canceled per DOD 5000.2 1 Sep 87

Department of Defense
INSTRUCTION

March 12, 1986
NUMBER 5000.2

USDRE

SUBJECT: Major System Acquisition Procedures

References: (a) DoD Instruction 5000.2, "Major System Acquisition Procedures," November 19, 1985 (hereby canceled)
(b) DoD Directive 5000.1, "Major System Acquisitions," March 12, 1986
(c) DoD Directive 5000.35, "Defense Acquisition Regulatory System," March 8, 1978
(d) DoD Directive 5000.3, "Test and Evaluation," March 12, 1986
(e) through (jj), see enclosure 1

A. REISSUANCE AND PURPOSE

This Instruction reissues and updates reference (a) to revise procedures for DoD implementation of reference (b).

B. APPLICABILITY

This Instruction applies to the Office of the Secretary of Defense (OSD), the Military Departments, the Organization of the Joint Chiefs of Staff (OJCS), and the Defense Agencies. As used in this Instruction, the term "DoD Components" refers to the Military Departments and the Defense Agencies, and the term "Military Services" refers to the Army, Navy, Air Force, and Marine Corps.

C. POLICY

1. It is the policy of the Department of Defense to provide uniform procedures for the major system acquisition process. The procedures in section D., below, shall be used for the review and direction of major defense system acquisitions. Enclosure 2 identifies acquisition improvements and other principles to be considered in major system acquisitions. Further guidance on their applicability, definition, and procedures will be provided separately, when appropriate. Formats for program documentation are prescribed in enclosures 3, 4, and 5.

2. DoD regulatory documents that relate to the acquisition process are part of the Defense Acquisition Regulatory System (DARS) (reference (c)). The DARS establishes uniform policies and procedures for the acquisition of supplies and services by the Department of Defense. Program managers shall plan acquisition programs in accordance with the functional guidance in the DARS.

3. The provisions of DoD Directive 5000.1 (reference (b)) and this Instruction are first and second in order of precedence for major system

acquisitions, except when statutory requirements override. Any DoD issuance in conflict with reference (b) or this Instruction shall be changed or canceled within 90 days from issuance of this Instruction. Thereafter, conflicts shall be brought to the attention of the originating office and the Defense Acquisition Executive (DAE)/Procurement Executive (PE).

D. PROCEDURES

1. Major System Designation. The process for designation of certain acquisition programs as major systems is set forth in (reference (b)). The Under Secretary of Defense (Research and Engineering (USDRE) and the Assistant Secretary of Defense (Acquisition and Logistics (ASD(A&L)) may recommend candidate programs to the Secretary of Defense through the DAE/PE at any point in the acquisition process. The USDRE and ASD(A&L) are authorized to withdraw the designation of "major system" when circumstances so dictate, but shall advise the Secretary of Defense before taking such action.

2. Major System Listings. The USDRE and ASD(A&L) shall jointly update and distribute a list of currently designated major systems at least quarterly.

3. Defense Systems Acquisition Review Council (DSARC). The DSARC, as the top-level DoD corporate body for system acquisition, shall provide advice and assistance through the DAE/PE to the Secretary of Defense. The following sets forth organizational and procedural elements of the DSARC process.

a. DSARC Membership

(1) Members of the DSARC are identified in reference (b).

(2) The appropriate Deputy Under Secretaries of Defense (Strategic and Theater Nuclear Forces), (Tactical Warfare Programs) and (Test and Evaluation); Deputy Assistant Secretaries of Defense (Procurement), (Command, Control, Communications and Intelligence); the Director, Defense Intelligence Agency; the Director, Weapons Support Improvement Group (DWSIG), and the Chairman, Cost Analysis Improvement Group (CAIG), are permanent advisors to the DSARC and will participate, as appropriate, in DSARC reviews.

(3) The DSARC chair may request ad hoc advisors such as the Deputy Under Secretaries (International Programs and Technology) and (Research and Advanced Technology) to participate in DSARC reviews that include issues requiring expert advice in the areas they represent. The Assistant to the Secretary of Defense (Atomic Energy) (ATSD(AE)) will participate as an advisor in all DSARC reviews of systems that include nuclear components or warheads.

b. DSARC Reviews

(1) The DSARC chair is responsible for convening formal meetings to ease the decision process. DSARC reviews normally shall be held at Milestones I and II. As long as a program is managed within the thresholds established at Milestone II, no further review by the DSARC is contemplated. If thresholds are breached, the USDRE and ASD(A&L) shall be notified and a decision will be made whether or not a program review or another DSARC review will be required.

(2) The USDRE and ASD(A&L) through the DAE/PE may recommend that the Secretary of Defense make a decision and issue a Secretary of Defense Decision Memorandum (SDDM) without a formal council review when there are no substantial issues.

c. Milestone Review Process

(1) Milestone Planning Meeting. When it is considered desirable by either the appropriate DSARC chair or the Component action officer, an informal milestone planning meeting to identify program issues may be held before Component submission of draft documentation.

(2) Draft Program Documentation. Draft documentation shall be submitted by the DoD Component to the DSARC chair 3 months before a DSARC meeting. The OSD action officer shall ensure that copies are made available to DSARC members and advisors and to their staffs. The DSARC chair shall transmit formal comments to the DoD Component 2 months before the scheduled DSARC meeting. Every effort shall be made to resolve issues before the DSARC meeting.

(3) Final Documentation Update. A final update shall be submitted by the DoD Component to the DSARC chair 3 weeks before a scheduled DSARC meeting.

(4) Component Staff Briefings to OSD. Component staff briefings shall be conducted not later than 3 weeks before a DSARC review on the Component independent cost estimate for the CAIG; on test activity, results, and plans for the DOT&E and the DUSD(T&E) and on readiness and support planning for DWSIG. If requested by the DSARC chair, additional briefings shall be conducted on specified subjects, such as chemical or nuclear survivability and endurance, for the appropriate Deputy Under Secretary or the ATSD(AE).

