

April 30, 1981

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
CHAIRMAN OF THE JOINT CHIEFS OF STAFF  
UNDER SECRETARIES OF DEFENSE  
ASSISTANT SECRETARIES OF DEFENSE  
GENERAL COUNSEL  
ASSISTANTS TO THE SECRETARY OF DEFENSE

SUBJECT: Improving the Acquisition Process

On 2 March 1981, I directed a 30-day assessment of the Defense acquisition system with the priority objectives of reducing cost, making the acquisition process more efficient, increasing the stability of programs, and decreasing the acquisition time of military hardware. The report, delivered to me on 31 March 1981, provided many specific recommendations and posed a number of major issues for decision.

I have discussed the report with the Steering Group, the Joint Chiefs of Staff, the Service Secretaries, and the Under Secretaries and selected Assistant Secretaries of Defense. Based on the report and those meetings, the Secretary and I have decided to make major changes both in the acquisition philosophy and the acquisition process itself. We are convinced that we have now a historic and unique opportunity to significantly improve the Defense acquisition system. We ask for your cooperation and assistance in carrying out these decisions.

The acquisition decisions are recorded in detail in the attachments to this memorandum. I would like to highlight here the major decisions and their implications for DoD in the following paragraphs.

#### DoD Acquisition Management Philosophy

The DoD management philosophy that I described in my 27 March 1981 PPBS decision memorandum also applies to the acquisition policy and process. Through controlled decentralization, subordinate line executives will be held accountable for the execution of policy decisions and programs as approved. The review of the acquisition process is a good example of participative management where the Services and other DoD staffs, working together, have jointly agreed on

what should be done. All points of view were considered prior to decision. Now that decisions are made, the Secretary and I expect full support of DoD staffs and the Services in implementation.

I affirm the following acquisition management principles:

1. We must improve long-range planning to enhance acquisition program stability.
2. Both OSD and the Services must delegate more responsibility, authority and accountability for programs. In particular, the Service program manager should have the responsibility, authority and resources adequate to execute efficiently the program for which he is responsible.
3. We must examine evolutionary alternatives which use a lower risk approach to technology than solutions at the frontier of technology.
4. We must achieve more economic rates of production.
5. We must realistically cost, budget, and fully fund in the FYDP and Extended Planning Annex, procurement, logistics and manpower for major acquisition programs.
6. Readiness and sustainability of deployed weapons are primary objectives and must be considered from the start of weapon system programs.
7. A strong industrial base is necessary for a strong defense. The proper arms-length relationships with industry should not be interpreted by DoD or industry as adversarial.

#### DoD-QMB and Congress

Many of the decisions announced in this memorandum can be implemented within DoD's legislative authority. Some decisions need to be coordinated with OMB. A number of recommendations will need Congressional action before final implementation can take place. In those latter cases, we will work closely with appropriate Congressional committees and their staffs to explain and justify our recommendations for changes to legislative requirements.

#### DoD-Industry Relationship

While DoD should be tough in contract negotiations as part of the buyer-seller relationship, this does not mean that relationships between management and industry should necessarily be adversarial. Industry and government have a shared responsibility and must assume a new spirit of

cooperation. A healthy, innovative, and competitive industrial capability is a primary national objective. I direct all top DoD management, in OSD, in JCS, and in the Services, to ensure this is understood at all levels.

### Economies, Efficiencies and Savings

A primary objective in streamlining the DoD acquisition process is reducing costs. All DoD staffs and Service managers should keep this uppermost in their minds. We all must be more aggressive and imaginative in looking for ways to save money throughout all phases of the acquisition process. I look to each of you to use your enhanced authority to bring about major savings and improved methods of operation.

### Decisions to Improve Acquisition Policy and Process

The Secretary and I are determined to reduce substantially cost overruns, deploy adequate quantities of needed systems that are operationally effective and ready, and do this in the shortest possible time. We are convinced that the actions directed in the attachment will significantly contribute to achieving these objectives. The major decisions for improvement can be summarized in four categories:

#### Reduce Acquisition Cost

- Increase program stability by fully funding R&D and procurement at levels sufficient to ensure efficient cost, supportability and schedule performance, and minimizing changes to the approved program.
- Implement multi-year procurement to improve production processes, increase economy-of-scale lot buying, decrease financial borrowing costs and reduce administrative burden in contracting.
- Reduce administrative costs by simplifying procedures, seeking relief from costly legislative requirements and reducing the number of DoD regulations and directives.
- Encourage capital investment to increase productivity in the defense industry by improved contracting, more reasonable risk sharing, and increased incentives.
- Promote Services use of economic production rates to reduce unit costs and decrease acquisition time.
- Require Services to budget to most likely cost to reduce cost overruns and provide stability.

### Shorten Acquisition Time

- Implement Preplanned Product Improvement to reduce unit costs and decrease acquisition time.
- Provide adequate "front end" funding for test hardware.

### Improve Weapons Support and Readiness

- Stress acquisition strategies that provide incentives to contractors to attain reliability and maintainability goals.
- Establish readiness objectives early in development programs.

### Improve the DSARC Process

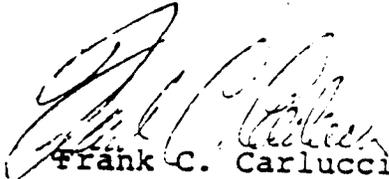
- Move toward controlled decentralization of the acquisition process to the Services.
- Reduce the data and briefings required by the Services and other DoD staffs.
- Tie the acquisition process more closely to the PPBS.

### Implementation of the Decisions

Implementation of the decisions announced in this memorandum is as important as the decisions themselves. Many decisions, even those within DoD's authority, will take time to implement fully. A large number of DoD managers will have to take part on a worldwide basis.

I assign overall responsibility to the Under Secretary of Defense for Research, Engineering and Acquisition for monitoring and follow-up of all decisions in this report. I expect him to establish an appropriate implementing and reporting system. The first report will be submitted to me by the end of May and every month thereafter until further notice.

Both the Secretary and I appreciate the work you and your staffs have provided during this assessment.



Frank C. Carlucci

Attachments

RECOMMENDATIONS	IMPACT		REQUIRED ACTION			COORDINATION						
	NEAR TERM (1 YEAR)	LONG TERM	INTERNAL ONLY	OMB OR CONGRESS ALSO	RESPONSIBLE OFFICE	Services	USDRM	ASD(C)	ASD (MRA&L)	ASD (PAGE)	OGC	
1. Management Principles	X		X		USDRE	X						
2. Preplanned Product Improvement		X	X		USDRE	X						
3. Multiyear Procurement		X		X	USDRE		X				X	
4. Increase Program Stability		X	X		ASD(PAGE)	X	X				X	
5. Encourage Capital Investment to Enhance Productivity		X		X	USDRE	X	X				X	
6. Budget to Most Likely Costs	X		X		ASD(C)	X	X				X	
7. Economic Production Rates		X	X		USDRE		X				X	
8. Assure Appropriate Contract Type		X	X		USDRE	X						
9. Improve Support and Readiness	X		X		ASD(MRA&L)	X	X					
10. Reduce the Administrative Cost and Time to Procure Items		X		X	USDRE						X	
11. Budget Funds for Technological Risk		X	X		USDRE	X						
12. Front End Funding For Test Hardware	X		X		USDRE	X						X

RECOMMENDATIONS	IMPACT		REQUIRED ACTION			COORDINATION					
	NEAR TERM (1 YEAR)	LONG TERM	INTERNAL ONLY	OMB OR CONGRESS ALSO	RESPONSIBLE OFFICE	Services	USDRM	ASD(C)	ASD (PA&E)	ASD (PA&E)	OGC
13. Governmental Programs		X		X	USDRE	X	X				X
14. Reduce the Number of DoD Directives	X		X		USDRE	X					
15. Funding Flexibility		X		X	ASD(C)	X	X				X
16. Contractor Incentives to Improve Reliability and Support		X	X		USDRE	X					X
17. Reduce DSARC Briefing and Data Requirements	X		X		USDRE	X	X				X
18. Budgeting for Inflation		X		X	ASD(C) / ASD(PA&E)	X	X				
19. Forecasting Business Base at Major Defense Plants	X			X	ASD(PA&E)	X					
20. Improve the Source Selection Process	X			X	USDRE	X					
21. Standard Operational and Support Systems		X		X	USDRE	X					X
22. Provide More Appropriate Design to Cost Goals		X		X	USDRE	X					X
23. Assure Implementation	X			X	USDRE	X					X

