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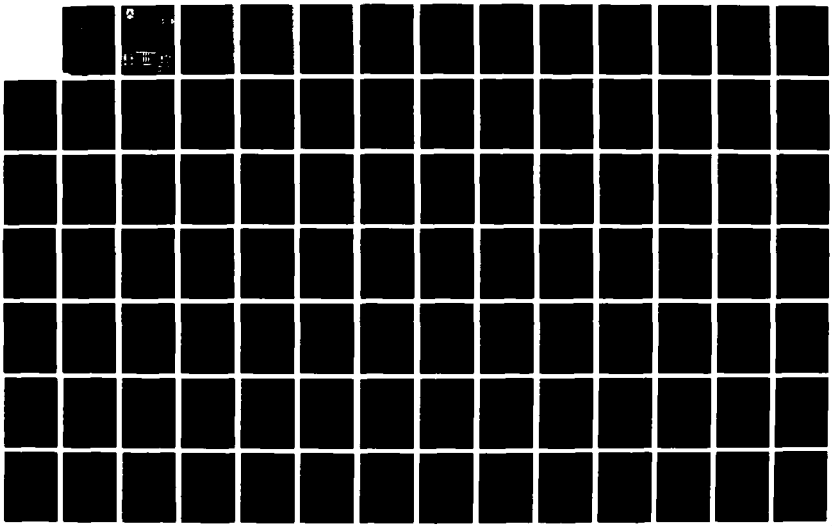

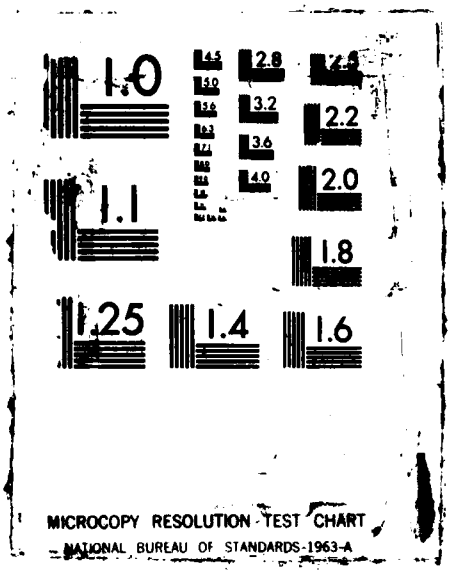
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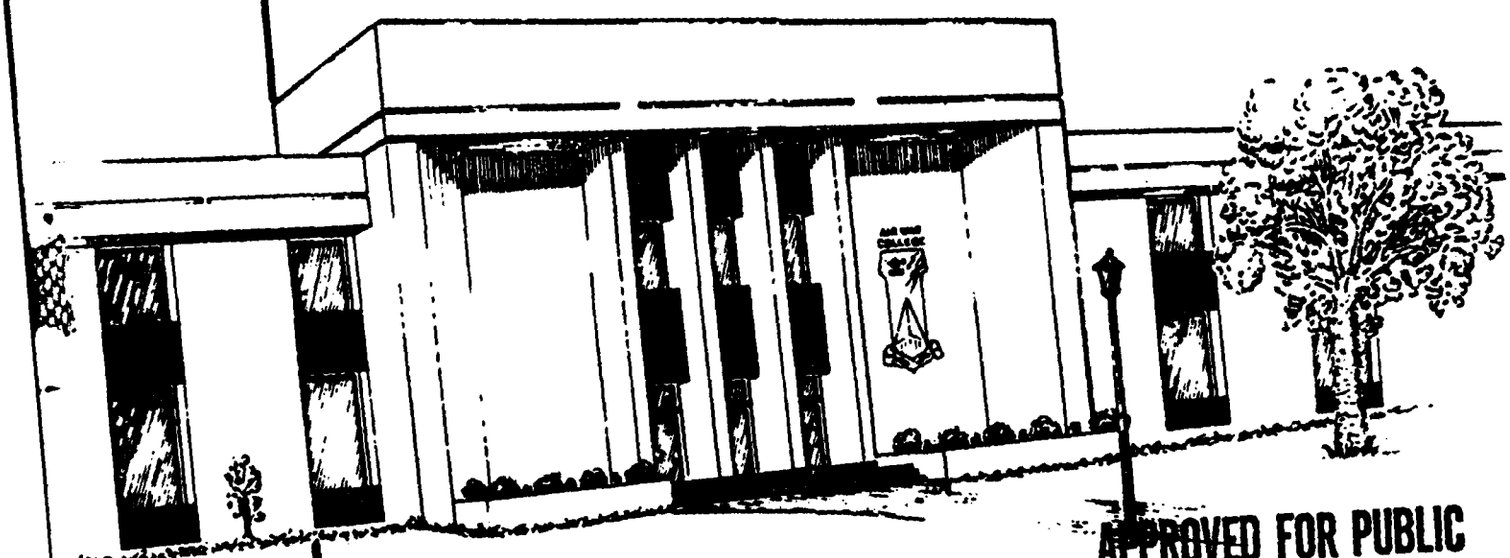
THE IMPACT OF THE PACKARD COMMISSION REPORT WITHIN USAF AND DOD

By COLONEL WILLIAM D. SMITH, LIEUTENANT COLONEL BRIAN L. KESSLER, LIEUTENANT COLONEL FRED T. McGREGOR, LIEUTENANT COLONEL DENNIS F. MARKISELLO, LIEUTENANT COLONEL EVERETT G. ODGERS, AND LIEUTENANT COLONEL CHARLES M. SWAGER



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UNITED STATES AIR FORCE
MAXWELL AIR FORCE BASE, ALABAMA

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THE IMPACT OF THE PACKARD COMMISSION REPORT WITHIN USAF AND DOD

by

William D. Smith, Colonel, USAF; Brian L. Kessler, Lieutenant Colonel, USAF; Fred T. McGregor, Lieutenant Colonel, USAF; Dennis F. Markisello, Lieutenant Colonel, USAF; Everett G. Odgers, Lieutenant Colonel, USAF; and Charles M. Swager, Lieutenant Colonel, USAF.

AN AIR FORCE SPECIAL INTEREST STUDY SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE RESEARCH

REQUIREMENT

Faculty Advisor: Colonel James C. Poole, Jr.

MAXWELL AIR FORCE BASE, ALABAMA

May 1987

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TABLE OF CONTENTS

CHAPTER		PAGE
	DISCLAIMER-ABSTAINER	ii
	EXECUTIVE SUMMARY	iii
	BIOGRAPHICAL SKETCH	xiii
I	THE PACKARD COMMISSION REPORT AND CONGRESS, LT COL DENNIS F. MARKISELLO	1-1
II	THE PACKARD COMMISSION REPORT AND ITS IMPACT ON THE AIR STAFF AND AIR FORCE SECRETARIAT, LT COL FRED T. MCGREGOR	2-1
III	THE PACKARD COMMISSION REPORT AND ITS INFLUENCE ON FINANCIAL MANAGEMENT, LT COL EVERETT G. ODGERS	3-1
IV	THE PACKARD COMMISSION AND THE SYSTEM PROGRAM OFFICE, COL WILLIAM D. SMITH	4-1
V	DEFENSE ACQUISITION IN A.D. 2007--A PRESCRIPTIVE HISTORY (BEYOND THE PACKARD COMMISSION REPORT), LT COL BRIAN L. KESSLER, LT COL CHARLES M. SWAGER	5-1

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EXECUTIVE SUMMARY

Over the past two years, there have been sweeping changes initiated in defense acquisition. One of the key forces for acquisition change has been the President's Blue Ribbon Commission on Defense Management--often called the Packard Commission, after its chairman, Mr. David Packard. Many of the Commission's recommendations submitted to the President in early to mid-1986 were aimed directly at improving the defense acquisition system--from top to bottom.

The Congress has passed significant legislation that addresses perceived problems in the management of defense, including problems addressed by the Packard Commission. Both the Goldwater-Nichols Department of Defense Reorganization Act of 1986 and the Defense Acquisition Improvement Act of 1986 prescribe major changes in how the Department of Defense (DoD) will organize and manage defense acquisition in the future.