(5) OSD Staff Reports and Briefing to DSARC Members. The following DSARC advisors shall submit written reports to the DSARC chair 6 workdays before the DSARC meeting: Deputy Under Secretaries of Defense (as appropriate); Deputy Assistant Secretaries of Defense (as appropriate); Deputy DOT&E (as appropriate); CAIG, Defense Intelligence Agency (DIA), DWSIG, and the ATSD(AE) (if requested). DSARC members will be briefed by the OSD staff 2 weeks before the DSARC meeting. A final list of issues to be addressed by the Component at the DSARC meeting will be distributed by the DSARC chair following this meeting.

(6) DSARC Meeting. Components are responsible for addressing the DSARC chair issues at a DSARC meeting and providing any additional information as necessary. The OSD staff will also present its reports and will discuss unresolved issues. Following these presentations, DSARC members will determine in executive session the recommendations to be made through the DAE/PE to the Secretary of Defense.

(7) Post-DSARC Action. The SDDM shall normally be issued to the DoD Component within 3 weeks following the DSARC meeting. An SDDM or Service decision memorandum documenting a decision to proceed beyond low-rate initial production (LRIP) on DOT&E oversight programs shall not be signed until the report (LRIP Report) prescribed by DoD Directive 5000.3 (reference (d)) is received by the House and Senate Committees on Armed Services and Appropriations.

d. Program Documentation

Program documentation for major defense systems shall be in accordance with the procedures below, and in the format prescribed by the DSARC chair. Data elements shall be standardized in accordance with DoD Directive 5000.11 (reference (e)) and DoD 5000.12-M (reference (f)). The objective of this documentation is to provide only the information essential for decision making.

(1) Mission Need

(a) Purpose. Major system new starts are considered in the OSD Program Objective Memorandum (POM) review on the basis of justifications provided by DoD Components.

(b) Scope. A Justification for Major System New Start (JMSNS) is required when the new start meets the criteria in DoD Directive 5000.1 (reference (b)).

(c) Processing. A JMSNS shall be submitted for review not later than the POM submission in which funds for the budget year of the POM are requested for a major system new start. When the USDRE plans to recommend that the proposed new start not be endorsed by the Secretary of Defense, a POM issue will be initiated by the USDRE DSARC Executive Secretary.

(d) Documentation of Secretary of Defense Decisions. When a JMSNS is included in the POM and the Secretary of Defense endorses the new start as proposed, the Program Decision Memorandum (PDM) documents the endorsement. When the DoD Component's recommendation is modified, changes shall be documented in the PDM. When a joint, OSD, or OJCS JMSNS is submitted, the Secretary of Defense decision may be documented in an SDDM.

e. Milestone I and II (and Milestone III if a Secretary of Defense decision is required)

(1) Milestone I - System Concept Paper (SCP)/Test and Evaluation Master Plan (TEMP)

(a) Purpose. The SCP is used to summarize the results of the concept exploration phase up to Milestone I; to describe the DoD Component's acquisition strategy, including identification of concepts to be carried into the demonstration and validation phase, and reasons for elimination of other concepts; and to establish goals, thresholds, and threshold ranges (as appropriate) to be met and reviewed at the next milestone. The purpose and content of the TEMP is described in DoD Directive 5000.3 (reference (d)).

(2) Milestone II (and III if a Secretary of Defense decision is required) Decision Coordinating Paper/Integrated Program Summary (DCP/IPS)/TEMP/LRIP Report.

(a) Purpose. The DCP/IPS consists of two documents that provide different levels of detail for consideration by the DSARC. The DCP is a top-level summary document that identifies alternatives, goals, thresholds, and threshold ranges, as appropriate. The IPS will provide more specific

information on the program and shall be prepared when the DSARC chair determines that the DCP lacks information on which to base the requisite decision. When a Milestone III (production decision by the Secretary of Defense) is required, the DCP/IPS shall be updated to describe program changes since Milestone II and to propose goal and threshold revisions, if appropriate. The purpose and content of the TEMP and the LRIP Report is described in DoD Directives 5000.3 (reference (d)).

(3) Cost-effectiveness analysis for all major acquisitions shall be performed by the DoD Components to support Milestone I and Milestone II, and shall be provided to the Director, Program Analysis and Evaluations, along with the draft SCP or DCP/IPS, unless this requirement is waived by the DSARC chair.

(4) Notwithstanding any other subordinate DoD issuance, additional requirements for information to be considered by the DSARC, beyond that required by this Instruction, shall be issued only by the DSARC chair.

f. Secretary of Defense Decision Memorandum (SDDM).

(1) The SDDM documents the Secretary of Defense's milestone decision, including approval of goals, thresholds, and threshold ranges (as appropriate), for cost, schedule, performance, supportability, T&E, standardization, exceptions to the normal acquisition process, and other appropriate direction. The SDDM may also be used to document a Secretary of Defense decision on a joint or OSD and OJCS JMSNS.

(2) The OSD action officer shall prepare and coordinate a SDDM to reflect revised thresholds and updated program direction resulting from threshold breaches or projected breaches reported by the DoD Component. Programing and budgeting decisions normally will allocate the resources required to implement SDDM directions. However, when a change is made by programing or budgeting decisions that offset threshold or program direction contained in the previous SDDM, the appropriate DSARC chair shall notify the appropriate OSD offices and the action officer shall prepare and coordinate a new SDDM within 2 months after submission of the presidential budget to Congress. In the case of congressional direction, the SDDM shall be prepared and coordinated 2 months after the legislation is enacted.

g. DSARC Executive Secretaries. Designated by the appropriate DSARC chair, the permanent Executive Secretaries shall:

(1) Make administrative arrangements for meetings.