SUMMARY OF MAJOR RECOMMENDATIONS AND ISSUES FOR DECISION

ISSUES FOR DECISION	IMPACT		REQUIRED ACTION			COORDINATION				
	NEAR TERM (1 YEAR)	LONG TERM	INTERNAL ONLY	OMB OR CONGRESS ALSO	RESPONSIBLE OFFICE	USDP	ASD (C)	ASD (M&A&L)	ASD (P&E)	OGC
<p>A. <u>DSARC Decision Milestones</u></p> <p>Alt. 1: Reduces current four SecDef decisions to three.                      Alt. 2: Reduces SecDef decisions to two. (II and III)                      * Alt. 3: Reduces SecDef decisions to two. (I' and II')                      Alt. 4: Eliminates SecDef decisions; delegates to Service Secretaries.</p>	X		X		USDRE					
<p>B. <u>Mission Element Needs Statement</u></p> <p>* Alt. 1: Service submits MENS with POM. SecDef approves MENS by accepting POM.                      Alt. 2: Eliminates MENS. Congressional Descriptive Summary would document Milestone O.</p>	X			X	USDRE					
<p>C. <u>DSARC Membership</u></p> <p>Alt. 1: Maintain status quo.                      * Alt. 2: Would include appropriate Service Secretary or Chief as full member.</p>	X			X	USDRE					

\* Approved Alternative

SUMMARY OF MAJOR RECOMMENDATIONS AND ISSUES FOR DECISION

ISSUES FOR DECISION	IMPACT		REQUIRED ACTION			COORDINATION				
	NEAR TERM (1 YEAR)	LONG TERM	INTERNAL ONLY	OMB OR CONGRESS ALSO	RESPONSIBLE OFFICE	USDRS	ASD(C)	ASD (MRA&L)	ASD (SAFE)	OGC
<p><u>D. Defense Acquisition Executive</u></p> <p>* Alt. 1: Would retain USDRE as DAE.                      Alt. 2: Would designate DepSecDef as DAE.</p>	X		X		USDRE					
<p><u>E. DSARC Review Criteria</u></p> <p>Alt 1: Continues present system.                      * Alt 2: Doubles \$ guidelines for major systems to \$200M RDT&amp;E and \$1B Procurement in FY 80 \$.</p>	X		X		USDRE					
<p><u>F. DSARC-PPBS Decision Integration</u></p> <p>Alt 1: Continue present practice.                      * Alt 2: Provide that DSARC reviewed programs be accompanied by assurance that sufficient resources are in FYDP and EPA to execute the recommended program. DSARC review would certify program ready for next stage.                      Alt 3: Have DRB assume DSARC functions.</p>	X		X		USDRE					X

\*Approved Alternative

SUMMARY OF MAJOR RECOMMENDATIONS AND ISSUES FOR DECISION

ISSUES FOR DECISION	IMPACT		REQUIRED ACTION			COORDINATION					
	NEAR TERM (1 YEAR)	LONG TERM	INTERNAL ONLY	OMB OR CONGRESS ALSO	RESPONSIBLE OFFICE	Services	USDRR	ASD(C)	ASD (MRA&L)	ASD (PAGE)	OGC
<p><b>G. <u>Program Manager Control of Support</u></b></p> <p>Alt 1: Would continue present system.</p> <p>Alt 2: Services submit support resource requirements and readiness objectives with POM for systems entering early production.</p> <p>*Alt 3: Same as 2 but gives Program Manager more influence over support resources, funding and execution.</p>	X		X		ASD(MRA&L)	X	X				
<p><b>H. <u>Improve Reliability and Support</u></b></p> <p>*Alt 1: Requires early decision on system support approach, objectives and resources, and incentives to balance risks in reliability and support.</p> <p>Alt 2: Does not require up-front efforts to reduce risks. Shifts focus to fixing problems by subsequent re-design of hardware and incorporation of fixes.</p>	X		X		USDRE	X					

## Recommendation 1.

### MANAGEMENT PRINCIPLES

The Steering Group recommends that the Deputy Secretary of Defense reaffirm the following major acquisition management principles:

1. "An improved statement of long-range Defense policy, strategy and resources will be provided to the Services in order to establish a framework for military objectives, goals, and mission planning to enhance program stability.
2. Responsibility, authority and accountability for programs should be at the lowest levels of the organization at which a total view of the program rests.
3. Service Program Managers should have the responsibility, authority, resources, and guidelines (goals and thresholds) adequate to efficiently execute the program. This should include the system specific acquisition strategy for attainment of the required operational and readiness capability, and appropriate flexibility to tailor the acquisition strategy to estimates of the development priorities and risks.
4. Evolutionary alternatives which use a lower risk approach to technology must be examined when new programs are proposed. Solutions at the frontiers of technology must provide an alternative which offers an evolutionary approach. Pre-planned Product Improvement (P<sup>3</sup>I) should become an integral part of the Acquisition Strategy.
5. Achievement of economic rates of production is a fundamental goal of the acquisition process.
6. The Services should plan to realistically budget and fully fund in the FYDP and Extended Planning Annex (EPA) the R&D, procurement, logistics and manpower costs at the levels necessary to protect the acquisition schedule established at program approval points, and to achieve acceptable readiness levels.
7. Improved readiness is a primary objective of the acquisition process of comparable importance to reduced unit cost or reduced acquisition time. Resources to achieve readiness will receive the same emphasis as those required to achieve schedule or performance objectives. Include from the start of weapon system programs designed-in reliability, maintainability and support.
8. The proper "arms-length" buyer-seller relationship should not be interpreted by government or industry as adversarial. The DoD should be tough in contract negotiations. But weapons acquisition should be managed on a participating basis using industry as a full constructive team member. A strong industrial base is necessary for a strong defense.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
I Need More Information: \_\_\_\_\_  
Disapproved: \_\_\_\_\_

## Recommendation 2

### PREPLANNED PRODUCT IMPROVEMENT

A revolutionary system development approach which uses new and untried technology to meet a military threat can offer dramatic potential payoffs, but frequently ends up with large cost increases and schedule slippages.

An evolutionary approach offers an alternative which minimizes technological risk, and consciously inserts advanced technology through planned upgrades of those deployed subsystems which offer the greatest benefits. In this manner the lead time to field technological advances can be shortened while an aggressive scheduling of fielded performance improvements can be expected during the service life of the systems. This concept is called Preplanned Product Improvement (P3I), and is commonly used in commercial industry.

Recommendation - Most new and existing systems should be partitioned for performance growth through the application of sequential upgrades to key subsystems in order to reduce development risk, and take best advantage of technological advance.

Advantages - Can reduce acquisition time, reduce development risk and cost, and enhance fielded performance through the deployment of upgrades. A revolutionary approach can always be adopted when the demands of the threat or other compelling military needs require such an approach.

Disadvantages - The performance needed to meet a critical threat may dictate the use of distant technology, but the factors involved in such a decision are seldom incisive. Therefore, the choice between alternatives is not likely to be absolutely clear.

#### Action Required:

- USDRE, working with the Services, develop within 30 days a plan for implementing Preplanned Product Improvement including definitions and criteria for application.
- USDRE request the Services to evaluate ongoing programs to determine potential for payoff from the application of preplanned product improvement, and to present results at the next DSARC.
- USDRE assure Services have fixed the responsibility for review of opportunities for product improvement after any system reaches the field, and to develop a product improvement plan.

Approved: \_\_\_\_\_

Idea Needs More Development: \_\_\_\_\_

I Need More Information: \_\_\_\_\_

Disapproved: \_\_\_\_\_

MULTIYEAR PROCUREMENT

Recommendation: Encourage extensive use of multiyear procurement based upon a case-by-case benefit/risk analysis.

Advantages: Multiyear procurement could result in average dollar savings of 10 to 20% in unit procurement cost through improved economies and efficiencies in production processes, economy-of-scale lot buying, decreased financial borrowing costs, better utilization of industrial facilities, and a reduction in the administrative burden in the placement and administration of contracts. In addition, the stimulated investment in production equipment will result in lower-defect, higher quality products. The market stability will also enhance the continuity of subcontractor supply lines and thereby decrease acquisition time. Surge capability will also be improved.