This monograph provides an independent view of the Packard Commission recommendations, the related congressional legislation, and how the DoD should and will implement both the recommended and directed changes. It is intended to be a useful tool in understanding what has happened, what may happen in the future, and what impact these changes may have on various levels within the defense acquisition system. In addition, the authors hope to provide meaningful food for thought on future changes.

There are two key points to keep in mind as one reads the monograph. First, the papers in the monograph have been written while the defense acquisition system is considering and digesting the many changes. Second, the authors have taken an independent look at the changes from an academic "safe-haven" using several different perspectives based on the authors' experience and interests. A brief abstract of each article follows.

The Packard Commission Report and Congress

In the first article, Lieutenant Colonel Dennis Markisello offers a legislative strategy for the DoD and the Air Force to follow in implementing the recommendations of the Packard Commission. He contends that the Congress will continue to have the major important impact on the defense acquisition reform process. Whether this impact will be in consonance with DoD goals and objectives may well depend on how credibly the DoD follows through in implementing both congressional direction and the recommendations of the Packard Commission. Establishing DoD credibility in regard to acquisition reform will be a critical factor in the DoD's future relationship with the Congress.

Colonel Markisello points out three categories of congressional action where different DoD approaches are required. First, there is legislation in direct support of (or

beyond) the Packard Commission recommendations. Here the DoD must be careful to comply with not only the letter but also the intent of the law. Second, there is legislation inferring future action by the Congress. This legislation requires submission of certain reports or studies to the Congress concerning potential implementation of additional reforms. Here the DoD must put its best foot forward and provide thorough justification for why additional reforms are or are not needed. Third, there are Packard Commission recommendations about which the Congress was silent. It will take decisive DoD initiative to influence congressional action and DoD should press for legislation where appropriate.

Based on numerous interviews with congressional staff members, Colonel Markisello concludes that Congress believes it has done enough in acquisition reform for now and is in a "sit-back-and-wait" mode. Thus far, Congress has been quite supportive of the Packard Commission initiative. To encourage future support, the DoD must enhance its credibility through a conscientious effort to effectively implement the reform recommendations and legislation, complying with both the letter and intent of the law.

The Packard Commission Report and Its Impact on the Air Staff and Air Force Secretariat

In the second article Lieutenant Colonel Fred McGregor evaluates what more could be done to improve acquisition management in the Air Force from an Air Staff and Air Force Secretariat level perspective.

While significant progress has been made in implementing Packard Commission recommendations, Colonel McGregor's assessment is that there are still significant shortfalls. He highlights four key areas in this respect.

1. The Air Staff and Secretariat organizational consolidations may not satisfy the Commission's intent to streamline the reporting process for individual program managers. As long as Congress drives much of the oversight activities conducted at the Secretariat and Air Staff levels, such activities will probably continue. With directed manpower reductions at the headquarters, it is possible that the Air Staff will require more--not less--information from the program offices and in a more "final package" form.

2. The streamlined reporting route recommended by the Commission--program manager to Program Executive Officer to the Service Acquisition Executive to the Defense Acquisition Executive--is not likely to be implemented fully. Full implementation of such a concept would ignore significant layers in the military chain of command and, more importantly,

would deny the program manager the benefit of counsel from some very knowledgeable Air Force acquisition and operation's experts.

3. While headquarters manpower cuts may be a first step toward meaningful reductions in the additional layers of bureaucracy added in the past to "fix problems," the DoD and the Department of the Air Force decision-makers must be careful when cutting manpower slots to preclude imprudent reductions.

4. Congress has not committed to make all of the recommended changes to the budget process. Their failure to commit fully to biennial authorizations and appropriations, to widespread multi-year funding and milestone authorizations, and to an operational budget orientation/structure (versus line item) portends continuing constraints in the budgeting process and resulting program instability.

Colonel McGregor contends that the acquisition process starts with Congress and cannot improve substantially without congressional cooperation. Congress should focus budget activity at the macro level of national strategy and interests and should not get involved in the minutia of program acquisition. As long as Congress insists on delving into the details of the acquisition process, the DoD will need larger staffs to generate, package, and deliver data to satisfy those needs.

Congress should seek to create an enviroment that frees DoD acquisition managers to do the job they are trained to do

while culling out the few incompetent or unethical individuals as special cases rather than the norm. The current approach to reform, which appears more aimed at "pointing fingers" and creating notoriety for the critics, may inhibit acquisition people from taking the risks required to keep the US at the forefront of defense technology.

In conclusion, Colonel McGregor indicates that those interested in improving the defense acquisition system must strive to restore a sense of trust among all levels involved in the defense acquisition system--a major thrust of the Packard Commission. Much work still remains.

The Packard Commission and its Influence on Financial Management

In the third article, Lieutenant Colonel Everett Odgers analyzes and assesses the impact of the Packard Commission recommendations on financial management focusing specifically on the issue of program stability. He points out that the preponderance of the Commission's recommendations that were aimed at improving financial management in the defense acquisition process were modeled after similar conclusions advanced by other reviewers and study groups who had reviewed defense acquisition management in recent years.

From Colonel Odgers' perspective, the Commission's recommendations for improving financial management in this critical area produced three positive results: (1) it

highlighted ongoing acquisition improvement initiatives within the DoD; (2) the DoD began to implement changes legislated in the Goldwater-Nichols Defense Reorganization Act of 1986; and (3) it identified congressional legislation required to change existing policies and procedures. The Commission's recommendations were designed to enhance program stability and to decrease acquisition cost growth.

In his paper Colonel Odgers discusses the Commission's recommendations for five year strategic plans, baselining, multi-year procurement, congressional authorization of major acquisition programs at key milestones, and biennial budgeting. He discusses each concept to assess how each recommended approach effects program stability. He also outlines two other concepts recommended by other groups to stabilize programs--cost capping and capital budgeting. Although not advocated by the Packard Commission, Colonel Odgers contends that these latter two concepts have high potential to improve overall program stability.

The Impact of the Packard Commission on the System Program Office

The fourth article, by Colonel William Smith, discusses the impact of the Packard Commission on the system program office (SPO). He points out that the impact of actions taken recently will vary depending on the type SPO modeled.

Colonel Smith examines three main thrusts of the Packard Commission. He contends that the first two thrusts--clear command channels and designation of the Program Executive Officer (PEO)--have resulted in little streamlining of the acquisition process in spite of organizational changes. In many cases, he states that it is more probable that the workload within the SPO will increase as the program manager attempts to satisfy two reporting chains: the traditional military chain of command and the newly established acquisition reporting chain recommended by the Packard Commission and established by the Administration.

The third thrust discussed in the article concerns a redefinition of the requirements process. Here, Colonel Smith believes that the newly designed Air Force requirements definition process could, if properly executed, significantly help reduce acquisition leadtimes. This new system recognizes that systems tend to be ill-defined at the onset and, as such, need to be nurtured by the users and developers before the Air Staff gets heavily involved. By following a modified requirements definition track, the end product has more potential to meet the real needs of the Air Force user at both a lower cost and with a shorter development time.

Colonel Smith concludes that the efforts of the Packard Commission and the effects of the Goldwater-Nichols Bill have been diminished because of structural constraint problems and inertia within the Air Force. However, that may not be all

bad. It appears that the Air Force has benefited by implementation of that which was useful and has worked around those portions of the Packard Commission Report that are too difficult or impractical to implement.

Defense Acquisition in the Year 2007--
A Prescriptive History

In the final article, Lieutenant Colonels Brian Kessler and Michael Swager first examine chronic problems and adverse trends experienced by the DoD in the acquisition of weapon systems during the 20-year period from 1967 to 1987. They then project themselves 20-years into the future and describe the world scenario and U.S. military strategy as they envision them. Using the Packard Commission report the Goldwater-Nichols DoD Reorganization Act of 1986 as a point of departure, they discuss the evolution of the DoD weapon system acquisition process and the factors that shaped it from 1987 to 2007. To do this they employ a long-term planning approach advocated by the late Herman Kahn--a prescriptive history from the vantage point of the year 2007.