(2) Assemble and distribute necessary documentation.

(3) Maintain a central reference file for current program documentation.

(4) Control attendance at DSARC meetings.

(5) Document DSARC recommendations to the Secretary of Defense.

(6) Jointly maintain and distribute at least quarterly status reports concerning DSARC actions.

The USDRE Executive Secretary shall staff JMSNS and prepare POM issue papers when required.

h. Action Officers. The DSARC chair shall appoint an action officer from the appropriate OSD functional organization to be the lead OSD staff official in the DSARC process for each major system. The action officer shall:

(1) Coordinate both OSD issues and DoD Component positions;

(2) Conduct planning meetings;

(3) Process, as appropriate, the SCP and DCP/IPS;

(4) Present the OSD staff brief to DSARC members;

(5) Coordinate SDDMs; and

(6) Ensure that the comments and recommendations from all OSD offices on DSARC and program review-related documents prepared by the Components are integrated into one coherent set of views and issues.

i. OSD Staff. Functional elements of the OSD staff (such as T&E, cost analysis, logistics, production engineering, and standardization), in order to carry out their oversight function, shall maintain continuous surveillance throughout the acquisition cycle. The Components shall cooperate and work closely with their OSD staff counterparts to ensure an effective flow of information.

j. Threat Definitions. The effectiveness of a proposed weapon system in its intended threat environment is a fundamental concern in the acquisition process and shall be considered by the DoD Components from the outset of a program. DIA will validate the intelligence used by the Components to define the threat following procedures established in DIA Regulation 55-3.

k. Program Reviews.

(1) In accordance with DoD Directive 5000.1 (reference (b)), the appropriate DSARC chair may call for a program review at any time in the acquisition of a major defense system. Program reviews are narrower in scope and less formal than a full DSARC milestone assessment of the total program.

(2) When a decision is reached to call for a program review, the appropriate DSARC Executive Secretary shall notify the DoD Component involved in writing not less than 2 months before the program review stating when and for what purpose the review is scheduled; and identifying the documentation to be furnished to the DSARC chair before the review, including topics to be addressed, due date, and receiving element of the OSD staff.

(3) A program review may require a working group meeting between OSD staff elements, such as Office of the Under Secretary of Defense for

Research and Engineering (OUSDRE), Office of the Assistant Secretary of Defense (Force, Management & Personnel) (OASD(FM&P)), Office of the Assistant Secretary of Defense (Acquisition and Logistics) (OASD(A&L)), Office of the Assistant Secretary of Defense (Command, Control, Communications and Intelligence (OASD(C^3I)), DOT&E, DUSD(T&E), CAIG, the Component concerned, and the program manager's staff. Occasionally, formal briefings on Military Service independent cost analyses or T&E programs may be requested.

(4) Any direction resulting from a program review that changes a goal, threshold, or other direction previously approved in an SDDM, shall be documented in a new SDDM.

4. Programing and Budgeting. Programing and budgeting decisions that may invalidate a milestone decision or other SDDM direction shall be recommended to the Defense Resources Board (DRB) for explicit consideration of the impact on military capability and total resource requirements. In addition, the DoD Component head shall explain and justify to the DRB differences between program baselines established at Milestone II and quantity and funding in the program or budget under review.

E. RESPONSIBILITIES

Heads of the DoD Components under section B., above, shall ensure compliance with the provisions of this Instruction.

F. EFFECTIVE DATE AND IMPLEMENTATION

This Instruction is effective immediately. DoD Components shall forward one copy of implementing documents to the Under Secretary of Defense for Research and Engineering within 30 days.

William H. Taft, IV
Deputy Secretary of Defense

Enclosures - 5
1. References
2. Acquisition Management and System Design Principles
3. Format for Justification for Major System New Start (JMSNS)
4. Format for System Concept Paper (SCP) and Decision Coordinating Paper (DCP)
5. Format for Integrated Program Summary (IPS)

REFERENCES, continued

(e) DoD Directive 5000.11, "Data Elements and Data Codes Standardization Program," December 7, 1964
(f) DoD 5000.12-M, "DoD Manual for Standard Data Elements," October 1984, authorized by DoD Directive 5000.12, April 27, 1965
(g) DoD Directive 5000.34, "Defense Production Management," October 31, 1977
(h) DoD Directive 4005.1, "DoD Industrial Preparedness Production Planning," July 28, 1972
(i) DoD Directive 2010.6, "Standardization and Interoperability of Weapons Systems and Equipment within the North Atlantic Treaty Organization," March 5, 1980
(j) DoD Directive 5000.4, "OSD Cost Analysis Improvement Group," October 30, 1980
(k) DoD Directive 4120.21, "Application of Specifications, Standards, and Related Documents in the Acquisition Process," November 3, 1980
(l) DoD Directive 5000.37, "Acquisition and Distribution of Commercial Products (ADCP)," September 29, 1978
(m) DoD Directive 4120.3, "Defense Standardization and Specification Program," February 10, 1979
(n) DoD Directive 4120.19, "DoD Parts Control Program," June 27, 1984
(o) DoD Directive 4155.1, "Quality Program," August 10, 1978
(p) DoD Directive 5000.39, "Acquisition and Management of Integrated Logistic Support for Systems and Equipment," November 17, 1983
(q) DoD Directive 5000.40, "Reliability and Maintainability," July 8, 1980
(r) DoD Directive 3224.1, "Engineering for Transportability," November 29, 1977
(s) DoD Instruction 5000.36, "System Safety Engineering and Management," December 6, 1978
(t) DoD Directive 3224.3, "Physical Security Equipment: Assignment of Responsibility for Research, Engineering, Procurement, Installation, and Maintenance," December 1, 1976
(u) DoD Instruction 4245.4, "Acquisition of Nuclear-Survivable Systems," September 2, 1983
(v) DoD Directive 5160.65, "Single Manager for Conventional Ammunition," November 17, 1981
(w) DoD Instruction 4200.15, "Manufacturing Technology Program," May 24, 1985
(x) DoD Directive 5000.29, "Management of Computer Resources in Major Defense Systems," April 26, 1976
(y) DoD Directive 5000.19, "Policies for the Management and Control of Information Requirements," March 12, 1976
(z) DoD Instruction 5010.12, "Management of Technical Data," December 5, 1968
(aa) DoD 5000.19-L, VOL II, "Acquisition Management Systems and Data Requirements Control List," October 1985, authorized by DoD Directive 5000.19, March 12, 1976
(bb) DoD Directive 4120.18, "Metric System of Measurement," January 28, 1980
(cc) DoD 4140.43, "Department of Defense Liquid Hydrocarbon Fuel Policy for Equipment Design, Operation and Logistics Support," December 5, 1975
(dd) DoD Directive 6050.1, "Environmental Effects in the United States of DoD Actions," July 30, 1979
(ee) DoD 7920.1, "Life Cycle Management of Automated Information Systems (AIS)," October 17, 1978
(ff) DoD Directive 5000.28, "Design to Cost," May 23, 1975
(gg) DoD Instruction 7000.3, "Selected Acquisition Reports," December 27, 1984