Disadvantages: This funding technique fences in money and commits future Congresses. If used to excess, it would significantly reduce the flexibility of the Secretary of Defense to respond to unforeseen changes in the external threat. If a multiyear procurement was used to lock in a border line program, costs would be increased if the program was cancelled. In order to avoid these potential disadvantages, the following criteria are recommended as general guidelines to screen potential multiyear candidates: (1) significant benefit to the Government; (2) stability of requirements, configuration, and funding; and (3) degree of confidence in cost estimates and contractor capabilities.

Action Required:

- a. General Counsel must respond in writing to Congressman Daniel's Bill HR 745.
- b. USDRE and ASD(Comptroller) should brief Appropriation and Armed Services Congressional Committees on recommended multiyear procurement procedures and concepts.
- c. USDRE should prepare special policy memorandum to the Military Departments for SecDef signature defining procedures and requesting identification of potential FY 83 multiyear procurement candidates.
- d. USDRE and ASD(Comptroller) should modify DoD Directive 7200.4 and the Defense Acquisition Regulation (DAR) and should interface with OMB to modify Directive A-11 as required.
- e. SecDef will present FY 83 President's Budget containing multiyear candidates.

Approved: \_\_\_\_\_  
 Idea Needs More Development: \_\_\_\_\_  
 I Need More Information: \_\_\_\_\_  
 Disapproved: \_\_\_\_\_

Recommendation 4

INCREASE PROGRAM STABILITY IN THE ACQUISITION PROCESS

Program instability is inherently costly in both ~~time~~ and money. The 47 major programs covered by the December 31, 1980, Selected Acquisition Reports (SARs) reflected total cost growth of 129 percent over the Milestone II estimates. Reasons for growth are economic or inflation (27 percent), quantity changes (26 percent), estimating changes (18 percent), schedule changes (15 percent), support changes (7 percent), engineering changes (5 percent), and other changes (2 percent). Forty one (41) percent of all cost growth is due to quantity and schedule changes.

Of the 47 programs, 19 have had quantity increases, 20 quantity decreases, and 3 are unchanged. Schedule changes have resulted in reduced costs on 4 programs and increased costs on 41. The most common cause for these changes is financial. The budget levels and relative priorities of competing programs force tough decisions to terminate programs, reduce the number of weapons, stretch the development program, delay planned production or stretch the planned buy.

Recommendation: SecDef, OSD and Services should fully fund the R&D and procurement of major systems at levels necessary to protect the acquisition schedule established at the time the program is baselined, currently Milestone II. Limit stretch-outs due to funding constraints (except when mandated by the Secretary or Congress). Establish procedures which will phase the scheduling of sequential milestones so that manpower "peaks and valleys" can be minimized consistent with balancing the risks. In general, only changes which are directed by changed requirements or development problems should be made.

Advantages: Reduces costs and saves time by stabilizing schedules, quantities, and production rates. Will enhance the ability to plan force modernizations.

Disadvantages: Budget flexibility will be reduced.

Action Required: SecDef directs that during program and budget reviews by OSD (DRB) the Service Secretaries must explain and justify differences between program baselines established at Milestone II and the quantity and funding in the program or budget under review.

ASD(C) and ASD(PA&E) include above direction in FY-83 POM and Budget Guidance.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
I Need More Information: \_\_\_\_\_  
Disapproved: \_\_\_\_\_



ENCOURAGE CAPITAL INVESTMENT TO ENHANCE PRODUCTIVITY

Productivity in the defense sector of the U.S. economy has been lagging, in large part because of low levels of capital investment compared to U.S. manufacturing in general. Cash flow problems, tax policy, high interest rates, and low return on investment (ROI) tend to limit available investment capital. The industry views low profits and program instability as precluding investment in capital equipment. This situation has two major implications: a tendency to shift from defense to commercial business, and a decrease in funds available for facilitization.

Recommendation: Encourage capital investment.

Advantages: Will increase long-term investments which should lead to lower unit costs of weapons systems. Increase productivity.

Disadvantages: Earlier Government disbursements. Some reduction in tax revenues.

Action Required: USDRE should have the prime responsibility to implement the following actions working closely with General Counsel, Legislative Affairs, and the Service Material Commands.

a. General Counsel should support legislative initiatives to permit more rapid capital equipment depreciation and to recognize replacement depreciation costs by amending or repealing Cost Accounting Standard (CAS) 409, "Depreciation of Tangible Assets."

b. Structure contracts to permit companies to share in cost reductions resulting from productivity investments. Modify the Defense Acquisition Regulation (DAR) profit formula. Allow for award fees inversely proportional to maintainability costs.

c. Increase use and frequency of milestone billings and advanced funding. Expedite paying cycle.

d. Provide for negotiation of profit levels commensurate with risk and contractor investment; ensure that recent profit policy changes are implemented at all levels.

e. Instruct the Services of the need to grant equitable Economic Price Adjustment (EPA) clauses in all appropriate procurements. Contract price adjustments made in accordance with EPA provisions should recognize the impact of inflation on profits. Ensure that these clauses are extended to subcontractors.

f. Increase emphasis on Manufacturing Technology Programs.

g. Provide a consistent policy which will promote innovation by giving contractors all the economic and commercial incentives of the patent system. Provide policies to protect proprietary rights and data.

h. General Counsel should work to repeal the Vinson-Trammell Act.

Approved: \_\_\_\_\_  
 Idea Needs More Development: \_\_\_\_\_  
 I Need More Information: \_\_\_\_\_  
 Disapproved: \_\_\_\_\_

Recommendation 6

BUDGET TO MOST LIKELY COSTS

Intentionally low initial cost estimates are a prime contribution to apparent cost growth. Program costs are sometimes purposely understated either because DoD is forcing a program to fit available funding rather than the funding it takes to do the job, or because the contractors are purposely lowering their cost estimates in order to win a contract with hopes of recovering costs on follow-on contracts. Either practice is referred to as "buying in." When the actual costs become apparent, DoD is severely criticized for cost overruns and there are insufficient funds available to procure at economic production rates. Also, the negotiated contract cost does not include future engineering changes or post-contract award negotiations which can drive costs higher.

Recommendation: Require the Services to budget to most likely or expected costs, including predictable cost increases due to risk. Provide incentives for acquisition officers and industry to make and use realistic cost estimates.

Advantages: Less cost growth. More realistic long-term defense acquisition budget. Increased program stability.

Disadvantages: Difficulty in determining if a contractor is providing realistic estimates. Political difficulty in rejecting bids that project prices lower than costs. Difficult to budget funding greater than publicly-known contractual funding.

Action Required: ASD(C) require the Services to budget to most likely or expected costs including predictable cost increases due to risk, instead of the contractually agreed-upon cost. USDRE and the Services provide incentives for acquisition officers and contractors to accurately project costs, including financial incentives and performance evaluation considerations to DoD personnel, and profit incentives to industry to reduce costs.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
I Need More Information: \_\_\_\_\_  
Disapproved: \_\_\_\_\_

ECONOMIC PRODUCTION RATES

The cost and time needed to put a weapon system into the field can be reduced by establishing and sustaining economic rates of production (i.e., the rate at which unit cost doesn't decrease significantly with further rate increases). Tight budgets and strong competition between programs have forced many programs to accept funding levels in the budget which will not sustain an economic rate of production.

A commitment to economic production rates cannot rule out sound arguments for lower (or higher) rates. For example, the Services may wish to stretch a program over a number of years in order to preserve a warm production base to permit rapid mobilization to meet a crisis or war. However, this requires stockpiling of materials, parts and subsystems to be effective.

Recommendation: Services must use economic production rates in their program and budget requests, or explain and be prepared to defend the reason why a different rate was selected.

Advantages: Save time and reduce cost of acquiring new systems.

Disadvantages: Will buy out the total system faster (shorter production run for a given quantity) with peak funding competing with other systems, possible workload fluctuations in certain industries with occasional dead time and possible erosion of the industrial base. Can increase cost of correcting support problems.

Action Required: Secretary of Defense establish policy requiring Services to fund programs at economic rates or justify any differences during budget reviews by OSD and the DRB. USDRE and ASD(C) include this requirement in the FY 83 program and budget guidance.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
I Need More Information: \_\_\_\_\_  
Disapproved: \_\_\_\_\_

Recommendation 8

ASSURE APPROPRIATE CONTRACT TYPE

Industry has repeatedly, over a long period, expressed serious concerns about the recurring use of the wrong type of contract. In particular, fixed price contracts are frequently employed for RDT&E and early production, which have legitimate cost uncertainties. This leads to a high risk situation for the contractors and to cost overruns for DoD. Current DoD policies and regulations give guidance as to the use of appropriate contract types; however, this guidance is not being followed in the field.

