

David D. Acker, Defense Systems Management College

ABSTRACT

This paper presents the salient points from a 650-page report, and some of my comments regarding the effectiveness and efficiency of the defense systems acquisition review process. At the outset, the origin and evolution of the Defense Systems Acquisition Review Council (DSARC) and the Defense Resources Board (DRB) will be reviewed. Then observations and perceptions of the review process will be made based upon an analysis of several defense system programs.

The fundamental question to be answered by the evaluation of the review process was whether experience has shown that DSARC reviews are still the most effective way to ensure a smooth transition of a defense system program from one program phase to the next phase. The experience data base used in answering this question was the result of (1) fact-finding investigations of 16 programs, and (2) interviews with current and prior DOD officials having defense system management knowledge and experience. Conclusions and recommendations are offered based upon the results of the evaluation.

INTRODUCTION

Under a contract to the Defense Systems Management College (DSMC), Information Spectrum, Inc., conducted an evaluation of the effectiveness of the defense systems

acquisition review process. Alvin M. Frager and Eric Taylor led the contractor effort. I served as the DSMC project officer and a member of the team that interviewed participants in Defense Systems Acquisition Review Council (DSARC) activities and past studies.

To begin, it was determined that the basic defense systems acquisition review process has remained relatively stable since its inception in 1969; however, the procedures have undergone a continual maturation. The defense systems acquisition review process involves decentralized management with centralized control of key decisions. Changes in political leadership, incorporation of the results of various studies, and the emergence of new management techniques have contributed to its evolution. The programs selected for this study are shown in Figure 1.

One hundred and sixty defense system acquisition programs have been subjected to the DSARC reviews since its inception. By the end of 1982, the DSARC had conducted a total of 319 milestone and program reviews. See Figure 2.

An abbreviated history of each program was developed, concentrating on the DSARC review activities, and the histories were included in the appendices to the contractor's report. Figure 3 displays the spread of the DSARC reviews over the past 14 years for the programs included in this study. The review periods on each program, which

Figure 1. Programs Selected for Study in the Evaluation of the Defense Systems Acquisition Review Process

PROGRAM	TYPE		
	SINGLE SERVICE	JOINT	MULTINATIONAL
Army			
Blackhawk (UH-60) Helicopter		X	
Bradley Fighting Vehicle System (FVS)	X		
ROLAND Air Defense System			X
Copperhead Cannon-Launched Guided Projectile	X		
Stand-Off Target Acquisition System (SOTAS)	X		
Navy/Marine Corps			
Harrier Attack Aircraft (AV-8B)			X
LAMPS MK III Ship/Air Weapon System	X		
TRIDENT System (submarine, missile)	X		
FFG-7 Guided-Missile Frigate	X		
HARPOON Anti-Ship Missile	X		
Tactical Towed-Array Sonar (TACTAS)	X		
Air Force			
A-10 Attack Aircraft	X		
F-16 Fighter Aircraft			X
Air-Launched Cruise Missile (ALCM)	X		
Ground-Launched Cruise Missile (GLCM)	X		
NAVSTAR Global Positioning System		X	