(hh) DoD Directive 7000.2, "Performance Measurement for Selected Acquisitions," June 10, 1977
(ii) DoD Instruction 5000.33, "Uniform Budget/Cost Terms and Definitions," August 15, 1977
(jj) DoD Directive 5010.19, "Configuration Management," May 1, 1979

ACQUISITION MANAGEMENT AND SYSTEM DESIGN PRINCIPLES

The following principles shall be considered in planning major system acquisitions:

1. Mission Analysis[1]
2. Operational Requirements[1]
3. Long-Range Planning and Program Stability[1]
4. Affordability[1]
5. Timeliness[1]
6. Acquisition Strategy[1]
7. Participating Activities
8. Industrial Resource Analysis (see references (g) and (h))
9. Facility Construction (for support of NATO missions, see reference (i))
10. Cost Estimates[1]
11. Goals, Thresholds, and Threshold Ranges, as appropriate[1]
12. International Defense Cooperation (see reference (i))
13. Economical Production Rates[1]
14. Test and Evaluation (see reference (d))
15. Independent Cost Analysis (see reference (j))[1]
16. Competition[1]
17. Specification and Standards (see references (k), (l), and (m))
18. Standardization and Interoperability in Engineering Design (see references (m), (i), (l), and (n))
19. Preplanned Product Improvement[1]
20. Quality (see reference (o))
21. System Readiness, Support, and Personnel (see reference (p))
22. Reliability and Maintainability (see reference (q))
23. Deployment Requirements (see reference (r))
24. System Safety (see reference (s))
25. Physical Security (see reference (t))
26. Nuclear and Chemical Hardness, Survivability, and Endurance (see reference (u))
27. Producibility and Production Planning (see references (q), (v), (h) and (w))
28. Contractor's Production Capability and Contractor Productivity
29. Computer Resources (see references (x) and (y))
30. Data Management (see references (k), (z), and (aa))
31. Metric Units of Measurement (see reference (bb))
32. Electromagnetic Spectrum and Other Spectrum Allocation
33. Energy Efficiency (see reference (cc))
34. Environmental Impact (see reference (dd))
35. Post Production Support (see reference (p))
36. Administrative and Business Applications for Automated Information Systems (see reference (ee))
37. Cost Visibility and Control (see references (ff), (gg), and (hh))
38. Industrial Modernization Improvement (see reference (w))
39. Evolutionary Development and Acquisition of Command and Control System

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[1]For a discussion of these and other principles, see Defense Acquisition Circular (DAC) 76-43.

FORMAT FOR
JUSTIFICATION FOR MAJOR SYSTEM NEW START (JMSNS)

Prepare JMSNS in format shown below. Do not exceed three pages. Identify any supporting documentation.

A. Defense Guidance Element. Identify the element of Defense Guidance to which the system responds.

B. Mission and Threat. Identify the mission area (numbers and title) and describe the role of the system in the mission area. Discuss tbe DIA-validated projected threat and the shortfalls of existing systems in meeting the threat. Comment on the timing of the need and the general priority of this system relative to others in this mission area.

C. Alternative Concepts. Describe known alternatives that will be considered during concept exploration (including product improvements). If an alternative has been selected, describe the reasons for rejecting those that have not been selected, and any further trade-offs that remain for the selected system.

D. Technology Involved. For known alternatives, discuss maturity of the technology planned for the selected system design and manufacturing processes, with particular emphasis on remaining areas of risk.

E. Funding Implications. Discuss affordability, including the level of funding the Component is willing to commit to satisfy the need. When a concept has been selected, provide gross estimates of total RDT&E cost, total procurement cost, unit cost, and life-cycle cost.

F. Constraints. Describe, as applicable, key boundary conditions for satisfying the need, such as survivability, logistics and manpower constraints, computer resources, standardization or interoperability within NATO or other DoD Components, and critical materials and industrial base required.

G. Acquisition Strategy. Provide summary of salient elements of proposed acquisition strategy, such as program structure, competition, and contracting.

SYSTEM CONCEPT PAPER (SCP) AND DECISION COORDINATING PAPER (DCP)

Prepare SCP (for Milestone I) and DCP (for Milestones II and III) in format shown below. Do not exceed 12 pages for SCP and 18 pages for DCP, excluding the annexes. Use the additional length of the DCP for expanded sections 7 through 9. Identify any supporting documentation.