Recommendation: Give the Program Managers the responsibility to tailor contract types to balance program needs and cost savings with realistic assessment of an acceptable balance of contractor and government risk. Recommendation 1/Management Principle 3 states that the Program Managers be given the authority to determine the specific acquisition strategy.

Advantages: Precludes a company from being forced to assume cost risk beyond their financial ability.

May increase competition if contractor risks are recognized.

Gives the Program Managers more flexibility to accommodate program needs.

Disadvantages: Government assumes more cost risk.

Action Required: USDRE establish an OSD, Service, Industry working group to develop an implementation plan to ensure that appropriate contract types are used. USDRE and the Service Secretaries ensure that Program Managers have the responsibility for determining the appropriate contract type. USDRE should ensure that the regulations are clear on this point.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
I Need More Information: \_\_\_\_\_  
Disapproved: \_\_\_\_\_

IMPROVE SYSTEM SUPPORT AND READINESS

As a result of recurring problems with weapons system support, the recent revision of acquisition policies includes a major emphasis on support issues, including reliability, maintenance, spares, test equipment, and maintenance manpower. These recent policies are generally sound, are not directly influenced by the major acquisition process options presently under consideration and can be undertaken under any option.

To be effective the policies require Secretary of Defense commitment. The need for this specific commitment results from the competition among the conflicting objectives of high performance, lower cost, shorter schedules, better reliability and maintenance, and support.

Recommendation: Establish readiness objectives for each development program to include estimates of the readiness level to be achieved at early fielding and at maturity. Implement acquisition policy establishing "designed-in" reliability and readiness capabilities. The implementation must emphasize the objectives of shortening the overall time to deliver equipment to the troops which meet mission and readiness needs; the need for improved estimates of the R&D and support resources required; and additionally, ask that some force element(s) be targeted for a major improvement in designed-in support capability to be less dependent on a support tail.

Advantages: Clarifies that improvement in readiness is a major objective of the Administration, and that implementation must take place.

Disadvantages: Will require additional technical effort and resources early in acquisition programs.

Action Required: MRA&L draft SecDef policy letter to be issued within thirty days, reaffirming weapons support policy and objectives, and tasking the Services to develop implementing guidelines, including procedures for addressing support early in acquisition programs.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
I Need More Information: \_\_\_\_\_  
Disapproved: \_\_\_\_\_

REDUCE THE ADMINISTRATIVE COST AND TIME TO PROCURE ITEMS

In 1974, less stringent requirements were established for DOD Contract procedures associated with purchases under \$10,000. The purpose was to reduce both the time and paperwork costs to a level commensurate with the value of the item being purchased. Over the years the tendency of a bureaucracy to take precautions has expanded the paperwork associated with a procurement, and inflation has reduced the purchasing power of the dollar until the \$10,000 item of 1974 would cost almost twice that much to purchase today.

A similar inequity exists in the administrative procedures governing contract funding execution. Department of Defense and Service procedures place numerous administrative requirements on the obligation of funds. They provide unnecessarily cumbersome safeguards for the public interest, to a certain extent thereby, thwarting that interest. There is also a general tendency to apply the most burdensome procedures, even if administrative shortcuts are allowed. The DoD is motivating its contract and fund administrators to avoid the least possibility of criticism rather than to use economic procedures.

a. Recommendation: Raise the \$10K limit for purchase order contract use to \$25K to accommodate inflation and reduce unnecessary paperwork and review. Letter is enroute from Joint Logistics Commanders to DEPSECDEF recommending change. Proposal is currently in staffing at OMB for inclusion in the Uniform Procurement System (UPS) and as a legislative initiative.

Action Required: DEPSECDEF recommend that OMB (OFPP) initiate change to 10 USC 2304.

b. Recommendation: Raise threshold for contractor costing data input from \$100K to \$500K to accommodate inflation and reflect current auditing procedures. (Paperwork load is such that only data for contracts over \$500K is actually audited today.)

Action Required: DEPSECDEF recommend that OMB (OFPP) initiate legislative change to USC 2306.

c. Recommendation: Raise threshold for Service Secretary review of Contract Determination and Findings (D&F) for RDT&E from \$100,000 to \$1 million. Current level was set in mid-1960s. Higher level would still cover 90 + % of expenditures (dollars). Higher limit supported by JLC.

Action Required: DepSecDef recommendation to OMB (OFPP) for approval; subsequent change to Defense Acquisition Regulations (DAR).

d. Recommendation: Encourage greater use of class (D&Fs) which allows one D&F to cover multiple contracts. Reduces total volume of contracts which must be reviewed, thus speeding up processing time.

Action Required: USDR&E prepare policy statement encouraging greater use of class D&Fs.

e. Recommendation: Raise reprogramming thresholds from \$2M to \$10M for RDT&E appropriations and from \$5M to \$25M for procurement. Thresholds were set 10 years ago with no inflation accommodation. Greatly reduces Service flexibility to answer program.

Action Required: Renew SecDef/DepSecDef efforts to obtain Congressional Committee approval (HASC, SASC, HAC, SAC).

Advantages (all above recommendations): Provides immediate relief from unnecessary paperwork burden. Reduces administrative lead time, which will result in reductions in in-house and industry overhead cost. Supports a far more efficient Government cash flow management.

Disadvantages: Less opportunities for legal reviews.

f. Recommendation: Eliminate the need for non-Secretarial level D&Fs for competitive negotiated contract awards.

Advantages: Reduced paperwork and administrative lead times. In conjunction with recommendation C above, to increase D&F thresholds, the D&F requirement would be considerably reduced.

Disadvantages: Many smaller procurement actions would not be reviewed above program office level.

Action Required: SecDef submit recommended legislation to review public law.

g. Overall Action: USDR&E prepare implementation plan and required SecDef letters within 60 days. Tie cost thresholds to inflation.

Approved:       

Idea Needs More Development:       

I Need More Information:       

Disapproved:

INCORPORATE THE USE OF BUDGETED FUNDS  
FOR TECHNOLOGICAL RISK

Material development and early production programs are subject to uncertainties. Program managers who explicitly request funds to address these uncertainties usually find these funds deleted either in the DoD PPBS process, by OMB, or by Congress. Then when such uncertainties occur, undesirable funding adjustments are required or the program must be delayed until the formal funding process can respond with additional dollars.

The Army has initiated, and Congress has accepted, a Total Risk Assessing Cost Estimate (TRACE) to explicitly address program uncertainties in the development of RDT&E budget estimates. The Army is studying the application of this concept to early production cost estimates. The other Services lack a similar concept to justify reserve funds for dealing with developmental uncertainties.

Recommendation: Increase DoD efforts to quantify risk and expand the use of budgeted funds to deal with uncertainty. Encourage all Services to use such budgeting where appropriate.

Advantages: Cost estimates will be more realistic over time. Programs will be more fully funded and overall programs will be more stable.

Disadvantages: Can encourage a more costly treatment of problems that might be solved in other ways (self-fulfilling prophecy). Higher initial program estimates would result in fewer programs within a stated total obligation authority.

Action Required: SecDef emphasize the requirement to evaluate, quantify and plan for risk. USDRE direct all Services to budget funds for risk. In particular, each Service should review the TRACE concept and either adopt it or propose an alternative for their use to USDRE within 60 days.

Approved:       
Idea Needs More Development:       
I Need More Information:       
Disapproved:

Recommendation 12

PROVIDE ADEQUATE FRONT END FUNDING FOR TEST HARDWARE

Weapon system development programs often have too few test articles to allow parallel tests for performance, reliability, etc., and in order to shorten development time without substantially increasing risks. Procurement of too few test articles forces a sequential approach whereby the available test articles are dedicated exclusively to development testing. Consequently, operational and other testing cannot be accomplished concurrently (within acceptable levels of risk) to save time.

In addition to designing for the major performance objectives, increased emphasis should be placed on designing for reliability by providing adequate design margins, while giving full consideration to adequate testing, fault isolation and maintainability. Adequate test hardware should be provided in the program to permit early combined environmental tests of the subsystems and subsequent system tests, to allow iteration of the design using the test-fix test process to achieve early design maturity.

Recommendation: Provide sufficient test hardware to meet the subsystem, system and software engineers' needs to properly engineer and test development of the end item hardware using parallel testing to reduce overall schedule time. The number of test articles must be defined and explained during preparation of Service programs and budgets.