Illustrative of the authors' proposals are the formation of two new organizations to resolve two major problems that were identified by the Packard Commission. Those problems are: the need for increased use of joint-service systems acquisition for economy and efficiency, and the need

for a more cooperative relationship between the DoD and the Congress. The former problem is addressed by the Joint Weapons Acquisition Agency (JWAA) and the latter problem by the Congressional Office for Oversight of DoD Acquisition (COODA). The JWAA will develop, test, and procure all DoD weapon systems. The COODA will be responsible for oversight of the acquisition of all DoD weapon systems. It will relieve the congressional staffs from the burdensome technical analysis and micromanagement of DoD acquisition programs and will place a dedicated, highly skilled staff of acquisition professionals at the fingertips of all the members of Congress. In concept, the COODA will be a non-partisian "watchdog" of the Congress, similar to the GAO. Together, the JWAA and the COODA will create a DoD-congressional partnership that improves the acquisition system and thereby restores public confidence in the DoD weapon systems acquisition process.

The authors describe a reformed acquisition process--one that is more responsive to meeting the dynamic military threat, that produces more cost-effective weapon systems, and that delivers new weapon systems in a shorter period of time. They postulate an acquisition process that restores public confidence in the DoD's management of public funds and enhances military readiness.

BIOGRAPHICAL SKETCH

This monograph is the compilation of five articles written by six authors as noted in the table of contents.

Each article contains its own biographical sketch. No consolidated biographical sketch will be presented.

THE PACKARD COMMISSION REPORT AND CONGRESS

BY

Dennis F. Markisello
Lieutenant Colonel, USAF

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BIOGRAPHICAL SKETCH

Lieutenant Colonel Dennis F. Markisello has been involved in weapon system acquisition since 1972. After initial assignments in Minuteman Missile Maintenance and BOMARC Missile Operations, he attended the Air Force Institute of Technology for a Masters Degree in Systems Management to complement his Bachelor of Engineering Degree. Lieutenant Colonel Markisello served as a program manager for jet engine programs and the GBU-15 Glide Bomb, as a manager for Division management information systems and the Deputy Director for Corporate Planning at the Armament Division, as an Air Staff Training (ASTRA) Officer in HQ USAF/RD, and as the Program Element Manager (PEM) of Propulsion Systems and the Advanced Medium Range Air-to-Air Missile (AMRAAM). Lieutenant Colonel Markisello is a graduate of the Squadron Officers School, the Air Command and Staff College, the Armed Forces Staff College, and the Air War College, class of 1987.

TABLE OF CONTENTS

CHAPTER		PAGE
	DISCLAIMER-ABSTAINER	1-2
	BIOGRAPHICAL SKETCH	1-3
I	INTRODUCTION	1-5
	Purpose	1-5
	Background	1-5
	Methodology	1-7
II	CLEAR COMMAND CHANNELS	1-9
	JCS Reorganization	1-9
	Defense, Service Acquisition Executives, and Program Executive Officers	1-10
	Joint Requirements and Management Board	1-14
III	PROGRAM STABILITY	1-16
	Baselining, Multiyear Procurement, Milestone Authorization	1-16
	Biennial Budgeting, Five Year Defense Plan, Line Item Budget Review	1-19
	Gramm-Rudman-Hollings Bill	1-22
	Congressional Committee Relationships/ Conflicts	1-23
IV	LIMITED REPORTING REQUIREMENTS	1-26
V	SMALL, HIGH QUALITY STAFFS	1-28
	Streamline Acquisition Organization and Procedures	1-28
	Reduce Number of Acquisition Personnel	1-30
	Enhance Quality of Acquisition Personnel	1-32
VI	PROTOTYPING AND TESTING	1-35
VII	OTHER RECOMMENDATIONS	1-37
	Expand Use of Commercial Products	1-37
	Increase Use of Competition	1-38
VIII	SUMMARY AND CONCLUSIONS	1-41
	Legislation in Direct Support	1-41
	Legislation Inferring Future Action	1-43
	No Congressional Action	1-45
	General Conclusion	1-48
	LIST OF REFERENCES	1-51

CHAPTER I

INTRODUCTION

The President has directed the Department of Defense (DoD) to implement many of the recommendations of the President's Blue Ribbon Commission on Defense Management (the Packard Commission). However, if the acquisition reform objectives are to be fully realized, Congress must play an essential role in the process. The actions they have already directed by law and their intent for future actions are very important to the ultimate outcome of the reform. The DoD must be aware of congressional intent so it can chart its course in defense acquisition reform and try to influence Congress' reform actions.

Purpose

The purpose of this paper is to develop a strategy for the DoD and Air Force (AF) to follow in implementing the Packard Commission acquisition related reforms. This strategy must improve defense acquisition management while winning congressional support of these actions. Finally, the strategy must attempt to influence Congress to implement those reform actions requested of them by the President.

Background

On April 24, 1986, President Reagan sent a special message to the Congress outlining proposals to improve the

defense establishment based on the preliminary results of the Packard Commission Report. One area of focus was the "essential legislative steps that the Congress must take for these improvements to be fully implemented." (2:43) The President further emphasized the importance of Congress' role in the following statements:

> To establish the stability essential for the successful and efficient management of our defense program, the Congress must be more firmly committed to its constitutional obligations to raise and support the armed forces. (2:50)

> Only meaningful congressional reform can complete our efforts to strengthen the defense establishment and develop a rational and stable budget process--a process that provides effectively and efficiently for America's security over the long haul. (2:50)

David Packard, in his June 1986 final report, A Quest for Excellence, further emphasizes the importance of Congress' role in improving the defense establishment. In reference to Executive Branch actions for more rational and stable defense planning and budgeting, he states:

> But this effort will fail to achieve the desired results if Congress does not do its part to improve its role in the process. Realism in long-range planning and budgeting for defense within the Executive Branch must be met by a responsible exercise of congressional power in budget review and oversight. (3:21)

He goes further in his discussion of improving the Defense Acquisition System as follows:

> A responsible prescription for change must address the actions of everyone who--for better or worse--can influence these programs, from defense contractors and program managers to OSD officials and Members of Congress. (3:43)

A final endorsement for congressional action in defense reform came from a 1985 Senate Armed Services

Committee Staff Report titled Defense Organization: The Need For Change and subsequent review by distinguished military and civilian experts. The report states that:

> The experts concurred with the part of the staff study that noted the key role of the Congress in perpetuating flaws in defense oversight and the need for change in Congress in order to implement effective reform in the Department of Defense. (6:645)

These remarks emphasize the need for congressional action in the defense reform process from the points of view of the Executive Branch, the Packard Commission, and from within the Congress itself. Therefore, the DoD and AF must formulate implementation plans that logically and morally compel Congress to cooperate with DoD and AF actions as well as implement the necessary changes in Congress.

Methodology

This paper will examine each of the key acquisition related Packard Commission recommendations, compare them to what the President asked Congress to do in his special message to them, and show what Congress enacted into law as a result. The paper will then analyze the impact of Congress' action (or inaction), analyze their intent for future action, and suggest a strategy for the DoD and AF tailored to the mood of Congress in each case.

In order to analyze congressional intent, the primary sources of information used were the laws and accompanying reports (especially the explanatory statements included) and interviews with key congressional staff

members. These sources were supplemented by additional interviews with legislative liason personnel and AF acquisition reform experts, open literature, and government documents.

The paper will follow the Commission's acquisition model for successful commercial program management: clear command channels; program stability; limited reporting requirements; small, high quality staffs; communications with users; and, prototyping and testing. (3:49-51)

CHAPTER II

CLEAR COMMAND CHANNELS

The Packard Commission stated that clear command channels result in the program manager having responsibility for his program with a short, unambiguous chain of command to the top decision maker. (3:50) Establishing this chain and the necessary relationships to make it work will be discussed first.