1. Brief Description of System. One short paragraph.

2. History. Summarize any previous guidance, decisions, and congressional actions.

3. Mission Area and Role. Describe in both broad and specific terms. Refer to Defense Guidance, if appropriate.

4. Threat Assessment. Describe DIA-validated threat, emphasizing interactive effects of system and threat.

5. Shortfalls of Existing Systems. Describe inadequacies of existing systems.

6. Alternatives Considered. Discuss rejected alternatives and reasons for their nonselection. If a new system was decided upon, discuss why product improvement of existing system was not selected. Summarize results of cost-effectiveness analysis conducted.

7. Description of Selected Alternative. Describe system in more detail than in section 1. Define operational concept. Discuss survivability (including nuclear) and standardization. Verify that system is affordable, even at reduced DoD Component top-line budgets. Discuss readiness, sustainability, and economy of manpower, and how they are to be achieved. Do not duplicate from Annexes.

8. Technological Risks of Selected Alternative. For Milestone I (SCP), identify key areas of technological risk which must be reduced by R&D and validated by T&E before Milestone II. For Milestone II (DCP), discuss T&E results that show all significant risk areas have been resolved. Also for Milestone II, verify that technology is in hand and only engineering (rather than experimental) effort remains.

9. Acquisition Strategy. Discuss general strategy for entire program, and detailed strategy for proceeding to next milestone. Emphasize program structure. Address specifically competition and contracting for all phases. Outline production planning to ensure an industrial base response that will support efficient manufacture and provide surge capacity, when appropriate. At Milestone II, verify that future cost and schedule are defined in detail and credible. Discuss cost control. Do not duplicate from annexes. Indicate those DoD Directives, DoD Instructions, and management principles in enclosures 1 and 2 that will not be applied to the proposed system.

10. Known Issues. Discuss issues identified by the Military Services and by the DSARC chair.

11. Decisions Needed

Annexes - 5

A. Example of Program Structure

B. Thresholds

C. Resources - Cost Track Summary

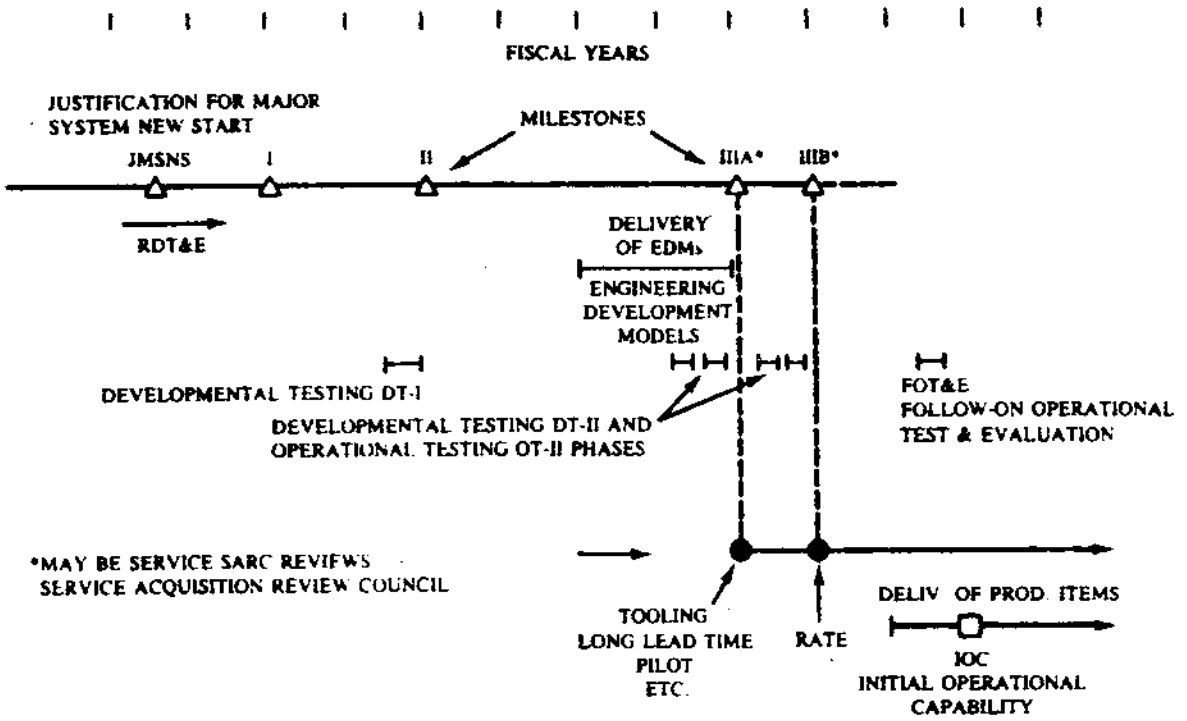
D. Resources - Funding Profile

E. Summary of Life-Cycle Cost of Alternatives.

ANNEX A

EXAMPLE OF PROGRAM STRUCTURE

(Note that the schematic below is an example only and should not be construed as the only acceptable program strategy to be followed rigidly. See policy statement on tailoring and flexibility in DODD 5000.1)



ANNEX B

	Thresholds[1] Milestone II	Thresholds[2] Milestone III[3]
COST[4]		
RDT&E (total)		
Procurement (total)		
Flyaway (unit)		
Procurement (unit)		
SCHEDULE		
Milestone II		
Milestone III		
PERFORMANCE[5]		
Technical		
Speed		
Maximum range		
Rate-of-fire		
Operational		
Hit probability		
Kill probability		
READINESS/SUPPORTABILITY[5]		
Technical		
Reliability (demonstrated)		
Transportability		
Operational		
Reliability (Field)		
Maintainability		
Operational availability (A_o)		
Sortie rate		
Manning		
INDUSTRIAL BASE.		
Leadtime to produce		
Production buildup rate		
Production rate		
Surge rate		

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[1] Includes goals or threshold ranges, when appropriate

[2] Performance and readiness/supportability thresholds should be verified by T&E at Milestone.