Advantages: Saves time in the total acquisition process by emphasizing reliability up front and eliminating lengthy and costly problem identification and correction effort; also allows realistic concurrent development and operational testing.

Disadvantages: Requires increased front end funding.

Action Required: USDRE ensure that the acquisition strategy identify plans for and funding required to acquire adequate subsystem and system test hardware to reduce overall schedule time and risks.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
I Need More Information: \_\_\_\_\_  
Disapproved: \_\_\_\_\_

Recommendation 13

GOVERNMENTAL LEGISLATION RELATED TO ACQUISITION

Over the past decade, the acquisition process has become overburdened with governmental legislation and requirements. Individually, these regulations have worthwhile objectives; collectively, they impose a costly and burdensome requirement on industry and the acquisition process.

Recommendation: Seek DoD relief from the more burdensome requirements of governmental regulations.

Advantages: Less cost to contractors in doing business with the Government. Reduce program costs. Simpler contracting procedures. Faster contract awards.

Disadvantages: Reduced benefits which are considered important national goals. Request for relief will certainly spark debates with the various interested groups.

Action Required: USDR&E establish joint OSD and Service team to weigh the impact of the various governmental requirements and regulations on the efficiency and effectiveness of the total DoD acquisition and contracting process. Industry and OMB should participate to the maximum extent possible. A report should be prepared for the DepSecDef within 45 days.

Approved:

Idea Needs More Development:

I Need More Information:

Disapproved:

  
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REDUCE THE NUMBER OF DOD DIRECTIVES

The current acquisition directive refers to 114 (up from 15 in 1971 and 26 in 1977) related directives and instructions. The Services emulate these directives in implementation with their own implementing instructions. There is rarely a challenge to these well-intentioned directions, nor is there a cost-benefit check performed. Program manager and industry initiatives are often stilted by overregulation. With each new directive additional paperwork, manhours and other direct costs are expended in compliance. Congressional, GAO, industry, OSD, and OFPP studies have indicated that contractually imposed management systems and data requirements cost 8 cents out of every contract dollar. With defense contracting approaching \$100 billion a year, it means that these management-imposed requirements cost approximately \$8 billion per year. A 20% improvement would save \$116 million per year.

Recommendation: Reduce the number of directives. Require that the Defense Acquisition Executive be the sole issuer of DoD directives related to acquisition. This would not mean that DAE would draft all such documents, only that DAE would have final review and releasing authority.

Advantages: Coordinates requirements and reduces the issuance of superfluous directives. Will reduce program costs to the extent that directives require reports, data, documentation.

Disadvantages: Adds an additional layer to the process of issuing or revising a directive. Places the DAE in control of directives for areas of acquisition for which he may have little expertise.

Action Required: USDRE establish a joint OSD, Service, Industry team to provide recommendations within 90 days to substantially reduce the number of directives, and the documentation required in contracts.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
I Need More Information: \_\_\_\_\_  
Disapproved: \_\_\_\_\_

FUNDING FLEXIBILITY /

Program continuity requires that we budget for procurement funds more than a year in advance of the actual transition date of major acquisition programs from R&D to procurement. Since most development program schedules are success oriented, sometimes the procurement transition date arrives and the system is not ready to buy. Because procurement funds have been budgeted, there is considerable pressure to proceed with production rather than accept program delay. If the Secretary (and/or Military Departments) had the authority to transfer these procurement funds to R&D to correct deficiencies without the prior approval of OMB and Congress, it could significantly decrease the time involved in resolving program problems. Section 734 of P.L. 96-527 (DoD Appropriation Act) provides a general authority for Transfers, not to exceed \$750 million between DoD appropriations. Its use requires a determination by SecDef that such action is in the National Interest and must have prior approval by OMB. Our current reprogramming arrangements with the Congressional Oversight Committee provide that any such transfer is of "special interest of the Congress" and requires their prior approval, in effect, negating the independent use of transfer authority by the Department.

The proposal would require the support of the Oversight Committees and OMB. Ideally, such approval should be included in the general provisions of the Appropriations Act as a subsection of 734. We will have to work closely with Congress to ensure that this authority would apply only to the movement of funds programmed for an individual weapon system, and would not be used to transfer funds between programs.

Recommendation: Obtain legislative authority to transfer individual weapon system Procurement funds to RDT&E.

Advantages: Provides DoD with more flexibility to resolve weapon system funding deficiencies.

Avoids program delays associated with OMB/ Congressional review and approval of funding adjustments.

Maintains program stability by enabling program manager to resolve problems within total available acquisition funding of the program involved

Disadvantages: OMB/Congressional visibility occurs after the fact.

Could jeopardize current appropriation and authorization process.

Could jeopardize current reprogramming arrangements with Congress.

May be destabilizing.

Action Required: ASD(C), working with the General Counsel, OMB and Congress establish procedures for DoD approval of the transfer of funds in a given fiscal year from Procurement to RDT&E for an individual weapon system when the Secretary of Defense determines that it is in the National Interest to do so.

Approved: \_\_\_\_\_

Idea Needs More Development: \_\_\_\_\_

I Need More Information: \_\_\_\_\_

Disapproved: \_\_\_\_\_

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CONTRACTOR INCENTIVES TO IMPROVE RELIABILITY AND SUPPORT

Industry has said that even though there is recently ~~more~~ attention paid to "support" in DoD solicitations, there is a widespread belief that performance and schedule are DoD's principal objectives. There is a need for industry to apply more of their design talents to reducing reliability and support problems. Beyond this a need to improve the identification and specification of maintenance manpower constraints and for industry to include these constraints in the designs.

Recommendation: Acquisition strategies should identify the approaches to incentivize contractor attainment of reliability and maintainability (R&M) goals and reduce maintenance manpower and skill levels. These should include the approach taken in the RFP evaluation, as well as specific awards, incentives and guarantees, such as specific rewards for improving reliability. The Services should develop greater expertise in support related contractor incentives through analysis of experience gained on DoD programs.

Improvements should be developed in the method of projecting critical maintenance manpower skill limitations and translating these into design constraints and objectives for inclusion in RFPs and specifications.

Advantages: Improves reliability and support. Reduces maintenance manpower requirements.

Disadvantages: Incentives other than competition require additional funds.

Action Required: USDRE working with the Services, develop guidelines to include the approaches to incentivize contractors to improve support within 60 days, followed by a USDRE and Service evaluation of incentives within the next year.

USDRE develop with the Services, within one year, improved approaches to translate maintenance manpower skill projections into system design objectives.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
I Need More Information: \_\_\_\_\_  
Disapproved: \_\_\_\_\_

DECREASE DSARC BRIEFING AND DATA REQUIREMENTS

During recent years there has been a growing tendency to centralize the decision process within the DoD. This practice has multiplied throughout the numerous levels of authority in each of the Services, and has complicated the review process. This practice has, in and of itself, lengthened the acquisition cycle; created cost increases due to delays in decisions; confused the authority, responsibility and accountability of the designated Services Managers; and has stifled innovation which could produce program improvements leading to cost savings. The principle of decentralization should be applied to acquisition management.

Recommendation: Emphasize the requirement to achieve appropriate delegation of responsibility, authority and accountability to and within each Service for system acquisition to reduce the time and effort required for DSARC and Service major system reviews.

Advantages: Reduced system cost and shorter acquisition cycles. More efficient reporting by and within the Services. More streamlined program management. More efficient DSARC and other program reviews. Potential elimination of layered management resulting in lean organizations.

Disadvantages: Some risk of losing a thorough functional analysis of the system because of the elimination of more detailed reviews.

Action Required: USDRE make explicit the changed character and the reduced number of briefings and data for the DSARC review.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
I Need More Information: \_\_\_\_\_  
Disapprove: \_\_\_\_\_

Recommendation 18

BUDGETING WEAPONS SYSTEMS FOR INFLATION

Historically, inflation predictions have been lesser than the actual inflation that come to pass. The situation has been most severe in major weapon programs that spend out slowly and extend into those years when inflation estimates have been poorest. The result is that unpredicted inflation has cut heavily into real program by as much as \$6 or \$7 billion a year. In addition to the serious underfunding of major weapon and other purchases, DoD is charged with poor management because of the amounts of cost growth in current dollars appearing in reports and in the process.

Recommendation: Review various methods and alternatives for budgeting more realistically for inflation.