JCS Reorganization

The Packard Commission Report recommended establishing the position of the Vice Chairman of the Joint Chiefs of Staff (JCS) to assist the Chairman and to co-chair the Joint Requirements and Management Board (JRMB). (The JRMB was recently renamed the Defense Acquisition Board or DAB.) Here, he will have special responsibilities for representing the interests of the Commanders-in Chief (CINCs) of the unified and specified commands and reviewing weapons requirements. (3:15,35) The President, in his special message to Congress, asked that this position be created in law. (2:44)

Congress responded by establishing the Vice Chairman of the JCS in the Goldwater-Nichols Department of Defense Reorganization Act of 1986 with duties to be as assigned by the Chairman subject to approval of the Secretary of Defense (SECDEF). However, in the explanatory section of the

accompanying Conference Report, the congressional conferees strongly stated that the Vice Chairman "should not be required to participate too deeply in the defense acquisition process." (8:18-19, 111)

Congress supported the Commission and the President through this action which will also benefit the acquisition process. The conferees' language does not restrict participation in the defense acquisition process and should not impede the Vice Chairman's contributions through the DAB. However, the DoD should ensure that the Vice Chairman's inputs are carefully considered in the DAB deliberations.

It is critical that the DoD shows Congress that the intent as well as the letter of the Packard Commission recommendations and the Goldwater-Nichols Act are being followed. This will have substantial long term payoffs in establishing credibility with the Congress on acquisition reforms. Regaining credibility will be a cornerstone of the overall strategy to follow.

Defense, Service Acquisition Executives, and Program Executive Officers

The Packard Commission Report strongly recommends establishing the Under Secretary of Defense for Acquisition (USD(A)) to serve as the Defense Acquisition Executive (DAE). This individual will be appointed by the President and should have a solid industrial background in manageing

complex technical programs. Key responsibilities will be overseeing the entire acquisition system and setting applicable policy. The USD(A) will be responsibile for military requirements, cost estimates, procurement, operational testing, and sustaining the industrial base. (3:53) The President echoed this need in his special message to Congress. (2:44)

Congress supported the President and established this position in the Military Retirement Reform Act of 1986 (Public Law 99-348) and reiterated it in the Goldwater-Nichols Act. (8:13, 100) They further detailed the USD(A)'s responsibilities in the National Defense Authorization Act for Fiscal Year 1987. These include, (1) supervising DoD acquisition, (2) establishing policies for acquisition for all of DoD, (3) establishing DoD policies for the maintenance of the industrial base, (4) directing the secretaries of the services and other DoD elements with regard to their responsibilities, (5) prescribing policies for audit and oversight of defense activities and preventing duplication, and (6) serving as the senior procurement executive and Defense Acquisition Executive. The Act also makes the USD(A) the third ranking executive in DoD and places the Director of Defense Research and Engineering and the Director of the Office of Small and Disadvantaged Business Utilization under his direction. It also maintains the requirement that the Director of Operational Test and

Evaluation reports directly to SECDEF, but that all of his reports must be forwarded directly to the USD(A). (11:99-100, 493-494)

The Packard Commission Report also recommends that each service establish comparable positions to be filled by a top-level civilian Presidential appointee and serve as the Service Acquisition Executive (SEA) based on the need to maintain the services' traditional role in managing new weapon systems. Each SAE should then appoint a number of Program Executive Officers (PEOs), each "responsible for a reasonble and defined number of acquisition programs." The intent is to give the program managers a direct line for reporting on program matters. (3:54) The President did not ask Congress to take any action on these recommendations, as he believed that changes in law are not required for "those aspects of defense organization that can be accomplished through executive action." (2:44)

While Congress did not establish such positions, it did direct the use of streamlined reporting procedures for SECDEF selected acquisition programs called Defense Enterprise Programs. This directs SECDEF to establish guidelines for the selected programs where a PEO will be established for each program. A program manager will report directly to a PEO who will report directly to a senior procurement executive of the military department with no intervening review or approval. Each PEO will annually

evaluate the job performance of the program manager. (11:102-103)

Congressional action was not necessary in this case as the President had already implemented this procedure as described in the Packard Commission Report by signing National Security Decision Directive (NSDD) 219 on April 1, 1986. (2:36) While Congress' action was consistent with Administration actions, it is an indication that the Congress does not trust the Administration to carry out its own directives. By putting the same provisions in law, they now have a "club" to hold over DoD and the President if the items are not adhered to. This is indicative of an unhealthy relationship between Congress and DoD, a situation that must be reversed if the overall acquisition reform called for by the Packard Commission is to be carried out.

The AF has already directed the implementation of this system to include assignment of the AF SAE, PEOs, and "Executive Programs." (1:1-2, 4:Atch 2) ("Executive Programs" are those that the AF SAE exercises direct oversight.) The AF went one step further than Congress directed by applying this system to all acquisition programs. (4:2, Atch 2) This action should demonstrate AF sincerity in the pursuit of acquisition reform. Nonetheless, implementation will be the "proof-of-the-pudding" that will convince Congress. The AF must make this

work, in practice, to start winning back credibility in Congress. The AF action could also be the model for the other services.

Joint Requirements and Management Board

The Packard Commission recommended a restructured JRMB co-chaired by the USD(A) and the Vice Chairman JCS to define weapon requirements and to provide a trade-off between cost and performance during system development. This will be the key body to decide if full scale development (FSD) should be initiated. The JRMB will be responsible for the "affordability" and "make-or-buy" decisions commonly made in industry, but not now an explicit part of the DoD decision process. (3:57-59) This procedure was established by NSDD 219. (2:37)

Congress did not place any language in the laws that covered this specific area. Nonetheless, Congress' structured review of the Defense Enterprise Programs will ensure congressional oversight of DoD decisions on these programs at the major milestones of FSD (Milestone II) and full rate production (Milestone IIIB). Congress may use milestone authorizations for these designated programs. (11:104)

This review by Congress will be made easier if the DoD decisions are sound and logical. The JRMB, or DAB as it is now called, is the body that can "make-or-break" the process with Defense Enterprise Programs through the rigor

with which they approach their decisions. There is a lot of congressional support and congressional action on acquisition reform possible if the DoD does its part well. In this case, "good" weapon system milestone decisions (objective and logical) by the DAB may well lead Congress to accept and expand the Defense Enterprise Programs with milestone authorizations, a procedure that will help stabilize acquisition programs. The area of program stability will be examined in greater depth in the next chapter.

CHAPTER III

PROGRAM STABILITY

Program stability calls for a fundamental agreement between the program manager and senior management on the specifics of performance, schedule, and cost for a system. As long as the program manager adheres to this "contract," senior management will provide the management support and funding necessary for a successful program. (3:50) At the highest levels, this "contract" covers the Executive Branch's budgeting, structuring, and executing of programs and the Legislative Branch's authorizing and appropriating funds for programs. This concept of a "contract" between the two branches of government is critical to achieving program stability.

Baselining, Multiyear Procurement, Milestone Authorization

The Packard Commission recommended that the armed services committees focus their review of major acquisition programs on the two key program milestones of FSD and the start of high rate production. To facilitate this process, they recommended that the DoD establish program baselines (cost, schedule, and performance goals) to be a contract between the Executive and Legislative Branches based on mutual expectations for the program. This contract will allow the armed services committees to authorize the

programs at the key milestones and not subject them to further review if the programs are meeting established goals. Where practical, the approved programs entering high rate production should be executed through multiyear procurements. (3:26-27, 29)

The President asked Congress to "encourage the use of multiyear procurement on a significantly broader scale," to fund research and development programs on a milestone basis, and to support the baselining concept. He pledged to work with Congress to select appropriate programs for this effort. (2:49)

Baselining and Milestone Authorizations.