[3] If program structure includes more than one Milestone III (IIIA, IIIB, etc.), show column for each.

[4] Show costs in constant, base-year dollars.

[5] Select appropriate parameters (these are examples only). Technical thresholds will be verified by developmental T&E operational thresholds by operational T&E.

ANNEX C
RESOURCES - COST TRACK SUMMARY
(Millions of Dollars)

	FY Constant (Base Year) $			Escalated $
	Planning development estimate[2]	SDDH (Date)[3]	Current estimate[4]	Current estimate[4]
DEVELOPMENT PHASE				
RDT&E	( )[6]	( )[6]	( )[6]	( )[6]
Validation phase				
Full-scale development				
Contractors				
In-House				
Contingency (Service)				
Other System Costs				
TOTAL RDT&E APPROPRIATION				
MILCON				
O&M[5]				
MILPERS[5]				
TOTAL DEVELOPMENT PHASE				
PRODUCTION PHASE				
PROCUREMENT				
System cost[7]				
Flyaway (Provide one level of WBS indenture based on program requirements)	( )[6]	( )[6]	( )[6]	( )[6]
Other system costs				
Initial spares				
Other line item procurement[8]				
TOTAL PROCUREMENT APPROPRIATION				
MILCON				
O&M[5]				
MILPERS[5]				
TOTAL PRODUCTION PHASE				

	FY Constant (Base Year) $			Escalated $
	Planning development estimate[2]	SDDH (Date)[3]	Current estimate[4]	Current estimate[4]
TOTAL OPERATING & SUPPORT PHASE				
TOTAL LIFE-CYCLE REQUIREMENTS				
AVERAGE ANNUAL SYSTEM O&S COSTS No. of Systems: No. of Years:				
MILITARY MANPOWER Unit Manning Program Totals (Active/Reserve)				

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[1]Apply footnotes as required to explain the chart. Adjustments to format are authorized to accommodate program; such entries will be decided on at the initial milestone planning meeting. Definitions should be in accordance with DoD Instruction 5000.33 (reference (ii)).

[2]Identify basis for estimate and data of SDDM.

[3]Add columns as necessary for each SDDM revision.

[4]The preferred alternative or the latest approved baseline cost estimate contained in tbe SDDM will be shown in both constant and current (escalated) estimate columns.

[5]Other life-cycle related costs (such as, installation, project manager office and civilian salaries) funded by O&M and MILPERS during development or production phases.

[6]Enter quantity.

[7]Equal to weapon system cost as defined in reference (ii).

[8]Industrial preparedness program (industrial facilities, manufacturing technology, and technology modernization) and other system peculiar costs identified as a separate line item, or as a portion of a separate line item, in another part of the procurement budget. Identify each by tbe program elements from which funding is required and the amount in each.

NOTE: Explain reasons for significant variations in estimate by footnote (such as, schedule slippage and congressional funding).

ANNEX D*

RESOURCES - FUNDING PROFILE[1]
(Dollars in Millions)

(Annex to be completed for each alternative: (1) in constant (base year dollars); (2) in escalated dollars using current FYDP rates and ground rules)

	FY 19 __ PRIOR	FY 19 __	FY 19	FY 19 __	FY 19 __	FY 19 __	TOTAL PROGRAM
ACQUISITION QUANTITIES[2]							
Development Qty.							
Production Qty. by FY							
Deliveries by FY							
DEVELOPMENT PHASE							
RDT&E							
Validation phase							
Full-scale development phase							
Contractors							
In-house							
Contingency (service)							
Other system costs							
TOTAL RDT&E APPROPRIATION							
CURRENT APPROVED FYDP, RDT&E							
MILCON							
O&H[3]							
MILPERS[3]							
TOTAL DEVELOPMENT PHASE							
PRODUCTION PHASE							
PROCUREMENT[4]							
System cost[5]							
Flyaway, rollaway, sailaway (provide one level of WBS identure based on program requirement)							
Other system costs							
Long lead requirements. (Nonadd entry for each year.)							
Initial spares							
Other line item procurement[6]							

* For the preferred alternative, Annex D will be presented in two forms. The first will be based on the program baseline for quantity, sustained surge rate attainable with available industrial maximum reserve capacity, and rate acceleration span. This will include any enhancements made to optimize the program baseline. The second will be based on the industrial reserve capacity required to support a predetermined sustained surge rate; and may be based on a different quantity, surge rate, and rate acceleration span.

	FY 19 PRIOR	FY 19	FY 19 __	FY 19	FY 19 __	FY 19 __	TOTAL PROGRAM
TOTAL PROCUREMENT APPROPRIATION							
CURRENT APPROVED FYDP, PROCUREMENT							
MILCON							
O&M[3]							
MILPERS[3]							
TOTAL PRODUCTION PHASE							
OPERATING AND SUPPORT PHASE							
MILPERS							
O&M							
Procurement[7]							
TOTAL OPERATING AND SUPPORT PHASE							
OTHER FUNDING[8]							
During development							
During production							
Industrial capacity investment							
Total "other" costs							
TOTAL LIFE-CYCLE REQUIREMENTS							

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[1]Apply footnotes as required to explain the chart. Ajustments to Format are authorized to accommodate program; stub entries will be decided on at the initial milestone planning meeting. Definitions should be in accordance with DoD Instruction 5000.33 (reference (ii)). Use as many columns as necessary to show every year of acquisition [2]funding, and operation and support funding until steady state operations are achieved.