Required Action: Comptroller and PA&E develop in more detail the various alternatives addressing the inflation issue as related to planning and budgeting for major acquisition programs and provide a decision paper to the Deputy Secretary of Defense within 30 days; discuss draft options with OMB and appropriate Congressional staff.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
I Need More Information: \_\_\_\_\_  
Disapproved: \_\_\_\_\_

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Recommendation 20

IMPROVE THE SOURCE SELECTION PROCESS

Some DoD competitively-selected contractors have performed poorly. In some instances, source selection criteria do not sufficiently take into account past performance or plans for future phases of a program. Also, the credibility and realism of contractor cost proposals are not always challenged.

Recommendation: Improve the source selection process to place added emphasis on past performance, schedule realism, facilitation plans and cost credibility. De-emphasize the importance of lowest proposed cost. Devote more attention to evaluating contractors' performance during and at the time of contract completion. Provide award fee contract structure to encourage good performance. This both provides an incentive for good performance, and a measure of contractor performance to be used in future source evaluations. Establish quality ratings where possible and ensure these past performance ratings are available for use by source selection personnel.

Advantages: Eliminate poor performers, eliminate proposals that are unrealistically priced, thereby reducing the risk of buy-ins.

Disadvantages: May limit competition. Will be difficult to implement and apply fairly.

Action Required: USDRE modify the source selection directive, DoDD 4105.62, to emphasize the objectives stated above. USDRE establish a DoD system for recording, documenting and sharing contractor performance.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
I Need More Information: \_\_\_\_\_  
Disapproved: \_\_\_\_\_

Recommendation 21

DEVELOP AND USE STANDARD OPERATIONAL AND SUPPORT SYSTEMS.

New subsystems and support systems are developed that are peculiar to specific weapon systems, yet have many performance features in common with other systems. Use of standard, off-the-shelf subsystems and/or support systems for some of the long lead time items can reduce development time.

Recommendation: Identify and develop standard subsystems and support systems or their technology (independent of weapon systems) to meet projected weapon system needs. Support a program of weapon support R&D to put diagnostic, repair, and logistic technology on the shelf.

Advantages: Earlier deployment with lower risk. Enhanced supportability. Reduction in operating costs.

Disadvantages: Standard systems or technology may not be best match for the weapon system needs. Requires increased funding to implement. Could be overemphasized.

Action Required: USDRE working with the Services submits a proposed program for FY 82 and beyond within six months.

Approved: \_\_\_\_\_

Idea Needs More Development: \_\_\_\_\_

I Need More Information: \_\_\_\_\_

Disapproved: \_\_\_\_\_

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Recommendation 22

PROVIDE MOPE APPROPRIATE DESIGN TO COST GOALS

Design to Cost (DTC) fee awards are made as a result of paper analysis. There is little or no tie to actual costs in production. DTC incentive fees and awards are payable during and at the conclusion of Full-Scale Development. Award is based on the forecasted average cost for the production quantity.

Recommendation: Provide appropriate incentives to industry by associating fee awards to actual costs achieved during the early production runs.

Advantages: Ties award to "real" achievement. Makes DTC meaningful.

Disadvantages: Changes in program (rates, quantity, inflation, etc.) complicate analysis of results. Longer time between DTC effort and award payment.

Action Required: Insure program managers and contracting officers develop contract terms and procedures to provide for the payment of Design to Cost (DTC) awards and incentives based upon costs actually achieved during early production runs. Base payments on demonstration that initial costs are on track with DTC goal for total forecasted production.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
I Need More Information: \_\_\_\_\_  
Disapprove: \_\_\_\_\_

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## ASSURE IMPLEMENTATION OF ACQUISITION PROCESS DECISIONS

The acquisition process has been studied many times by many organizations. Most of the recommendations presented here have been made before. However, few of these recommendations have been implemented. Congress, GAO, OMB, OFPP, industry, and OSD have continuously criticized the Services for not following DODD 5000.1 and DODI 5000.2. A recent Navy acquisition study reviewed the implementation status of past acquisition process studies and found that of 50 recurrent recommendations, some progress is perceived to have occurred in 29 and almost no progress is perceived to have occurred in the remainder.

A difficulty with implementing recommendations regarding the acquisition process is the great number of players involved to make implementation succeed. This requires persistent, intensive, follow-up effort to make sure that the recommendations really do take hold. The most common reason for non-implementation is simply that relentless action on the part of top management is not taken to insure that recommendations are, indeed, implemented. OSD has, in the past, focused a great amount of management attention on policy development and resolution. However, OSD has not monitored implementation of the policies on a program basis.

Since potential decisions could lead to major changes to the process and even to DoD organizations and their roles, it will be difficult for the existing DoD organizations to execute changes without high level attention by the SecDef and DepSecDef. Elimination of the complexity inherent in the current process is masked unless the many different types of changes are considered in terms of the aggregate administrative and reporting load generated.

A fundamental determination which is required for each decision is whether implementation should reflect centralized control under OSD or decentralization to the Services. In selected areas a uniformity of action across Services may be desired.

Recommendation: Ensure that a determined management translates approved recommendations into implementable direction and fixes responsibility so that management has visibility of the actions taken.

Advantages: This plan will not succeed without a well planned, intensive, high visibility, relentless implementation phase. Without this effort, this report will degenerate into another study.

Disadvantages: Implementation will require a priority and time commitment from all levels of management ranging from the SecDef to the Program Manager for a number of years.

Action Required: a. Assign overall responsibility to USDRE for monitoring and follow-up of all decisions made in this report.

b. USDRE will assign a prime responsibility for action on every recommendation and decision in this report. In general, these assignments have been specified under the "Action Required" sections; however, in certain cases specific action responsibilities will be defined in the immediate future.

c. USDRE should consider utilizing a working group containing OSD and Service representatives to assist in implementation.

d. USDRE should consider utilizing a number of creative techniques to translate the intent of these recommendations to all levels. This could include formal training sessions, conferences, video taped training films, articles, and policy letters.

e. Both the SecDef and the DepSecDef must maintain a personal interest in ensuring that the changes are implemented, that there is continuous action to improve the acquisition process, that periodic reviews take place, and that all Services and OSD staff be made aware of the SecDef priority interest on this subject.

Approved: \_\_\_\_\_  
Idea Needs More Development: \_\_\_\_\_  
Need More Information: \_\_\_\_\_  
Disapproved: \_\_\_\_\_

## MAJOR ISSUES FOR DECISION

This section presents for decision the major issues identified in the Defense Systems Acquisition Review.

### A. Issue: WHAT SHOULD BE THE SECDEF (DSARC) ~~DECISION~~ MILESTONES?

The current process provides four discrete SecDef decision points. All of the alternatives discussed below retain the current "milestone" process structure. However, all alternatives either de-emphasize or reduce the number of formal OSD level milestone reviews and SecDef decisions. Under some alternatives certain milestone reviews are delegated to the Service Secretaries. The Secretary of Defense decision authority and acquisition policy responsibilities are maintained and exercised through the PPBS process and/or by invoking explicit disapproval of proposed Service program acquisition decisions at any stage in the cycle. There are four alternatives shown schematically on page .

Alternative One (Page D-11) reduces the current four discrete SecDef decision milestones to three (with flexibility for only two) by altering Milestone Zero.

Milestone Zero SecDef review and decision is accomplished through the annual Planning, Programming and Budgeting System (PPBS).

Although Milestone I is retained, a SecDef decision would generally be necessary only when a program requires a significant prototype (Advanced Development) phase. When held, Milestone I documentation would be reduced.

Milestone II and III reviews would continue to be conducted by the DSARC with final approval action by the SecDef. Any pre- or post-Milestone III reviews deemed necessary would be held at the Service level except under unusual circumstances.

- Pro: - Reduced administrative burden.
- Increased flexibility
- Initial development program reviews and decisions are speeded.
  
- Con: - May be perceived as a lessening of SecDef control.

Alternative Two (Page D-16) reduces the number of formal SecDef DSARC reviews to Milestones II and III.

Milestone 0 would be reviewed by OSD during PPBS as in Alternative One above.

Milestone I would be delegated to the Service Secretaries. SecDef authority and oversight is maintained through notification of Service decisions with veto/disapproval authority if necessary.

Milestones II and III receive a full DSARC review and DSARC approval.

- Pro: - Further delegation of program responsibility and reduction in administrative burden.
- Front-end process is speeded as in Alternative One.
- Con: - Further reduction in SecDef control over acquisition of major programs at front-end; may restrict SecDef ability to redirect due to program momentum.
- May not be considered proper implementation of A-109 with regard to Milestone I (A-109 requires SecDef to retain decision authority at the four Milestone Decisions).