Figure 2. Number of DSARC Reviews/Year

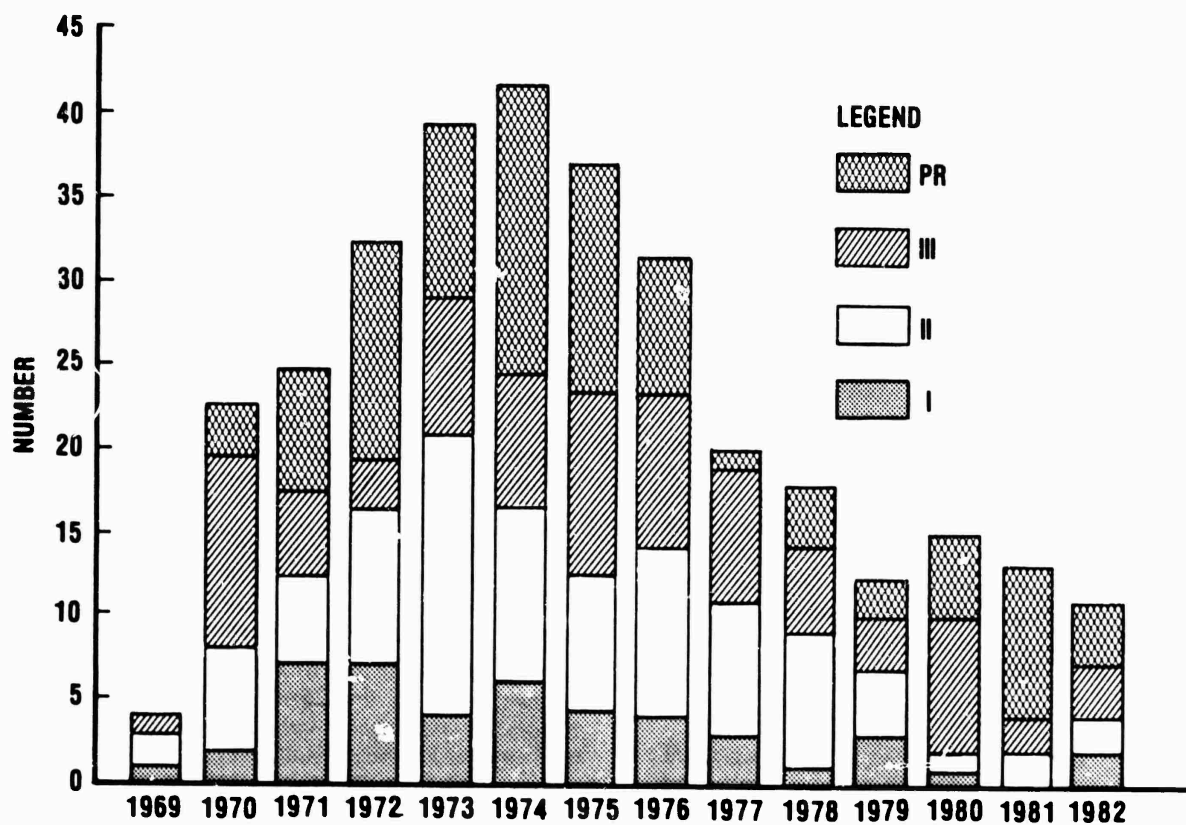


Figure 3. Spread of the DSARC Reviews on Selected Programs

		1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
ARMY	UM 60			I & II			PR		III						
	FVS					PR		II	PR				III		
	ROLAND						II	PR & PR	PR		PR	III			
	COPPERHEAD							PR II		II		III			
	SOTAS										II			PR	
NAVY/MARINE	TRIDENT			I	II & PR	II	III		III						
	FFG				I & II			III							
	HARPOON			I		II	II & PR	PR & II							
	TACTAS					I			II						
	LAMPS MK III				II	II			II		II			PR	III
	AV 80								I			II			
AIR FORCE	A 10	I	PR			II	II	PR & II							
	F 16							II		II & II					
	GLCM									II				PR	
	ALCM					I	II	II	II			II			
	NAVSTAR					I				I		II			

encompassed both the DSARC preparation and decision/implementation time, covered 1-2 years—even more on some programs. Analysis of the programs indicated that certain events, which at first appeared to be program specific, had, in fact, many common characteristics with events on other programs.

ORIGIN AND EVOLUTION OF THE DSARC

In May 1969, then Deputy Secretary of Defense (DepSecDef) David Packard issued a memorandum establishing the DSARC.¹ The DSARC was charged with evaluating major defense system programs at certain points (milestones) in the life cycle and advising him (or the SecDef) of the status and readiness of each program to advance to the next program phase. The memorandum required the establishment of three basic milestone reviews. These reviews were to be held prior to the start of each major phase in a defense system acquisition program "... to permit coordinated evaluation and deliberation among senior managers ... to assure that advice given the Secretary of Defense is as complete and objective as possible prior to a decision to proceed to the next step of a system's life cycle."

Modifications to the review and evaluation process have been made since that memorandum was written. A series of DOD directives and instructions, along with service regulations, has evolved during the past 14 years. Figure 4 provides a chronology of the studies that have been made, as well as the directives and instructions. During this period, the political leadership changed several times, and with the leadership changes, the membership of the DSARC changed. Let's consider how the review process has matured since 1969.

When Packard issued his original memorandum, he emphasized that the primary responsibility for defense systems acquisition and its management on a particular program must rest with the cognizant service and the program manager (PM) it designates. The PM should serve as the focal point within the service. Packard wanted to ensure that each major program progressed through its life cycle according to a plan—an acquisition strategy. To do