[2]Identify the number of development and production units to be funded and delivered by FY.

[3]Other life-cycle related costs (such as installation, project manager office, and civilian salaries) funded by other appropriations; for example, O&M and MILPERS during development or production phase or later.

[4]Enter the costs by appropriation, such as, aircraft procurement, missile procurement, ships construction, or other procurement. If more than one applies, identify it separately.

[5]Equal to weapon system cost as defined in reference (ii).

[6]Industrial preparedness program (industrial facilities, manufacturing technology, and technology modernization) and other system peculiar line items in another part of the procurement budget. Identify each by the program element from which funding is required and the amount in each.

[7]Procurement costs associated with operation and owning a weapon system, such as modifications, replenishment spares, and ground equipment.

[8]For example, installation, project manager's office, civilian salaries, shore-based training facilities, and other system-peculiar costs carried elsewhere in the budget.

ANNEX E
SUMMARY OF LIFE-CYCLE COST OF ALTERNATIVES
Constant Dollars (in millions)

ALTERNATIVE	DEVELOPMENT	PRODUCTION	OPERATING AND SUPPORT	TOTAL
A 1				
A 2				
A 3				
o				
o				
o				

Current Dollars (in millions)

ALTERNATIVE	DEVELOPMENT	PRODUCTION	OPERATING AND SUPPORT	TOTAL
A 1				
A 2				
A 3				
o				
o				
o				

FORMAT FOR
INTEGRATED PROGRAM SUMMARY (IPS)

A. The IPS summarizes in greater detail than the DPC various facets of the implementation plan of the DoD Component for a major system acquisition. Such additional information is to be prepared in accordance with this format. Do not classify the IPS higher than SECRET. When possible, display data in numerical or tabular format.

B. Include the topics indicated below in the IPS. Do not exceed 30 pages.

1. Program History. Summarize previous milestone decisions and guidance, PPBS decisions, and significant congressional actions affecting the program.

2. Threat Assessment. Provide an up-to-date summary of the DIA-validated projected threat, focusing on intelligence relating to the critical intelligence parameters (CIPs) prepared by the program manager.

3. Program Alternatives. In addition to the program proposed by the DoD Component in the DCP, briefly describe each DCP alternative program and pre-planned product improvement (P^3I), including advantages and disadvantages. Do not duplicate data in the DCP or in the annexes.

4. Cost. Address the elements listed below. Make the discussion consistent with Annexes C and D to the DCP and address such displays in expanded detail, if appropriate.

a. Cost-Effectiveness Analysis. Summarize the assumptions, methodology, status, and results of any cost-effectiveness analyses prepared in support of the milestone decision. This section shall contain specific discussions of those aspects of the analyses that relate to the issues identified at the milestone planning meeting. If the analysis supporting the recommended milestone decision is not complete at the time the IPS is submitted, describe the analytical and coordination tasks remaining and provide a schedule for completion of the analysis before the scheduled DSARC meeting.

b. Cost Control. Discuss cost control plans to include the following items:

(1) Assumptions on which the proposed program cost thresholds were determined.

(2) Proposed design-to-cost objectives and how they shall be implemented at the contract level. Refer to DoD Directives 5000.34 and 5000.28, (references (g) and (ff)).

(3) Exceptions to implementation of cost and schedule control systems criteria and alternative cost control procedures to be used. See DoD Directive 7000.2 (reference (hh)).

5. Acquisition Strategy. Describe the current strategy to acquire and deploy a system to satisfy the mission need.

6. Contracting. Provide a summary of information in the procurement plan. At a minimum, include the following:

a. The program contracting approach (introduction and maintenance of competition throughout the system life-cycle and plans for competitive breakout of components by both the Government and the contractors);

b. Contractor performance under contracts in the current program phase; and

c. Major contracts to be awarded in the next program phase (summary of work-scope, contract types, sources solicited and selected, scheduled award dates, special terms or conditions, data rights, warranties, estimated cost or price including incentive structures, and contractor's production capability). When appropriate, reference other portions of the IPS or other documents. Do not include competition-sensitive data in this paragraph.

7. Manufacturing and Production. Describe areas of production risk (including producibility, availability of facilities, and materials to support planned and surge production rates, and unusual leadtime requirements) and describe the strategy to reduce risk. Show the variation in unit cost with production rates and rate break points. Also show areas where projected or potential facilities, manufacturing technology, industrial modernization improvements, producibility program, or utilization of standard components and subsystems would reduce production costs significantly.

8. Organizational and Operational Concept. Describe the organizational structure associated with the system and the general system operational concept. Describe a typical mission profile or profiles and activity rates (wartime and peacetime).

9. Readiness, Reliability and Maintainability (R&M) Support and Personnel

a. At Milestone II:

(1) Identify R&M test results to date and the quantitative impact of differences in resource requirements such as personnel, spares, depot maintenance, to meet readiness objectives.

(2) Identify the planned support concept, resources, and schedule and estimate any deficiencies of current and planned support systems to meet logistical objectives for the system, such as resupply time, maintenance turn-around-time, and automatic test equipment production rate and capacity.

(3) Identify plans and funding for interim contractor support and any subsystems considered for long-term contractor support. Identify the analysis leading to contractor as against in-house support decisions.

(4) Explain briefly significant manpower differences in numbers and skill levels in comparison with a current comparable (reference) system as shown in attachment 2, considering design and support concepts, and employment objective.

(5) Identify projected shortfalls in manpower occupational specialities required for the new system in critical career fields. Identify new occupations that may be required. If shortages exist, explain how required manning will be attained.

(6) Summarize significant differences in training requirements and approach for the new system as against a comparable reference system. Identify training equipment development and anticipated savings from use or simulators or other training devices for operations, maintenance, and support personnel.