The Congress supported this concept by establishing Defense Enterprise Programs. Each service secretary will select programs which will require program baselines to be prepared by the service and submitted to the armed services committees for review. If Congress approves a program to proceed into FSD or full-rate production, it will authorize funds for that entire stage in a single amount, but not to exceed a period of five years. Congress also set up a procedure by which they must be formally notified and informed of any program deviations, to include the submission of a revised baseline. (11:102-105)

It is absolutely critical that the DoD prepare and adhere to program baselines. To begin with, successful use of this procedure will do much to rebuild credibility with

Congress, an essential item if the Legislative and executive Branches are to work together on acquisition reform. Second, adherence to this procedure will bring more dicipline into the management of the programs. These factors will probably influence Congress to follow-through on milestone authorizations and possibly expand the practice to additional programs. (Note: The AF Systems Command has a baselining procedure in being. The AF should review, refine if necessary, and submit the procedure to SECDEF to be institutionalized throughout the DoD in compliance with the law.)

Multiyear Procurement.

The Congress also established goals for the increased use of multiyear contracting authority in fiscal year (FY) 1988. They directed the SECDEF to take appropriate action to increase the use of multiyear contracting to a goal of not less than 10 percent of the total obligational authority of DoD procurement programs during the FY. The SECDEF must submit a report that identifies candidate programs and assesses the desirability and feasibility of the goal. (11:113-114) The 1987 Defense Authorization Act is silent on what actions Congress is willing to do to support these goals.

There is significance in that Congress must approve all multiyear procurements for each applicable program. Past history has indicated that this is an uphill battle for

the DoD despite ample evidence that significant savings have been obtained through multiyear procurements. The DoD is facing a situation where there is no congressional commitment to support multiyear authorizations/ appropriations other than the establishment of general goals. In order to facilitate the desired support, DoD must present a compelling case to Congress, providing actual, thoroughly documented savings that multiyear procurements have worked in the past and that this history is clearly applicable to the proposed programs. Accurate, straightforward, and unambiguous cost estimates are necessary to win congressional support. In their preparation, DoD and the services must keep in mind that their credibility is on the line.

Biennial Budgeting, Five Year Defense Plan (FYDP), Line Item Budget Review

The Packard Commission stated that the Congressional focus on the defense budget is "myopic and misdirected ...with little or no consistancy",and is "invariably late in enactment." (3:21) As a result, the Commission recommends the Congress develop a way to relate projections in the budget resolutions to the five-year budget levels developed in the Executive Branch, to tie biennial defense budgets to that five year plan, to reduce the overly detailed line-item review of the defense budget in favor of a broader, more

operational perspective, and to adhere to its own deadlines in considering the budget. (3:23-29)

Of these items, the President specifically requested only that Congress develop procedures for the authorization and appropriation of defense budgets on a biennial basis, beginning in FY 1988. (2:49) The DoD has submitted (at Congress' request) a two year budget for FY 1988 and 1989. The FY 1987 Authorization Act does not address any of these areas, leaving Congress' intent unknown.

Biennial Budget.

Even though last year's Authorization Bill required the DoD to submit a two year budget (Public Law 99-145), the congressional staff members contacted believe it is highly unlikely that a two year appropriation will result. However, a two year authorization is possible. Many on the Hill agree that single year budgets are not effective; yet, the politics are such that the Congress prefers it that way. Annual budgets are a good way to be flexible in working to reduce the deficit, can help in the "bill paying" process when unexpected funding requirements surface, and it enables "pork barreling" to be used. In addition, several staff members question the benefits of a two year budget in light of expected reprogrammings and supplemental appropriations with their associated workload and resulting instability.

Line Item Review.

Some of the armed services committees staff believe that they could get away from line item deliberations in the authorization process (in fact, they did some of that in last year's authorization), but doubt that the appropriations committees ever would. This was echoed by the appropriations staffers interviewed. They believe that the members like the line item review as a means of legislative oversight, especially as perceived by constituents. In addition, the members' home interests are better identified through line item review. Finally, most of the professional staff believes that the annual scrutiny at the line item level is healthy in the budget process.

However, there is some hope. Senator Nunn has reorganized the Senate Armed Services Committee (SASC) subcommittees along mission lines. The specific intent cited is to improve oversight of policy issues and reduce the micromanagement of specific budget line items. (10:30)

FYDP.

There was little optimism among the congressional staff members contacted that the budget resolutions would be tied to the five year defense plan. The perception on the Hill is that DoD lacks credibility in the preparation and execution of the budget and FYDP. An example often cited is Secretary Weinberger "finding" an excess four billion dollars after the Senate adopted a first concurrent

resolution holding the DoD to zero growth. SASC members stated that this "further undercut the Secretary's credibility." (7:934) Also, the top line funds are political issues that vary from year to year based on national concensus of what's important. Another fact is that the nation does not make long term financial commitments except in rare cases (such as putting a man on the moon).

Some of the congressional staff contacted suggested that a gradual implementation of these concepts might improve the chances of them all becoming accepted. If Congress could be shown that the DoD could internally stabilize the FYDP and two year budgets, and by so doing enhance its credibility, there might be a chance of the items discussed being institutionalized.

Gramm-Rudman-Hollings (G-R-H) Bill

The Packard Commission stated that "instability in defense budget planning has been further exacerbated as a result of the new Gramm-Rudman-Hollings legislation." The automatic cuts allow no analysis or management judgement to be exercised. (3:22-23) The Commission made no recommendations in regard to this Bill and the President made no mention of it in his message to Congress. However, the Administration's displeasure over the Bill has been a matter of public record.

Discussion with the congressional staff indicates

that there is little support in the Congress to try to repeal this Bill, even though many do not like it. The issue of deficit reduction is too emotional with their constituents for them to tackle without an acceptable alternative to G-R-H. The congressional staff believes that slight reductions to the G-R-H targets may be possible.

It seems that the only way to get out from under the Bill would be to devise a new, workable plan to reduce the deficit and to prove to the Congress that it will work. Only under those circumstances would the Congress consider repealing the current Bill.

Congressional Committee Relationships/Conflicts

The Packard Commission cites jurisdictional disputes within the authorization and appropriation processes leading to overlapping review of many line items of the defense budget. (3:24) In addition, there have been many cases where programs have been appropriated without authorizations. These conflicts lead to inefficiency and confusion within the DoD due to the conflicting congressional direction. Even the SASC in an April 1986 report stated,

> Committee jurisdictions must be reasserted and tightened to minimize overlap and duplication. Redundant legislative phases of budgeting, authorizing, and appropriating must be consolidated. (3:24)

The President asked Congress to "return to a more orderly process involving only a few key committees to oversee the defense program." This request was to alleviate

the fragmented oversight process of over 40 committees that claim jurisdiction over various portions of the defense program. (2:49)

Again, Congress chose to not respond to these areas in law and the staff members contacted did not see any real hope in this area. The politics of members using committee positions as forums to espouse their views and to get public recognition as a result will probably perpetuate the system. Taking "shots" at defense gets media coverage and that helps members get votes. As one staffer said, "The number one priority of the members is to get reelected." This perspective will keep members reviewing whatever is in the public's eye; therefore, the number of reviewing committees will remain large. Politics reigns!

In regard to the authorizations/appropriations conflicts, some staffers say it is a matter of personalities while others believe that interests of individual congressmen and their constituents (the pork barrel) are the root causes. In either case, the congressional leadership would have to weigh-in to make any changes and it would be a difficult battle. This would take a lot of convincing by the Executive Branch and congressional leadership before this would be taken on, if at all.

There is little that the DoD can do in this situation except to point out the problems and keep pressure on Congress to resolve them. Specifically, a detailed

listing of committee reviews and time spent on them may convince congressional leadership to curb some of the excessive hearings. The President or SECDEF might suggest a review process by the leadership to control defense hearings. As for disparities between specific authorizations and appropriations, all that DoD can do is highlight them and push for resolution. Some influence is all that can be hoped for since this is an internal problem to the Congress.

Senator Goldwater, just before his retirement as the Chairman of the SASC, asserted that an efficient approach would be to combine the budgeting, authorizing, and appropriating functions in a more cohesive, centralized mechanism. Unfortunately, he sees "entrenched parochialism and vested interests" mitigating against such remedies. (12:80) Nonetheless, the President and the SECDEF may want to foster this idea in Congress over the long term.