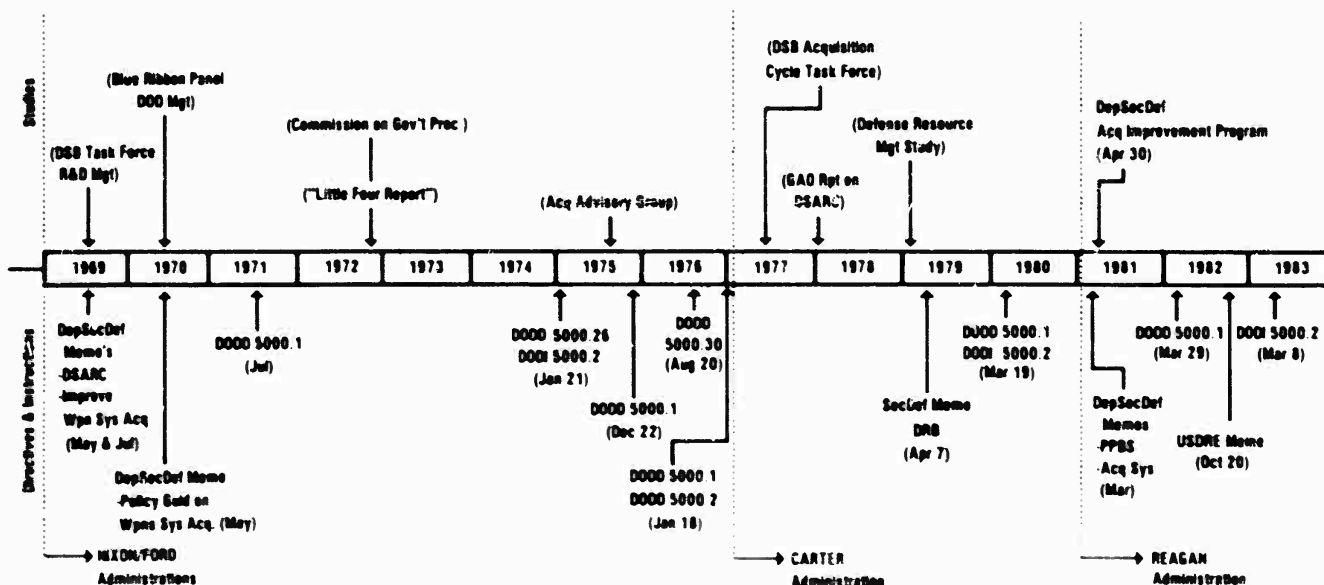
so, he created the DSARC to review major programs at significant milestone points; namely, prior to the start of the contract definition phase (now the demonstration and validation phase), prior to the engineering development phase (now the full-scale development phase), and prior to the production phase. The DSARC was assigned the task of evaluating each program with regard to issues, thresholds, and matters covered in the Development Concept Paper (DCP), a document that had been in existence since 1967. At the outset, the DSARC was chaired by the Director of Defense Research and Engineering (DDR&E),* with the Assistant SecDef (Installations and Logistics), Assistant SecDef (Comptroller), and Assistant SecDef (Systems Analysis) serving as principals. The Council coordinated the milestone reviews, documented the findings, and made its recommendations to the SecDef through the chairman. In addition to the principals, the concerned Component Head was invited to participate in the first DSARC (milestone) review. Component Head participation in later reviews was not required, but the Head could be invited to participate at the discretion of the chairman.

In July 1969, and again in May 1970, Packard issued additional memorandums stating his concern about the defense systems acquisition process. The 1969 memorandum requested help from the services in his search for ways to improve the process.² The 1970 memorandum provided policy guidance for acquiring major defense systems.³ The services were encouraged to tailor their acquisition practices to the peculiarities of each program. This memorandum, which included discussions of such things as management practices, program phases, contract types, and integrated logistics support, became the foundation for DOD Directive 5000.1, issued in July 1971.⁴

In 1975, DOD Instruction 5000.2⁵ was issued to provide the procedure for complying with the policy contained in DOD Directive 5000.1. Also, about the same time, DOD Directive 5000.26 was issued to provide a charter for the DSARC.⁶ The DSARC was described as a forum for open discussion of issues and alternatives on each major program by DOD officials. Two members were added to the DSARC as council principals for programs within their

*Now the Under Secretary of Defense, Research and Engineering (USDRE).

Figure 4. Chronology of Studies, Directives, and Instructions



areas of responsibility: Assistant SecDef for Intelligence (ASD(I)) and the Director of Telecommunications and Command and Control Systems (DTACCS). The DODI 5000.2 expanded Packard's original DSARC concept by adding more functions to its charter. The DCP (now called Decision Coordinating Paper) became the focal point for the DSARC review. The DSARC meeting associated with a specific program milestone complemented the Planning, Programming, Budgeting System (PPBS). The events leading to the DSARC meeting were defined with applicable time limits. Primary administrative responsibility for the DCP was given to the DSARC chairman's staff. Furthermore, the DSARC was given responsibility for review of program objectives memorandums. In December 1975, DODD 5000.1 was reissued, increasing the dollar amounts (based on 1972 dollars) used in defining a defense system as "major."

In August 1976, the Director of Defense Research and Engineering was named the Defense Acquisition Executive, i.e., the principal advisor and staff assistant to the SecDef for acquisition of defense systems and equipment.⁸ As such, he was to chair the DSARC. At that time, the ASD(I) and the DTACCS were made full-time members. The ASD (Systems Analysis) was re-designated Director of Program Analysis and Evaluation (PA&E).

Additional revisions to DODD 5000.1 and DODI 5000.2 became effective on January 18, 1977.^{9, 10} The 5000.2, which became a DOD directive and supplement to DODD 5000.1, provided additional policy and instructions designed to assist the SecDef in making decisions at program milestones. The major change to DODD 5000.1 was the incorporation of the concepts (not already a part of this Directive) contained in Office of Management and Budget (OMB) Circular A-109.¹¹ The OMB circular stressed the importance of considering alternatives at the front-end of a program; accordingly, the revision to DODD 5000.1 added the requirement for a Mission Element Need Statement (MENS) at a new Milestone "0." Other significant changes and additions to DODD 5000.1 included raising the minimum dollar values of "major" new acquisitions, a new emphasis on decentralization, the addition of the service system acquisition review council (SARC) reviews, and some revisions to the DSARC procedures.

The DSARC procedural changes (defined in DODD 5000.2) were as follows:

- DSARC would not participate at Milestone 0.
- DSARC would only be involved at Milestone I if the program under review was classified as strategic, nuclear, joint-service, multinational, intelligence, or command, control and communications.
- DSARC reviews would be held on all major acquisitions at Milestones II and III, unless waived by the SecDef.
- Administration responsibility to process the various versions of the DCP was assigned to the services.