Alternative Three (Page D-19) reduces the SecDef decision milestones to two, but ensures full SecDef involvement in major program initiation, and improved program definition for program go-ahead. The first decision point, "Requirements Validation: (equivalent to combination of Zero and One), serves as a full DSARC/SecDef review and approval of major program initiation including threat, weapons concept, risk and schedule, readiness, and affordability goals. At this point a specific "not-to-exceed" dollar threshold is established which sets the funding to carry the program through Concept Validation and early Full-Scale Development activity up to the second decision point, "Full-Scale Development and Production." The goals to be achieved by, and the timing of the second SecDef decision point are defined at the first decision point.

The Program Go-Ahead, second SecDef decision point, occurs somewhat later than Milestone II in a "normal" program schedule, and it is selected to coincide with Preliminary Design Review. SecDef retains source veto/disapproval of a Service proposed action and program plans which shall include Full-Scale Development and Production, the program plan for Test and Evaluation, Support and Readiness, and the total acquisition strategy.

The production program review is delegated to the Service Secretary if there are no major changes to the program approved at the second decision point by the SecDef.

- Pro: - The administrative burden is reduced by fewer OSD level reviews.
- The review levels are linked more closely to major expenditure increases.
- Program commitment is delayed until program technical, performance and cost factors are more accurately determined.
- Provides more efficient transition between development and production.
- Con: - Same Cons as above; in addition the divergence from A-109 language is more acute.
- No separate SecDef production decision required.

Alternative Four (Page D-24) eliminates all SecDef decision milestones and delegates total program review responsibility to the Service Secretaries. The DSARC could be invoked at SecDef discretion but generally the SecDef would exercise control and decision authority on a by-exception veto/disapproval basis. Milestone Zero would be conducted through the PPBS process as described earlier.

- Pro: - This alternative goes the furthest toward decentralization and reduction in administrative burden.
- Con: - SecDef direct control of major acquisitions is substantially reduced. Perceived violation of the intent of A-109 as regards agency head responsibility.

Action: USDRE revise DoD Directives 5000.1/2 appropriate to alternative selected.

Decision:

Current: (Four SecDef Milestone Decisions)

Alternative 1: (Three SecDef Milestone Decisions)

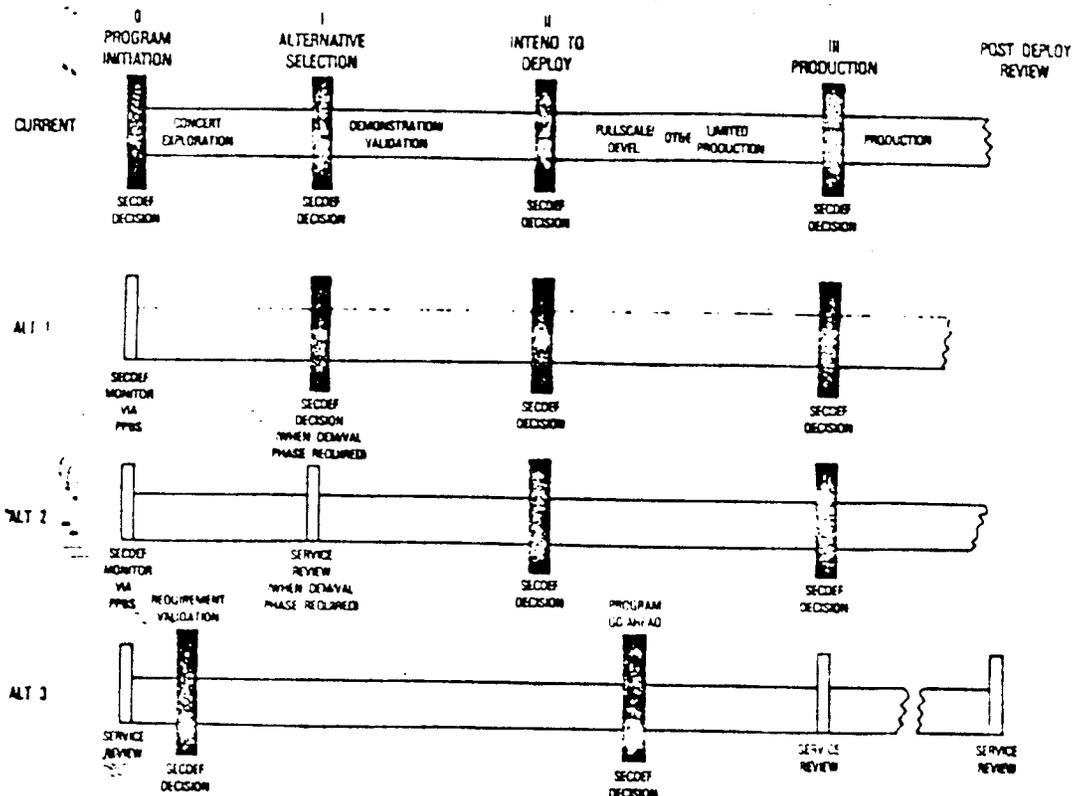
Alternative 2: (Two SecDef Milestone Decisions)

Alternative 3: (Two SecDef Milestone Decisions)

Alternative 4: (Zero SecDef Milestone Decisions)

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## ACQUISITION PROCESS ALTERNATIVES





C. Issue: SHOULD DSARC MEMBERSHIP BE REVISED?

Problem: Service Secretaries have statutory responsibility for the execution of contractual and financial responsibilities for their departments, yet they are not voting members of the DSARC. Service Chiefs also have no vote although they will be responsible for developing and operating the systems under consideration.

Alternative One would maintain current membership. (USDRE, Chairman; USDP; ASD(C); ASD(MRA&L); ASD(PA&E); Chairman, JCS; plus others in special cases).

- Pro: - Retains DSARC as a SecDef staff advisory council.
- Con: - Could place the DSARC in a position of recommending a position that is contradictory to that of the Service line executive responsible to the SecDef without explicitly reflecting the Service position.

Alternative Two would include the appropriate Service Secretary or Service Chief as full members of DSARC.

- Pro: - Provide SecDef with a broader advisory council.  
- Reduces adversary nature of current procedure.
- Con: - Reduce the independence of the DSARC as OSD advisor to SecDef.  
- Increases the size of the DSARC.

Action Required: USDRE revision of DoD Instruction 5000.2 required.

Decision:

Alternative 1	<input type="checkbox"/>
Alternative 2	<input checked="" type="checkbox"/>
I Need More Information	<input type="checkbox"/>

D. Issue: WHO SHOULD BE THE DEFENSE ACQUISITION EXECUTIVE (DAE)?

Problem: Current policy requires that a DAE be designated by the SecDef to be the principal advisor and staff assistant for the acquisition of defense systems and equipment. The USDRE is designated the DAE. However, the scope of the function encompasses procurement of material to support and sustain the force. There is continuing competition between modernization readiness, maintenance of forces and sustainability. The USDRE has primary staff responsibility for force modernization efforts of DoD.

Alternative One would retain USDRE as the DAE.

- Pro: - The USDRE is clearly the OSD executive with the greatest technical knowledge and systems development expertise.
- Con: - Primary USDRE responsibility is developing weapon systems as opposed to operating, maintaining, or supporting the military force.
  - The effort to rationalize and fund competing programs suffers because USDRE could be an R&D proponent himself.

Alternative Two would designate DepSecDef as DAE.

- Pro: - Improved balance between modernizing and operating the force and a more coherent defense program could result from having DepSecDef chair both the DRB and the DSARC.
- Con: - Increases the level of DepSecDef involvement in the acquisition process. USDRE is the OSD technical and system development expert.

Decision:

Alternative 1 \_\_\_\_\_  
Alternative 2 \_\_\_\_\_  
I Need More Information \_\_\_\_\_

E. Issue: WHAT SHOULD BE THE CRITERION FOR SYSTEMS REVIEWED BY DSARC?

Problem: Currently, there are over 50 major programs designated for DSARC review. Although dollar thresholds (currently \$100M RDT&E or \$500M procurement in FY 1980 \$) are "guidelines," they are generally the rule of thumb used to select major programs. Major program designation is derived by subjective judgment based upon joint Service participation, estimated funding, manpower and support requirements, risk, politics, and other Secretary of Defense interests.

Alternative One would continue present system.

- Pro: - The current system allows flexibility in designation, and does not force uncontentious programs to become major strictly because of large investment.
- Con: - The largely subjective criteria causes uncertainty, and may be susceptible to an arbitrary designation.