CHAPTER IV

LIMITED REPORTING REQUIREMENTS

The Packard Commission recognized limited reporting requirements between the program manager and the Chief Executive Officer (on a management-by-exception basis) as a measure of merit. (3:50) This aspect was covered in Chapter II in the discussion of clear command channels. However, there is another dimension to this area that is applicable, and that is the volume of reports that must be submitted by the DoD to Congress. The Packard Commission Report recommends that Congress review and make reductions in the number of reports it requires from DoD and closely control requirements for new reports in the future. (3:29) The President did not address this item in his message to Congress.

It appears that Congress took this recommendation seriously in the Goldwater-Nichols Defense Reorganization Act. The Act formally affirms the policy of Congress to reduce the administrative burden on the DoD "by outdated, redundant, or otherwise unnecessary reporting requirements." (8:160) The act eliminated several hundred reports that they believed fell into this category. Key to this action was the requirement for SECDEF to compile a list of all periodic reports, notifications, and studies required of the DoD and the President; submit that list to Congress with

recommendations as to whether the requirement should be deleted, retained, or modified; and include a draft of the legislation necessary for the elimination of the applicable reporting requirements. (8:79-88, 160)

This is a good opportunity for the DoD to take on a task that could have a high payoff in reducing administrative effort as well as demonstrating resolve to seriously accomplish any task contributing to acquisition reform. A complete list with honest assessments and a well written draft of legislation will go a long way in convincing the Congress to eliminate the subject reports. They will also show full DoD cooperation with Congress in the acquisition reform process. This will be a positive step forward in restoring the credibility of the Department <u>if</u> the DoD avoids overstating their case and doesn't try to avoid the work involved in compiling the list and assessments.

CHAPTER V

SMALL, HIGH QUALITY STAFFS

The Packard Commission was primarily talking about the program manager's staff when this concept was described. (3:50) While the program office is the primary focus, it can also be applied to the headquarters' staffs and procedures that deal in the acquisition process. Therefore, the small staffs contemplated will require streamlined organization and procedures to effectively do their job. In addition, the staffs will necessarily have to be of high quality to handle the increased workload. Each area will be examined separately.

Streamline Acquisition Organization and Procedures

The Packard Commission advocated establishing the USD(A) as DAE, service DAEs, and service PEOs as key to streamling acquisition organization and procedures. (3:53-54) This was discussed in some detail in Chapter II. In regard to streamlined procedures, the Commission recommended that "federal laws governing procurement should be recodified into a single, greatly simplified statute applicable government-wide." (3:55) The reason is that the DoD operating levels cannot assimilate new legislative or regulatory refinements promptly or effectively due to existing cumbersome requirements. (3:55) The President stated in his special message to Congress that federal

procurement law is overly complex and spawns much administrative regulation to implement them. He states that both the Executive and Legislative Branches must "add and subtract to the body of law ... replacing it with sound business practices, innovation, and plain common sense." (2:48) The President, in NSDD 219, directs the Administration to work with Congress to recodify all procurement statutes into a single government-wide procurement statute. The Office of Management and Budget (OMB) was directed to work with DoD and other federal agencies and submit a legislative initiative to the President that "accomplishes the needed consolidation, simplification, and consistency." (2:36-37)

Congress has not referenced this need in law. Discussions with staffers indicate that they are receptive to an Administration initiative in this area since the idea of recodification is good in theory; but, the law will be difficult to get passed. There are some reservations with the members of Congress accepting such a major change and there may be a problem with fragmented jurisdiction over the laws in question. It is probable that Congress would act slowly on this in order to consider all of the ramifications of such a major change.

These problems could be overcome, but only with a diligent and thorough effort by DoD and OMB to develop a legislative package that is well documented and justified.

While it may be true that OMB has the lead and OSD would be their primary interface, the AF needs to be bold in stepping up to the problem. This is justified based on the greater acquisition experience of the AF and a more focused staff (contracting, legal, etc.) than OSD.

The AF should review and catalog all existing laws, determine how to simplify them according to AF needs, carefully justify the changes, and draft the proposed legislation to carry it out. The AF should then push the package through OSD to OMB. By taking the initiative on this, the AF stands a better chance of getting its ideas accepted and getting the whole effort "off the ground" quickly. The detailed justification/ rationale will speed the process and be the basis for successful hearings on the package in the future.

Reduce Number of Acquisition Personnel

The Packard Commission believes that if the acquisition system is in fact simplified, it will allow substantial reductions in the total number of people in the defense acquisition field and make it comparable to its commercial counterparts. (3:55) The President did not address this recommendation either to Congress or in his NSDD 219.

Nonetheless, Congress moved decisively in the Goldwater-Nichols Act by requiring a 10 percent reduction of military and civilian personnel assigned to headquarters

activities by September 30, 1988 (with certain headquarters staffs exempted). (9:1064) In the Joint Explanatory Statement of the conference report accompanying this act, the conferees state that they expect the major source of personnel reductions to come from the streamlining of acquisition activities. (8:160)

This congressional action may be premature since there is no way to know at this time how much reduction may be possible due to streamlining activities. At the same time, Congress shows no indications of reducing their demands on acquisition staffs (e.g. number of hearings, congressional inquiries, inserts for the record, staffer questions/briefings, etc.). The danger in this situation is the possibility that some important aspects of the acquisition task may not get done or be done improperly if the manpower goes down and the task level remains the same or increases.

This is aggravated by a potential manpower crisis facing the services. Secretary of the AF Aldridge states, "I see a crisis in a continuing expansion of collateral missions--that is, missions outside our basic charter--without additional manpower authorizations." He also stated, "I also see a crisis in a growing force of technologically sophisticated systems without enough qualified men and women to operate them." (5:4)

The DoD must comply with the law; however, it must also do the job. The DoD (and AF) must go back to Congress for relief of the overall manpower crisis. The DoD has an opportunity here to help itself and enhance its credibility. If it effectively reorganizes and frees up spaces, these spaces could be applied to critical undermanned mission areas. The DoD could then approach Congress with an offer to further reduce the acquisition staffs if Congress would reduce their staffs. The additional freed manpower slots could also go to critical mission areas. This approach has a compelling logic since it shows that DoD is trying to help itself first; and only then, after it has established its good faith through results in reducing acquisition manpower needs, will DoD go back to Congress.

Enhance Quality of Acquisition Personnel

The Packard Commission states that "it is vitally important to enhance the quality of the defense acquisition workforce--through attracting qualified new personnel and by improving the training and motivation of current personnel." (3:66-67) They suggest changes in the senior-level appointment system, personnel management policies, and education programs. The only congressional action required in this area is a change in federal law to permit expanded opportunities for the education and training of civilian acquisition personnel. (3:66) The President directed the SECDEF to report to him on measures to strengthen personnel

management policies for civilians with acquisition responsibilities. (2:37) He did not ask Congress to act in this area.

Past legislation has underscored Congress' interest in this subject. In 1984, Congress legislated a requirement for a minimum of four years for major program management assignments. The 1986 Authorization Act prescribed necessary qualifications and training for program managers (i.e., at least eight years of acquisition experience and instruction at the Defense Systems Management College, or equivalent). (3:67)

Congress continued this concern with the 1987 Authorization Act. They require the SECDEF to submit reports to Congress to show plans for the enhancement of professionalism of acquisition personnel and for the coordination of defense acquisition education programs. The former requires standards for the following: examination, appointment, classification, and assignment of acquisition personnel; the feasibility and desirability of making certain positions professional positions; the establishment of an alternative personnel system to include professional positions; and the inclusion of quality performance as a promotion criterion for those positions. They also require recommendations for any changes to existing law to facilitate the enhancement of professionalism and career opportunities for DoD acquisition personnel. (11:129)

The latter report requires SECDEF to show the armed services committees how all DoD managed educational programs for acquisition personnel are coordinated. Specifically, the intent is to eliminate duplication of courses, to ensure adequate acquisition specialties are taught, and to provide adequate acquisition education, whether by the DoD or other organizations. (11:130)

These requirements are in line with the Packard Commission recommendations and will be in the DoDs best interests. The reports give the DoD an opportunity to strongly influence congressional action in these key areas. Again, the AF (as the recognized leader among the services in the acquisition field) should take the initiative in preparing recommendations to OSD for training, education, personnel management, and proposed legislation. In this way, the AF will have the edge in getting what it desires in these areas.