In March 1980, these 5000-series documents were reissued with changes. The DODD 5000.1 contained only minor content changes.¹² For example, the DSARC review was to take place at Milestones I, II, and III, unless waived by the SecDef. Previously, DSARC reviews at Milestone I took place only under the conditions indicated above. Henceforth, SecDef approval at Milestone II was to indicate that deployment of the defense system could be expected. The DODI 5000.2 contained several changes: the dollar thresholds defining major systems were raised

again; the ASD(I) and the DTACCS were removed from DSARC membership and the UnderSecDef (Policy) and the Chairman, Joint Chiefs of Staff (JCS), were added; and the presence of Component Heads was permitted during pre- and post-DSARC review activities, but not in the DSARC review itself.¹³

In 1980, the pre-DSARC review activities changed significantly. Rather than just reviewing the DCP, the DSARC members were tasked with structuring the DCP. Because of this change, the timetable for pre-DSARC activities was fixed at 6 months. In addition to the DCP, an Integrated Program Summary (IPS) was created to provide details of the implementation plan for the life cycle of the system. The combined DCP/IPS became the governing document for DSARC reviews. Further, because the amount of information accumulated for each milestone review was increasing, a Milestone Reference File (MRF) was established. The MRF became a temporary library of all documents relevant to each milestone review of the system.

In March 1982, another revision to DODD 5000.1 was issued.¹⁴ By cover letter, then DepSecDef Frank C. Carlucci directed DOD Components to implement this revision, incorporating appropriate actions from the Department of Defense Acquisition Improvement Program, which he had launched in the Spring of 1981. This revision to the directive emphasized the following with respect to defense systems acquisition reviews:

- Achieving program stability through:
 - Preplanned product improvement versus new state-of-the-art program starts.
 - Realistic program funding at program initiation and projected in the funding documentation.
 - Emphasis on a DOD component-approved acquisition strategy throughout the acquisition process.
- Delegating program responsibility, decision-making, and accountability to the lowest organizational levels (decentralization) Program decisions made by line officials above the PM were to require documentation with appropriate accountability.
- Minimizing the acquisition time, including elimination or combination of program phases (with Secretary of Defense approval).
- Tying the defense systems acquisition review process to resource allocation, or the Planning, Programming, Budgeting System process by addressing program affordability at program initiation and throughout the acquisition cycle. The services were to prioritize their programs and identify resources they were willing to commit during design, development, production, test and evaluation, deployment, and support.

Considerable achievements were made in streamlining the acquisition process. Emphasis was placed on flexibility and tailoring to achieve what "makes sense" for each program. Four decision points and distinct program phases remained. The "Milestone 0" decision for program initiation was replaced with the term, "Mission Need Determination." The SecDef remained the decision-maker for program initiation and Milestones I and II. The production decision was delegated to the appropriate service secretary. On an exception basis, the SecDef could retain his decision authority at Milestone III, if he chose to do so.

According to this policy, the program initiation decision for a new major program will occur during the PPBS proc-

ess. The DOD Component will submit a Justification for Major System New Start (JMSNS), vice the Mission Element Need Statement, no later than that point in time when the service Program Objectives Memorandum (POM) is sent to OSD. Approval and program directions will be included in the SecDef's Program Decision Memorandum (PDM), vice SecDef Decision Memorandum (SDDM). The SDDM will document a joint program decision. A JMSNS will be required for any program (major or non-major) for which the DOD Component estimates the costs (FY 80 dollars) will exceed \$200 million in RDT&E funds, or \$1 billion in procurement (production) funds, or both.

The new Component-prepared abbreviated Milestone I document, the System Concept Paper (SCP) will be used in place of the Decision Coordinating Paper and Integrated Program Summary. These last two documents (in abbreviated formats) will remain as the service's documentation to support Milestones II and III. The PDM will document the SecDef decision and direction. The services will be required to prepare, and submit to the DSARC for approval, Test and Evaluation Master Plans prior to Milestones II and III.

The Milestone II decision point timing will be flexible and it may occur at the traditional point (entry into Full-Scale Development (FSD)), or after entry into FSD if there is a need to more fully define the system being developed. The point of decision will be included in the service's acquisition strategy. If a delayed Milestone II is anticipated, FSD contracts will have to include provisions for early program termination at minimum cost to the government.

In October 1982, Dr. Richard D. DeLauer, the DAE, requested that the draft of a revision to DODI 5000.2 be used by program management offices preparing for a DSARC until formal coordination and promulgation of the revised instruction was completed. In a memorandum to DSARC members and others, he stated there was a general consensus that:

"The sea of paperwork associated with the acquisition process and the briefing burden on the program managers have to be reduced if we are to make the process more efficient than it is. This draft of DODI 5000.2 reflects that philosophy. It is important that the same philosophy be followed in implementation by the DOD Components. This is especially important in view of our past experience which indicates extensive pre-briefs and sequential reviews within the Component in preparation for a DSARC review.