(7) Define the readiness objective or objectives and each R&M parameter that applies to the system proposed in the DCP.

(8) Identify petroleum, oil, and lubricant (POL) requirements and any additional resources or facilities required to supply POL for the new system.

b. At Milestone III (if a Secretary of Defense decision is required):

(1) Update Milestone II IPS, parts (1), (2), (3), (4), and (5), including attachment 2.

(2) Summarize plans and additional resources required to train the initial component of operating and support personnel for unit conversion to fielded systems. Summarize plans for training reserve component personnel whose mission requires operation or support of the system.

(3) Summarize plans and responsibilities for providing post production support to meet system readiness goals throughout the operational life of the system. Identify key milestones.

10. Configuration Management. Identify interfacing systems and discuss the degree of configuration management planned for each phase. Also, explain any intended deviations from DoD Directive 5010.19 (reference (jj)).

11. Test and Evaluation. Describe briefly the overall test strategy for contractor, development, and operational test and evaluation.

12. Quality Programs and Systems. Describe briefly the overall strategy for quality assurance and contractor quality control requirements in each phase or the acquisition process.

C. Address each of the following areas as required. The DSARC chair may also identify issues to be addressed by the DoD Component in these areas at the milestone planning meeting or in the comments on the draft IPS.

1. Technology Assessment. If all or part of the technology planned for use in this program has not been demonstrated, justify its use and identify technology risks and activities planned to reduce them.

2. Systems Computer Resources. Identify and discuss any waivers from or exceptions to the policies in DoD Directive 5000.29 (reference (x)), and subsidiary instructions.

3. Data Management. Identify exceptions to the use of approved specifications, standards, their related technical and engineering data, special reports, terminology, data elements and codes to be used. Refer to DoD 5000.19-L, VOL II and DoD Directive 4120.21 (references (aa) and (k)). Identify contractor data products that can be used as substitutes for DoD required reports.

4. Facilities. Identify any new government or industry facilities required to develop, produce, test, and support the new system. Identify cost and schedule constraints (such as training, maintenance) if new facilities can not be obtained.

5. System Vulnerability. Describe nuclear and non-nuclear (including chemical) survivability and endurance shortfalls that may impair mission performance in the proposed system, and indicate constraints that preclude satisfactory performance in response to the mission need.

6. Surge Capability. Describe plans for surge production.

7. System Safety. Summarize the results of the system safety analysis and specify corrective actions pending on all significant unresolved safety hazards. Cite in the summary management decisions, if any, to accept the risks associated with specific identified hazards.

8. Environment, Health, and Energy. List any exceptions to requirements in these areas and identify constraints that preclude meeting objectives. Summarize environmental consequences if proceeding with the program.

9. International Programs. When North Atlantic Treaty Organization rationalization, standardization, interoperability (NATO RSI) or foreign military sales are involved, describe briefly the impact of these requirements on the program.

Attachments - 2
1. Resources - Summary of System Acquisition Costs
2. Manpower

RESOURCES - SUMMARY OF SYSTEM ACQUISITION COSTS

SOURCES OF FUNDING	CURRENT DOLLARS (MILLIONS)	
Department of the Army		$XXXXX
Program element XXXXX	$XXXXX	
Program element XXXXX	XXXXX	
Department of the Navy		XXXXX
Program element XXXXX	$XXXXX	
Department of the Air Force		XXXXX
Program element XXXXX	$XXXXX	
Defense Agencies		XXXXX
Program element XXXX	$XXXXX	
Other U.S. Government		XXXXX
Other foreign		XXXXX
TOTAL FUNDING		$XXXXX

APPLICATIONS	CURRENT DOLLARS (MILLIONS)	
Major system equipment		$XXXXX
System project manager		XXXXX
System test and evaluation		XXXXX
Common support equipment		XXXXX
Peculiar support equipment		XXXXX
Training		XXXXX
Data		XXXXX
Operational site acquisition		XXXXX
Industrial facilities		XXXXX
Initial spares and repair parts		XXXXX
TOTAL FUNDING		$XXXXX

[1]Refer to DoD Directive 5000.34 (reference (g)).

MANPOWER

The IPS will have a one-page manpower annex including the following:

A. Current manpower estimate for military force structure:

	UNIT MANNING[2]			PROGRAM TOTALS[4]		
UNIT TYPE[1]	PROGRAM ALTERNATIVE	REFERENCE SYSTEM	NO. OF UNITS[3]	ACTIVE MILITARY	RESERVE COMPONENT	OTHER

B. Net change in total force manpower associated with the proposed system deployment:

	Active Forces	Reserves	DoD Civilians
Number of Authorizations			

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[1] List each unit type that will operate the system or primary system elements, including unit types that provide intermediate maintenance under peacetime and wartime conditions of system components. Examples of unit types are maintenance department, munitions maintenance training branch.

[2] For each unit type, show the manning required to satisfy the most demanding mission (normally combat employment, but may be precombat readiness for certain naval vessels and systems on alert). Show total unit manning for operating units, organizational level direct support units, and dedicated intermediate support units. For units that provide intermediate level support to many primary systems, such as naval shore-based intermediate maintenance departments, show manning equivalent of the work-years of work attributable to program the alternative. Denote manning equivalents with an asterisk. Identify any new career fields or occupational specialties and any significant shifts in skill levels.

[3] Number of units of each type in the planned force structure for the program alternative.

[4] Multiply number of units by unit manning, and equivalent manning by quantity of systems deployed, to obtain total manning required for units operating or supporting the program alternative system. Show how these requirements are expected to be satisfied; for example, active military authorizations, reserve component authorizations, or other to be identified in footnotes. Unprogrammed requirements must be shown as "other."