CHAPTER VI

PROTOTYPING AND TESTING

The Packard Commission placed a high priority on building and testing prototypes to demonstrate new technology to improve military capability and to be the basis of more realistic cost estimates. It saw operational testing starting early using advanced development hardware. The Defense Advanced Research Projects Agency (DARPA) was singled out to accomplish prototyping and advanced development work on joint programs and areas not adequately emphasized by the services. The cycle should be streamlined and shortened and emphasis should be placed on informal competition of ideas and technologies rather than formal competition of cost. (3:55-56) The President did not address this area either in his message to Congress or his NSDD.

Again, Congress saw fit to legislate a Commission recommendation as well as add requirements. The 1987 Authorization Act requires the SECDEF to use a competitive prototype program strategy in developing major weapon systems and its subsystems. The directed competition must be between at least two contractors and is to determine the most effective system through side-by-side testing of system prototypes under simulated combat conditions. In addition, cost estimates must be submitted for FSD and production

(where possible) along with the basis for such estimates. (11:110)

This requirement is consistent with the Commission recommendations. While the requirement only applies to major weapon systems, there will probably be other systems where this procedure would apply. The AF should assess all system and subsystem developments as to the advisability to competitively prototype. The AF should voluntarily keep Congress informed about all programs using this approach and the results. In this way, the AF would show its good intentions in implementing the Packard Commission reforms regarding the intent and not just the letter of the legislation. A major objective is to show resolve to improve the acquisition process, not just fill the legislative "squares."

CHAPTER VII

OTHER RECOMMENDATIONS

This section covers those Packard Commission recommendations concerning weapon system acquisition that do not conveniently fall under one of the six major headings (features of a successful commercial program).

Expand Use of Commercial Products

The Packard Commission recommended that maximum use should be made of commercial "off-the-shelf" items instead of newly developed or custom-made items. The Federal Acquisition Regulation (FAR) should be changed to encourage the streamlining of the military specifications. The Commission believes the resulting use of market pressures would reduce cost as well as relieve the DoD of the administrative burden of verifying contractor overhead costs. (3:60-62) The President was silent on this issue.

In the 1987 Authorization Act, the Congress directed the SECDEF to ensure, to the maximum extent practicable, that DoD requirements be stated in terms of functions, performance, and essential physical characteristics. The requirements are to be defined so that nondevelopmental items (off-the-shelf or previously-developed items in use or in production) may be procured to fulfill the requirements. In addition, the Congress required the SECDEF to submit a report to identify actions taken, to identify all statutes

and regulations that impede acquisition of non-developmental items, and to recommend any necessary legislation to promote maximum procurement of these items. The Comptroller General (General Accounting Office - GAO) will conduct an independent evaluation of DoDs actions and submit a report within two years. (11:105-106, 495-496)

Here again, Congress has acted in consonance with the Packard Commission Report and has gone beyond it in seeking a complete solution to the problem. However, they have again shown that they are not confident that the DoD will accomplish the directed tasks on their own, so they have set up a review of the results by a third party. Again, the DoD has the opportunity to help itself and to build-up its weakened credibility with Congress. The AF should take the lead and draft an effective piece of legislation to meet this requirement. It will pay dividends.

Increase Use of Competition

The Packard Commission recommended that both federal law and DoD regulations provide for substantially increased use of commercial type competition (quality and performance, as well as price). They emphasized that price should not be the sole determinant. In order to attract the best suppliers, procurement procedures must be made less cumbersome. Finally, Congress and DoD should eliminate legal and regulatory provisions that are at variance with

the use of commercial competitive practices. (3:62-64) The President did not directly address this area.

The Congress did not legislate anything to implement this recommendation in 1986 or 1987 (other than competitive prototyping for major weapon systems--see Chapter VI). However, there has been earlier legislation that has addressed the competition issue. In 1984, Congress passed the Defense Procurement Reform Act and the Small Business and Federal Procurement Competition Enhancement Act, both designed to direct the government to compete a larger percentage of procurements. Also in 1984, Congress passed the Competition in Contracting Act (CICA) to limit the number of circumstances where non-competitive procurements were permitted. Finally, congressional interest was further evidenced by legislation to establish competition advocates within the services. (6:555)

Congressional interest in increased competition is evident; yet, Packard points out that the CICA has been interpreted to mean that the government <u>must</u> buy from the lowest bidder at the expense of other equally important factors. (3:63) The congressional staff has stated that there is concern that too much emphasis is placed on the technical quality of proposals and other non-price factors with insufficient emphasis on price. (9:555) Therefore, in order to implement the commercial practices recommended by the Commission, the DoD must take the initiative in

identifying the impediments, justifying the necessary changes to the regulations and laws, and proposing new legislation to correct the situation. However, a strong case must be built for the use of the commercial practices to convince the congressional staff of the worth of the procedure and to reverse their current thinking.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

Congressional legislation or lack of it regarding the Packard Commission recommendations falls in three categories:

1. Legislation in direct support of (or beyond) the recommendations.

2. Legislation inferring future congressional action in support of the recommendations.

3. No congressional action on the recommendations.

Each requires different action or emphasis by the DoD to obtain the necessary congressional support for acquisition reform.

Legislation in Direct Support

Between the Goldwater-Nichols Defense Reorganization Act of 1986 and the 1987 Authorization Act, Congress directed a number of the Packard Commission recommendations. The DoD should have no problem with implementing these as they are consistent with the President's NSDD and will improve the acquisition process. The following actions apply:

1. Congress established positions of the Vice Chairman of the JCS and the USD(A). These positions have been filled.

2. DoD is to propose Defense Enterprise Programs

for potential application of baselining, milestone authorization, and streamlined reporting (from the program manager through the PEO to the SAE and DAE). Here, DoD and the services should institutionalize this system (possibly using the AF model recently implemented) for use on all major programs even before a list is submitted to Congress. In this way, DoD will show good faith for the actual streamlining effort. Through demonstrated success of this procedure, the DoD could convince Congress to follow through on the milestone authorizations which would be a large step forward for program stability.

3. Congress eliminated a large number of reports required from the DoD.

4. Congress directed a reduction in headquarters personnel by 10 percent by 1988 (much of which should come from acquisition streamlining). This will require some innovative work by the services to comply without adverse effect on the services' missions. Doing this cleanly without "hiding" people will show Congress a seriousness to comply and meet the intent of acquisition reform. Positive DoD results may also help the existing manpower problems in the services and may be used to convince Congress to grant manpower relief DoD-wide.

5. DoD was directed to enhance the quality of acquisition personnel through applying required training, education, and qualifications for program managers and in

providing a plan for professional enhancement. Again, a well thought out approach will be necessary to convince Congress of the seriousness of the DoD efforts.

6. DoD was directed to implement prototype competition for major weapon systems.

7. DoD was directed to maximize procurement of commercial "off-the-shelf" (non-developmental) items. This will require significant effort in terms of emphasis on regulations (particularly the FARs) and in management attention to overcome institutional inertia. Since Congress requires a report on actions taken, it will be important for the DoD to comply vigorously and show positive results.

These items provide the DoD an excellent opportunity to enhance its credibility with Congress while improving its acquisition system with the help and support of Congress. By complying with the letter and intent of the law, DoD will comply with presidential and congressional direction, showing a determination for acquisition reform. Any use of "smoke and mirrors" to give the impression of reform while continuing business as usual will have devastating effects on the Hill and should be avoided at all costs. The goal of improved acquisition must be kept in the forefront.