"If our cooperative approach to decision-making is to come to fruition, we ought to be able to do in parallel a good deal of the preparation which we've done in series in the past. This means open lines of communication and shared access to relevant information required as a basis for a decision recommendation to SecDef."

The revision of DODI 5000.2 was issued in March 1983 as an enclosure to a memorandum from the new DepSecDef, W. Paul Thayer.¹⁸ Thayer reminded the defense systems acquisition management community that the basic purpose of the DSARC is to advise the SecDef/DepSecDef at key program milestones whether the program is ready to move into the next phase. He added that the DSARC may review other acquisition issues as determined by the DAE.

The revision to the instruction was intended to describe

more clearly the defense systems acquisition process. One intent of the revision to the instruction was to ensure assembly and documentation of the information that is essential for decision-making. Thayer sees the need for "a continuous dialogue and personal interchange between the Office of the Secretary of Defense (OSD) and DOD Component participants in the acquisition process. Thus, information flow can be tailored to the needs to individual programs and circumstances." The revised instruction makes the milestone planning meeting optional; it may be held any time before the draft documentation is submitted to the DOD Components.

ORIGIN AND EVOLUTION OF THE DEFENSE RESOURCES BOARD

Assertions of inefficiencies in the area of DOD resources management were the basis of a presidential initiative that resulted in the commissioning of a Defense Resources Management Study (DRMS) in November 1977. That study was intended to provide: "searching organizational review into several resources management issues." Among the areas addressed were the resources allocation decision process, the planning, programming and budgeting system, and the defense systems acquisition process.

The DRMS report suggested that a Defense Resources Board (DRB) be established.¹⁹ Accordingly, the DRB was established by the SecDef in April 1979 to enable the DOD to better respond "to signals emanating from Congressional budget reviews and meet Presidential decision requirements."¹⁹ Membership is vested in USDRE, ASD(C), ASD(MRA&L), and Director, PA&E, with the DepSecDef serving as the chairman. Ex-officio membership has been given to the Chairman, Joint Chiefs of Staff. There are six associate members.

The DRB is an advisory body; its actions and recommendations have no authority until specifically approved by the SecDef, or the DepSecDef acting "independently of his role as DRB chairman." The DRB has performed this function, although the method of operation has been highly dependent on the chairman's management style. This style has varied from (a) members voting on alternatives to develop a consensus, to (b) open discussion with the chairman to develop a final recommendation.

The DRB usually does not concern itself with particular programs, but is more concerned with the overall task of effective resource allocation within the DOD. Of course, if a program has major problems, for whatever reason, it could become a subject for DRB action. Final DRB recommendations consider the political sensitivities associated with their implementation. The DRB principals usually attend the meetings and the Chairman (DepSecDef) has not missed any meetings. Although not a member of the DRB, the SecDef has attended some of the DRB meetings.

The original role of the DRB was defined as being one of "supervising the OSD review of service POMs and the budget submission." However, in March 1981, then DepSecDef Carlucci revised the role to helping "the Secretary of Defense manage the entire revised planning, programming, and budgeting process."²⁰ The redirection of the DRB was designed "to assure that major acquisition systems are more closely aligned to the PPBS." The number of major issues to be raised before the DRB were to be limited. Lesser issues were to be resolved outside of the DRB forum, and presented only to the DRB when a

consensus could not be obtained. Carlucci's memo directed that "DRB members must be more than advocates of their particular areas of responsibility; they must take a broader and deeper DOD view...."

Carlucci increased the membership in 1981 to that shown in Figure 5. Clearly, the enhancement of the DRB membership was for the purpose of strengthening the board, particularly with regard to the interactions between the PPBS and the DSARC reviews.

With this as a background, let's consider the issues and perceptions that have influenced the defense systems acquisition review process.

