather, they will provide objective, independent

advice to program managers under the terms of the statements of work. In providing support to program managers, providers may perform the following functions:

a. Determine the adequacy of the range of alternative system concepts under consideration by the program manager.

b. Evaluate the appropriateness of the system concept selected for the major AIS program.

c. Identify deficiencies, gaps, or inconsistencies in the analyses supporting the selection of the system concept.

d. Identify errors in fact that can influence the major AIS program.

e. Identify important differences in judgment and explain their significance.

f. Identify apparent and critical technical, schedule, or cost risks for the major AIS program, and recommend approaches to reduce them.

g. Make any other suggestions as necessary to strengthen the major AIS program.

3. IAG PROFESSIONAL REQUIREMENTS. The success of the IAG depends greatly on the skills, knowledge, and experience of the personnel employed by the providers. These significant and essential personnel factors are listed in the attachment to this charter.

G. BASIC OPERATING GUIDELINES FOR THE INDEPENDENT ASSISTANCE GROUP INITIATIVE.

1. POLICY AND BUDGETARY DECISIONS. The OASD(C) signatory to this charter shall be the single responsible official for

all policy and budgetary decisions regarding IAG operations as defined in this charter.

2. CONFLICTS OF INTEREST. Given the potential sensitivity of the subjects, conceptual alternatives, and policy issues to be discussed and evaluated, the employees of providers must be free from actual, potential, or apparent conflicts of interest. A provider of IAG support must gain no competitive advantage from the role of supporting a major AIS program manager; and a provider should not lose objectivity as a result of having profit-seeking consulting, implementation, manufacturing, or other conflicting organizational goals, such as a desire to service other commercial clients.

3. START-UP FUNDING. Start-up funding for IAG operations will be provided by OSD in the amount of $1,000,000 for FY 1987. During FY 1987, assistance resource requirements in excess of these amounts will be satisfied on a reimbursed basis through payment by each major AIS program receiving IAG services.

4. FY 1988 AND SUBSEQUENT FUNDING. Beginning in FY 1988, the IAG will commence operations on a fully reimbursed basis through payment by each major AIS program receiving IAG services.

5. ASSISTANCE REQUEST PRIORITIES. Equal consideration will be given to all major AIS program managers in DOD regardless of military department or DOD agency. The Executive Committee will attempt to resolve questions of priorities fairly in recognition of the actual program issues involved. The

ASD(C) will resolve prioritization issues that cannot be resolved by the Executive Committee.

6. USE OF IAG RESOURCES. The Executive Committee shall take all steps necessary to ensure efficient use of IAG resources and funding. All relevant facts, analyses, documentation, and other sources of information shall be marshalled and organized by the major AIS program manager before the initial interaction with an IAG provider.

7. CONFIDENTIALITY OF IAG PRODUCTS AND DELIVERABLES. The strict confidentiality of each IAG report or other deliverable to a major AIS program manager shall be maintained at all times, both during the actual performance of IAG support to the program and after such support ends. Providers shall certify, in writing, their freedom from actual, potential, or apparent conflicts of interest with respect to that major AIS program. IAG reports or other deliverables will not be released to any third party without the written permission of the major AIS program manager.

8. REPORTING IAG ACTIVITIES. On behalf of the Executive Committee, the Executive Agent shall provide the Assistant Secretaries (Financial Management) of the Services and the ASD(C) with an overall report of the activities of the IAG on a semiannual basis.

9. RESOLUTION OF MAJOR ISSUES OR PROBLEMS. Any major issues or problems in IAG operations which require OASD(C) involvement

shall be communicated through the Executive Agent to the ASD(C).

1 Attachment
IAG Provider Professional
Requirements

SUBMITTED FOR APPROVAL:

10 Nov 86
ROBERT E. LUDWIG, BRIGADIER GENERAL, USAF — Date
Assistant Chief of Staff, Systems for Command,
Control, Communications and Computers

AGREED AND SIGNED:

13 Nov 86
RICHARD E. CARVER — Date
Assistant Secretary of the Air Force
(Financial Management)

20 Nov 86
ROBERT W. HELM — Date
Assistant Secretary of Defense (Comptroller)

IAG PROVIDER PROFESSIONAL REQUIREMENTS

A. Experience. Provider employee experience is considered essential in the following areas:

1. Design, development, and evaluation of major automated information systems (AISs). This should include the hardware, software, and data communications aspects of these systems. It should also include analysis/review experience with conceptual system approaches.

2. Implemention of diverse functional applications on several types of major hardware/systems software architectures. This is required by the variety of computer systems architectures in use or planned for use within DOD.

B. Knowledge. The following are considered essential areas of broad and current knowledge:

1. Commercial products and applied research development in computer hardware, systems software, and data communications technologies.

2. Approaches used in both government and the private sector to develop and field large, major automated systems.

3. Proven practices and procedures for major AIS program management and ADP resources acquisition.

4. Issues and problems in internal management controls, ADP system security, and privacy of personal data.

5. Principles and practices of ADP program management and life cycle management.

6. Principles and practices associated with program integration.

Attachment

C. Skills. The following are considered essential skill requirements:

1. Very quick study capability with strong analytic and conceptual skills.

2. Very strong oral and written skills with emphasis on extremely clear idea presentation.

3. Strong abilities to sift through many facts and draw out the central issue or issues.

4. Demonstrated capabilities to identify specific, practical actions that have high potential for resolving identified AIS program problems and for reattaining program momentum.

5. Strong abilities to address and resolve unstructured problems.