Alternative Two increases dollar guidelines for major system designation to \$200M RDT&E and \$1B procurement in FY 80 \$.

- Pro: - The number of Service DSARCs and DSARC would be reduced approximately 25% while still insuring review of the most expensive major systems.
  - Uncertainty and the opportunity for arbitrary, unnecessary designation are reduced.
- Con: - Reduces number of major systems of significant investment not reviewed at Secretary of Defense level.

Action Required: USDRE revise DoD Directive 5000.1/DoD Instruction 5000.2 if Alternative Two is adopted.

Decision:

Alternative 1 \_\_\_\_\_  
Alternative 2 \_\_\_\_\_  
I Need More Information \_\_\_\_\_

F. Issue: HOW SHOULD THE DSARC/PPBS DECISION BE INTEGRATED?

Problem: It has been the perception that a DSARC endorsement and subsequent SecDef approval commits the SecDef/Service to fund the program as approved. This has led to confusion as to program status and stability. The DSARC process reviews single programs at significant milestones to determine readiness to proceed to the next phase. It is not feasible in that context to assess the financing of a major program vis a vis other Defense requirements. In contrast, the PPBS addresses all programs within a resource allocation framework without an in-depth review of technical issues and program structure. This "disconnect," the lack of explicit resource commitment (including support and manpower) resulting from a successful DSARC review and subsequent SecDef approval, is frequently cited as a flaw in the acquisition process.

Alternative One continues present practice.

- Pro: - Allows funding decisions during POM/budget development.
- Con: - Fosters program instabilities when DSARC program is not supported in PPBS cycle.
  - May void contract with industry.

Alternative Two resolves the interface problems by providing that programs reviewed by the DSARC will be accompanied by assurance that sufficient agreed to resources are in the FYDP and EPA or can be programmed to execute the program as recommended. DSARC review would certify the program ready to proceed to the next acquisition stage. Affordability in the aggregate would be a function of the PPBS process.

- Pro: - This would lead to DSARC endorsement of fiscally executable programs and fosters program stability through resource commitment.
- Con: - Funding constraints may be set without regard to technical issues.

Alternative Three has the DRB assume the functions of the DSARC. This also makes DepSecDef the Acquisition Executive.

- Pro: - Decisions made by single body; no need to revisit in another forum.
  - Forges a closer linkage between the acquisition process and the PPBS.
- Con: - Current DRP membership not optimal for technical program reviews.

Action Required: Alternative 2--DAE enforce current DoD Directive 5000.1 affordability policy and USDRE revise 5000.1 to strengthen policy and eliminate confusion.

Alternative 3--USDRE revise DoD Directive 5000.1/DoD Instruction 5000.2 to reflect changes in role and membership of DRB.

Decision:

Alternative 1	_____
Alternative 2	_____ <i>ze</i>
Alternative 3	_____
I Need More Information	_____

G. Issue: PROGRAM MANAGER CONTROL OVER LOGISTICS AND SUPPORT RESOURCES

Problem: Three programming and budgeting problems are disincentives for program managers to provide system support and readiness.

1. Support program and budget requirements are based on experience related measures (unrelated to readiness) instead of a system's support requirements and readiness factors.
2. Budget review by appropriation categories. The fielding of a weapons system involves several appropriations: R&D, procurement, military construction, operation and maintenance and military personnel. Normally budget decisions in these accounts occur without visibility of the impact on individual system's support or readiness.
3. Budget execution. Some weapon support funds (spares, training, depot) are controlled by Service activities not responsible to the program manager. Sometimes priorities do not match the program manager's and funds are diverted to fund other requirements.

The Program Manager may not know of or participate in PPBS decisions which impact on his system's support. Once decisions are made on his system's support, they may be altered by another activity during budget execution. This is particularly critical early in FSED as well as during the transition to production when large initial support resources are spent. At any given time, there would be an estimated 15-20 weapons total involved in transition. Procurement of spares with contracts separate from the system production contract increases spares costs.

OPTIONS: Alternatives 2 and 3 below would apply to selected weapon systems, those nearing production or in early production (15-20 systems). A two year trial is recommended for the selected alternative.

Alternative One would continue present management system (use traditional/experience related measures to review system support program and budget requirements; review budget by appropriation categories.

- Pro: - No cost of change.
- Con: - Disincentives for program manager to provide system support readiness remain. Budget review and budget execution problems are not addressed.
- Little program manager input to support budget execution.

Alternative Two would have Services submit with the POM support resource requirements and readiness objectives, by weapon system, for systems entering/or in early production. Direct OSD to have a single review of support associated with individual systems.

Pro:

Gives more PPBS visibility of the combined effects of major support decisions on readiness objectives.

Removes PPBS disincentives by reducing independent budget/PPBS decisions without visibility of effect on program as a whole.

Would move in the direction of a more mission oriented budget decision process.

Con:

Some extra work for the reviewers.

Alternative Three is the same as two but would additionally develop procedures to give the PM more control of support resources, funding and execution. Services would develop implementing approaches to deal with the problems identified on this issue. The basic option should give the Program Manager a voice in support resource allocation and budget execution process through increased and centralized resource visibility and coordination by the PM on changes to his plans.

Pro:

Giving the Program Manager a voice (or coordination) in major support resource decisions for his program would improve responsibility.

Con:

A moderate step requires procedural changes and may or may not be effective. More direct control of many resources would unbalance the overall use of logistic resources by the Service.

Action Required: ASD(MRA&L) letter to Services stating objectives to give more incentives to PM. ASD(MRA&L) would work with the Services to define and evaluate implementing options. Initial letter can be prepared within 30 days.

Decision:

Alternative 1 \_\_\_\_\_  
Alternative 2 \_\_\_\_\_  
Alternative 3   X    
I Need More Information \_\_\_\_\_

ii. Issue: IMPROVING RELIABILITY AND SUPPORT FOR SHORTENED ACQUISITION CYCLE

Problem: In response to serious readiness and reliability problems in many of the systems we now operate, there have been increases in Service and OSD efforts to define reliability and support objectives and to demonstrate their accomplishment prior to major production commitment. Recent acquisition policies include this increased emphasis.

The new focus on shortening the development process is potentially in conflict with initiatives to improve reliability and support. Whereas the fastest acquisition approach involves initiating production prior to test of development models, the highest confidence of achieving reliability and other support goals in fielded hardware involves iterative design and testing before high rate production. A balance must be struck on each program. Many of the serious problems in current systems result from not striking the correct balance.

For those systems which are run on a fast track, there are requirements for additional early funding to design in reliability and support characteristics - including the need to pay this price in parallel or competing developments. Additional in-house talent must be brought to bear, and industry incentives need to be applied to avoid previously experienced support problems.

Because of the relative priority of reliability and support efforts compared to performance objectives, and the current shortage of in-house talent to address these problems, specific top management attention, priority and stress on support resources is needed.

Alternative One modifies the current acquisition procedures to require a specific early decision (circa Milestone 1 on many programs), on the approach, additional resources and incentives which will be used to balance the risks in the reliability and support area on each program. The vehicle for decision can be an acquisition strategy prepared by the Program Manager. This should include an option which goes as far as possible in extra efforts (design, parallel testing, contractual) to increase the likelihood of achievement of support objectives on concurrent programs.

- Pro: - Early decision on degree of concurrency sets in motion long lead steps to reduce support risks.
- Results in conscious decision to balance all the objectives in the light of Service and DoD priorities.
- Gets additional early resource needs considered.
- Provides clear support objectives to PM.

- Con: - Will require more up-front funds. Will be viewed by some as addressing support too early.
- Additional responsibility for PM (but the clear decisions may be helpful).

Alternative Two shifts more of the focus to fixing reliability and support problems experienced in fielding the system by subsequent redesign of production hardware and incorporation of fixes. Rely more on interim contractor support while problems are being fixed.

- Pro: - Easier to do.
- Leaves program manager freer to make the trade-offs without Service involvement.
- Con: - Requires more funds to fix later. Historically difficult to get funds for major fixes. Less likelihood of avoiding support problems.
- Congress will criticize the early fielding problems.

Action Required (If Alternative One is selected): USDRE issue guidance adding early assessment of support options to the current procedures. This could be part of a decision on overall acquisition strategy. Additionally request the Services to revise and develop support related planning guidelines.

Decision:

Alternative 1       X        
 Alternative 2             
 I Need More Information