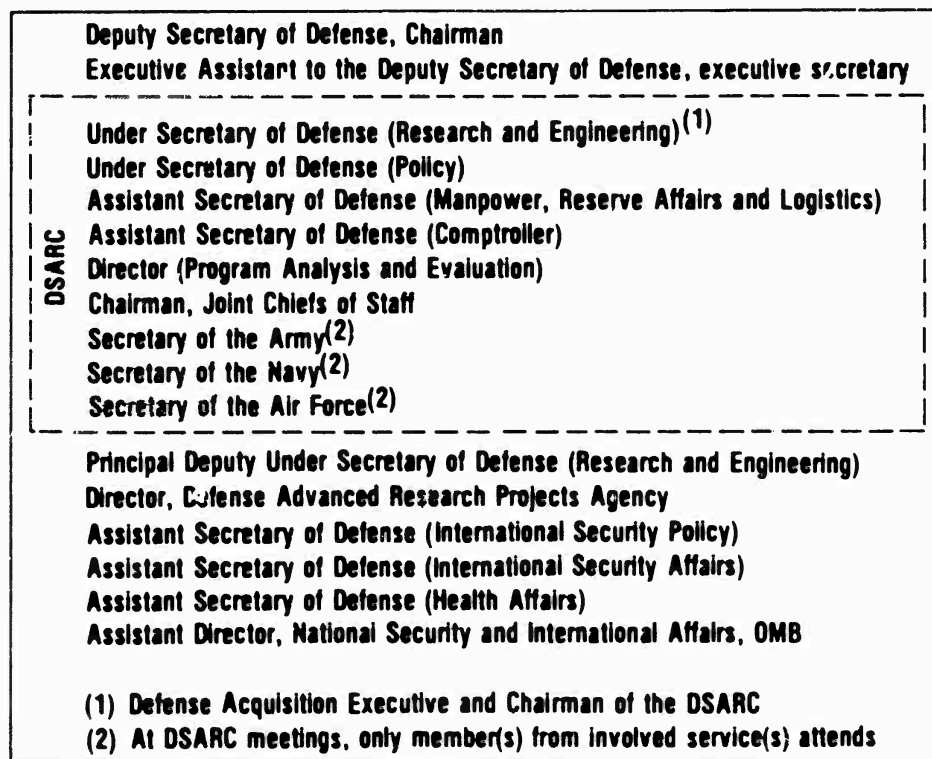
PERCEPTIONS

To obtain insight into the personalities and issues that have influenced the DSARC operation since its inception, interviews were conducted with 13 individuals in the Washington, D.C., area, who have played key roles in the review process (Figure 6). In addition to the interviews, telephonic and written comments were obtained from other persons who had an intimate knowledge of the review process, but who were not available for an interview (Figure 7). The perceptions of these individuals were extremely beneficial in identifying programs for review and issues of general interest. Also, these individuals gave the study team an appreciation of the relevant issues surrounding the process at the time they were personally involved with it. The findings from these interviews and the correspondence aided in structuring the 16 program studies.

A distillation of the principal perceptions of 21 people who were contacted follows. The sequencing of the perceptions is random. No attempt has been made to prioritize them.

- There is a general feeling of acceptance of the defense systems acquisition review process.
- The formation of a DRB was a desirable thing to do and it was a timely action.
- The defense systems acquisition review process provides clear, programmatic milestones that place an element of discipline on program managers.
- The defense systems acquisition review process should not serve as a substitute for other DOD functional activities. For example, the DSARC Principals should not conduct functional oversight responsibility during the review process. The activity should be handled through operations within the OSD.
- The DSARC has not acted like a "Board of Directors," although it has the appearance of such a board.
- DSARC Principals do not always have time to complete their "homework" before a DSARC meeting because of other pressing demands for their time.
- Monitoring his area of concern on more than 35 to 40 major programs is not a manageable workload for any DSARC Principal.
- The DAE management style changes with each new DAE and this impacts the process.
- The SecDef decisions are not taken to be binding budget decisions. For example, staff members who did not "carry the day" during the review process are able to open any aspect of a specific program for discussion during the PPBS cycle.

Figure 5. Defense Resources Board (DRB)



(Note: The permanent members of the Defense Systems Acquisition Review Council are also members of the DRB.)

Figure 6. Executives Interviewed and Their Principal Systems Acquisition Management Experience

EXECUTIVE	PRINCIPAL RELATED EXPERIENCE
James A. Abramson Lt Gen, USAF	Program Director Maverick & F-16; Dep Chief of Staff for Systems, HQ AFSC
Robert Bond Lt Gen, USAF	Commander, Armament Devel & Test Center; Vice Commander, AFSC
Dr. Alexander J. Flax	Asst Secty Air Force; President, IDA; Chairman, Acquisition Advisory Group
John R. Guthrie Gen, USA (Ret)	Deputy Commanding General, AMC; Commanding General, DARCOM
David R. Heebner	Asst Director, Sea Warfare Systems, OSD; Dep Director, Tactical Warfare Systems, DSD
Donald R. Keith Gen, USA	Dir, Weapons Systems Office, DCS/RDA; DCS/RDA, HQ Dept of Army; CG, DARCOM
Isaac Kidd, Jr. Adm, USN (Ret)	Chief of Naval Material
Rob Roy McGregor	OSD/RDA, HQ Dept of Army; Dir, Sys Anal & Review; Exec Director of ASARC
Raymond Moss Col, USAF (Ret)	F-15 Program Element Monitor; Asst for Prog Reviews, Office ASAF; AFSARC Secretariat
Eddie Nucci	DSARC Executive Secretary (1969-1976)
Russell R. Shorey	Director of Acq Planning, DASD(I&L); DSARC Advisor on Support, DASD(MRA&L)
Leonard Sullivan, Jr.	Principal Dep Director, DDR&E; ASD(PA&E)
George Sylvester Lt Gen, USAF	Dep for Systems, Vice Cmdr, and Commander ASD; Vice Commander, AFSC

Figure 7. Executives with Knowledge of Review Process Who Submitted Telephonic or Written Comments

EXECUTIVE	PRINCIPAL RELATED EXPERIENCE
Mr. Norman R. Augustine	Former Assistant Secretary of the Army; current Chairman, Defense Science Board
Dr. Solomon J. Buchsbaum	Former chairman, Defense Science Board
Brig Gen Aloysius G. Casey, USAF	Commander, Ballistic Missile Org; former Asst DCS (Systems), AFSC; original MX Program Manager
Dr. Malcolm R. Currie	Former DSARC Chairman and DDR&E
Mr. Charles A. Fowler	Former member of the Defense Science Board
RADM Rowland G. Freeman III, USN (Ret)	Former Commandant, DSMC
Mr. Robert A. Fuhrman	Member of the Defense Science Board
Dr. William E. Perry	Former DSARC Chairman and DDR&E

- The DOD Component staffs seem to lack a cooperative spirit when the FM is striving to meet program objectives. The staffs appear to have "hidden" agendas.
- Over the years, the DOD Components have sensed tighter control by OSD on major programs.
- DOD must demonstrate responsibility for acquisition management to the Congress. A great deal of DOD action is a reaction to congressional action, or threat of action.
- The changing DSARC procedures with successive administrations have made it difficult to efficiently manage programs that span 7 or more years.
- The SecDef Decision Memorandum, now the SDDM, sometimes contains items not covered in the DSARC review, especially when issuance of the document is delayed.
- A "macro" analysis of the program affordability is missing from many reviews.
- Items that are not expected to receive DSARC approval are not presented for consideration/action.
- There is no common method for effectively closing out a program.

OBSERVATIONS FROM THE SELECTED PROGRAMS

In analyzing the 16 selected programs, emphasis was placed on review of such documents as DCPs, SDDMs, Selected Acquisition Reports (SARs), and other program data relative to the program milestones and reviews. Data gathering was conducted at four levels, namely: OSD staff, service staff, material command, and program management office. Detailed information setting forth specific experience on the selected programs is presented in the appendices to the report prepared for DSMC by Information Spectrum, Inc.²¹

The findings are summarized below. Unfortunately, it is difficult to judge the findings as either positive or negative because criteria to measure effectiveness have never been developed. What might be considered positive to one DAE may not be considered so by another DAE because of differences in management style. Consequently, the findings summarized below are given without judging them to be either positive or negative, although, in some cases, such a judgment may seem to be obvious.

1. Administrative control of the defense system acquisition review process has been inconsistent.
 - There has been a wide variation in the timing of the SecDef decision after the DSARC review. Figure 8 displays the time for 46 decisions made on the 16 selected programs.
 - The method of documenting DSARC recommendations and SecDef decisions has not always been in conformance with published instructions.
 - Preparation and submission of the DCP is not always timely.
2. The DSARC has not ensured that:
 - Program content and technical parameters are adequately defined before program initiation.
 - Program changes are adequately controlled.
3. Monitoring of cost, schedule, and performance threshold compliance has not been consistent from program to program.
4. The greatest impact of the defense system acquisition review process usually occurs during preparation for the reviews rather than at the DSARC reviews.
5. The actions of the OSD staff during preparation for a review appear to be unorchestrated. The milestone planning meeting, in its present form, is not effective in identifying key program issues.
6. The DSARC Principals attend the DSARC reviews be-

Figure 8. DSARC Decision Time on Selected Programs

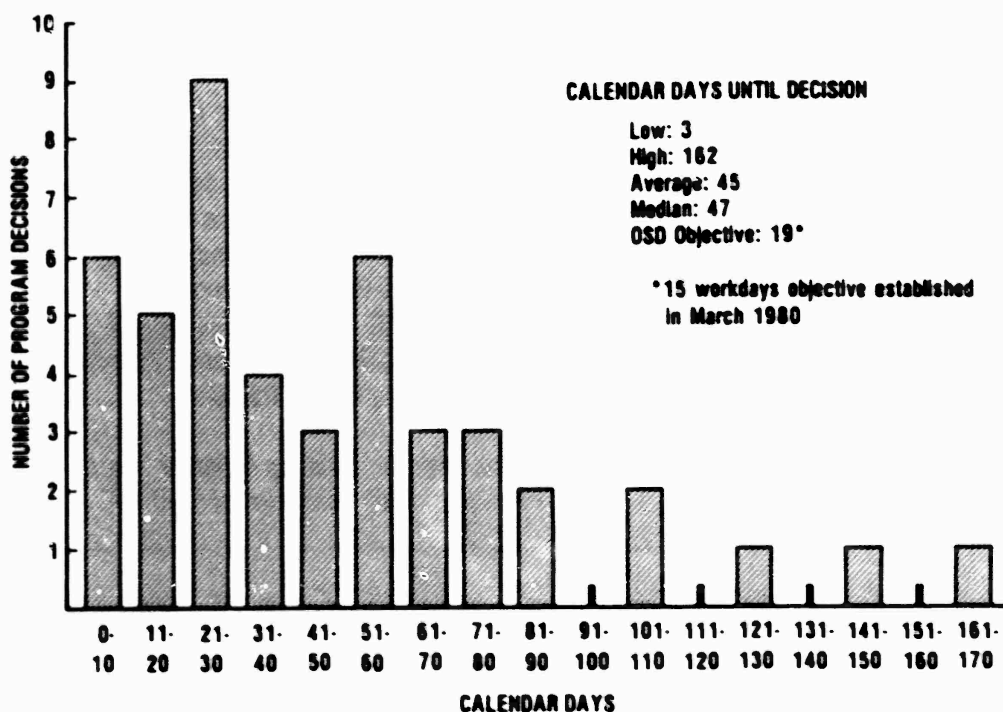


Figure 9. Summary of Attendance by DSARC Principals at Reviews on Selected Programs

DSARC Review	Total Number of Reviews	Number of Reviews Attended by Principals			
		USDR&E	PA&E	C	MRA&L
Milestone I	5	5	2	2	1
Milestone I/II	2	2	1	1	2
Milestone II	11	7	6	4	4
Milestone III	10	6	9	7	4
Program Review	8	6	5	6	5
Total	36	26	23	20	16
Percent	100	72.2	63.9	55.5	44.4

tween 45 percent and 72 percent of the time; however, their functional areas appear to be adequately represented when they are absent (Figure 9). A heavy DSARC workload over a short time span tends to reduce the attendance of the DSARC Principals. Also, reviews held during or just after changes in administration (after an election) increase the absences of DSARC Principals.

7. The program management office workload increases during the period before and after a DSARC review. The large number of pre-briefs is a major factor in the increased workload before a review.

8. External forces (i.e., the Congress, international agreements) can impinge on a program and pre-empt or override the DSARC recommendations made to the SecDef.

9. It is difficult to establish contractual agreements and program schedules that are closely attuned to the DSARC decision-making process. This has been a continuing concern to program managers.

10. Multinational programs and joint programs have encountered procedural difficulties during the defense system acquisition review process.

CONCLUSIONS

The concept of a defense system acquisition review process for major defense systems programs is sound. Although the process has undergone maturation for 14 years, the basic concept has not changed appreciably. The transition of a major program from one program phase to the next is controlled according to instructions based on a clear and adequate OSD policy statement.

The defense systems acquisition review process has fostered decentralized management of the acquisition functions, an underlying philosophy of Packard. Further, the milestone reviews have instilled a sense of discipline into the management of every major defense system program.

The defense system acquisition review process and procedures are effective, but not efficient. The failure of the process to provide early identification of critical issues is a weakness: on many programs, key issues are determined late in the coordination process—sometimes 1 or 2 weeks before a DSARC review.

The conduct of the defense systems acquisition review process on a specific program may not be in conformance with DOD directives/instructions. For example:

- A breach of threshold on one program may not be processed in the same manner as a breach on another program.
- Milestone review actions have not been consistent from one program to another.
- Previous SecDef decisions have been modified without benefit of the DSARC review process, i.e., sometimes the OSD staff has modified or revised the SecDef decisions set forth in the SDDM or PDM without the benefit of a DSARC review.

A major factor in program management office workload, and in the length of preparation time for milestone reviews, is the large number of pre-briefs requested by the services. The need for so many pre-briefs should be questioned by the service secretariats.

The substitution of other members of management for the DSARC Principals at DSARC reviews detracts from Packard's concept of deliberation among senior members of management before a program milestone or major program decision.

There is a need for clearly defined program baselines. The DCP, as originally conceived, was the document that served as a "contract" between the SecDef and the service(s) for the acquisition of a specific defense system. The DCP was updated following each DSARC review. Also, yearly reviews of the "contract" ensured that changes caused by a PPBS action, the Congress, or other activities were docu-

mented in the DCP. The PDM used today has not satisfied this function.

Finally, the functional responsibilities of the DSARC and the DRB are sufficiently different to warrant the continuance of their organizational separation. The DSARC looks vertically at each program to ensure it is performing within the fiscal constraints of the Five Year Defense Plan, whereas the DRB looks across programs.

RECOMMENDATIONS

The recommendations set forth here are based on the precept that the preparation time for DSARC reviews can be reduced and less burden placed on the program manager if the following actions take place:

- There is senior management commitment to the process.
- The strategic planning for each program is focused.
- All participants in the program planning and review process have a moderate degree of currency with specific details of the program under consideration.

Specifically, the following actions are recommended:

1. Continue the defense system acquisition review process as currently designed.
2. Improve the efficiency of the process by implementing the following procedures:
 - Provide short, routine status reports on designated programs to the SecDef/DepSecDef, DAE, and other selected senior OSD staff officials.
 - Have the DAE exercise administrative control over, and focus on, the DSARC preparation activities of the OSD staff.
 - Have the DAE issue a policy statement on attendance of DSARC Principals.
 - Have the SDDM serve as a "contract" between the SecDef and the Service Secretary during the acquisition of a major defense system.

It is clear that better decisions have been made on defense systems programs because the people who have knowledge and expertise of each program have contributed recommendations along the pathway to each decision. However, it is acknowledged that conflicts as to approach have occurred at times because of the diverse interests of the members of the reviewing body—the DSARC. Normally, the DSARC chairman has ensured that each recommendation submitted to the SecDef has been a product of the deliberations of the DSARC members. In the end, the SecDef has made the major program decisions. After such decisions have been made, everyone concerned with the program has been expected to abide by them. This has to be judged as an effective process.

Copies of the report prepared by Information Spectrum, Inc., for the Defense Systems Management College are available from the Defense Technical Information Center (DTIC) under accession number ADA 129795 for Volume I, ADA 129796 for Volume II, Part 1, and ADA 129797 for Volume II, Part 2.

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