Legislation Inferring Future Action

These items require inputs from DoD to Congress that may or may not be acted on, but are key to the overall effectiveness of the acquisition reform. Congress' future

action or inaction on these will depend on how compelling DoDs submissions are. Therefore, even more emphasis needs to be placed on these items than on the last set. These items follow:

1. Congress set goals for multiyear procurements. DoD must submit a justified list of programs for congressional approval. Given Congress' reluctance in the past to approve multiyear procurements, a strong case needs to be made by DoD to sell the desired programs. Documented history of past successes and the reasons why they were successful need to be compiled and related to the proposed programs. Only facts will sell this to Congress. Their willingness to set goals higher than what is in practice today shows a willingness to listen. The DoD must capitalize on the receptiveness of Congress and must use hard data and logic, not emotionalism and "trust me" type approaches.

2. Congress asked for a proposed list of Defense Enterprise Programs. Their decision to implement milestone authorizations will depend primarily on the credibility of the program baselines prepared and submitted. These documents must be realistic and must represent a management commitment by the service managing the program as well as by the SAE and DAE. Even for those programs not selected as Defense Enterprise Programs, the credibility of the services will be enhanced if the process is used internally. It

shows a commitment to excellence for acquisition management. At worst, the DoD process is improved, and, at best, milestone authorizations will be adopted for the selected programs. If this process is adopted and is successful, Congress may even extend the process to all major programs. This will contribute greatly to program stability.

3. Congress has requested the DoD to prepare draft legislation in three areas:

a. Further reduction of reports that are unnecessary and/or redundant.

b. Changes to existing laws to facilitate the enhancement of professionalism and career opportunities for DoD acquisition personnel.

c. Promotion of non-developmental item procurement.

These items present a unique opportunity for the DoD to write the law the way it should be. Congress has not only shown an inclination to change legislation that is impeding improved acquisition, but is willing to consider actual language as prepared by DoD. Again, it is essential that the DoD capitalize on the opportunity.

No Congressional Action

This is the most difficult area for the DoD to address. These are Packard Commission recommendations that are considered critical to the overall success of the acquisition reform; yet, Congress was silent in their

otherwise comprehensive legislation on the subject. As a result, if the DoD wants these to be instituted, it must take the initiative to get Congress to act. The probability of success is not nearly as high as with the previous categories; but, the potential contributions are great. The specific areas follow:

The two-year budget.

Here, the armed services committees are more amiable to the idea than the appropriations committees. Wide-spread two year authorizations may follow from the milestone authorizations, if instituted. Success in the execution of the two year authorization process could then be used to try to convince the appropriation committees to follow suit. If the authorization experiment is successful, Armed Services Committee support may be forthcoming in working with the appropriations committees. The DoD must be diligent in execution and documentation of the effects of milestone authorizations and be patient in working toward two-year appropriations.

Elimination of detailed line item review of the budget in favor of operational categories.

Again, some support can be expected from the armed services committees (especially the SASC) with little or no support from the appropriations committees.

Budget resolutions tied to the FYDP.

This would require convincing the budget committees

that the FYDP was sound and relatively stable for them to consider it in their budget resolutions. It will take time to consolidate the necessary historical data to make such a case, if a case can even be made. There is little possibility that this can be carried out unless the President and the SECDEF make a conscious effort to do so.

Repeal of the Gramm-Rudman-Hollings Bill.

Due to the political stake that Congress has in this, only replacement legislation to reduce the deficit would do. This also has a low probability of success even with alternative legislation.

Excessive congressional committee review/conflict.

This is really an internal problem of Congress with little potential for direct DoD influence. Even though the President addressed this directly in his message to Congress, and Congress is aware of the problem, they show little inclination to change their committee prerogatives. While this is not a fruitful area for DoD to directly pursue, the SECDEF should influence the President to continue to press for reductions or at least a limit of growth in the congressional staffs.

Recodification of procurement statutes.

This is a high payoff area that begs attention. The DoD should take an active role in drafting the legislation to accomplish this action even though the President gave the lead to OMB. The DoD has a lot more to gain than any of the

other departments and should make every effort to push this action through to completion.

Increased use of commercial style competition.

DoD must identify impediments to this, correct the necessary regulations, and draft legislation to correct the related statutes. Strong justification will be needed to convince the congressional staffs and members that commercial practices are worthwhile and that the changes to law will allow improved procedures without significant drawbacks.

General Conclusion

Discussions with a number of staffers indicate that the Congress believes that they have done enough in the short term for acquisition reform. They are now in a "sit-back-and-wait" mode to see what the DoD will do in regard to the congressional direction and the remaining Packard Commission recommendations. The ball is in DoDs court, which has some significant implications.

The DoD must first reestablish its credibility with Congress. This will result only through compliance with both the letter and intent of the laws passed. It will also require the DoD to thoroughly consider all Packard Commission recommendations and implement as many as make good business and defense sense. Superficial actions or attempts to deceive the Congress will undermine any chances the DoD has of getting Congress to implement additional

necessary legislative actions for acquisition reform. Finally, the DoD must be completely "above-board" with Congress on the budget, especially research and development and weapon system procurement accounts. (This means accurate budgets without inflated estimates, straightforward program status, no "gaming" the system to get desired total budget authority, etc.) Each individual service must "play by the rules" if this strategy is to work. The DoD must be deadly serious about acquisition reform when dealing with the services and Congress if they expect Congress to be serious in return.

The Congress seems to have been quite supportive of this major Executive Branch initiative. The DoD needs to take advantage of this somewhat unique opportunity. Congress has legislated numerous Packard Commission recommendations which indicate that they believe them to be important enough to ensure implementation yet don't trust DoD to implement them even though presidential direction exists. As a result, the DoD must conform to congressional direction and take the initiative to press for as many changes as possible. The DoD must recognize that reform efforts will be a slow process over a number of years. They must keep the reform goals in focus, keep pressure on Congress to live up to their commitments to the process, and effectively work in-house to improve acquisition.

The combination of the general acceptance of the Packard Commission recommendations, the presidential desire and direction to put them into effect, and congressional support provides an opportunity for significant improvement that may be a long time coming again. The DoD has an opportunity for a giant step forward regardless of Congress' response. It is my hope that DoD will aggressively pursue the opportunities open to it.

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THE PACKARD COMMISSION REPORT

AND ITS IMPACT ON THE AIR STAFF AND AIR FORCE SECRETARIAT

BY

Fred T. McGregor, Jr.
Lieutenant Colonel, USAF

2-1

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BIOGRAPHICAL SKETCH

Lt Colonel Fred McGregor has spent most of his Air Force career in the acquisition field, serving at various levels. After graduation from the Air Force Academy in 1970 and an initial assignment in the Special Services career field, Colonel McGregor attended the Air Force Institute of Technology where he earned a Master of Science degree in systems management in 1974. He then was assigned to the Aeronautical Systems Division where he served in various acquisition jobs, including financial manager and test director for several avionics programs and, finally, as program manager for the UHF Radio Modernization Program. Colonel McGregor moved to Headquarters Air Force Systems Command in 1978, serving as systems officer for the NATO Airborne Early Warning and Control program and later as systems officer for the U.S. and Royal Saudi Air Force E-3 Airborne Warning and Control System programs. After graduation from the Armed Forces Staff College, he was assigned in 1982 to Headquarters Air Force as program element manager for Advanced Communication Systems. Colonel McGregor is a graduate of the Air War College, Class of 1987.

TABLE OF CONTENTS

	Page
Introduction	2-5
The Packard Commission	2-8
National Security Planning and Budgeting	2-9
Acquisition Organization and Procedures	2-10
Packard Commission Intent	2-13
Congressional Direction	2-15
DOD and DAF Actions	2-19
Shortfalls in Implementation	2-22
What More Can Be Done	2-26
Conclusion and Summary	2-29
References	2-31

INTRODUCTION

In July 1985, the President chartered the Blue Ribbon Commission on Defense Management to "study the issues surrounding defense management and organization, and report its findings and recommendations." (1:xi) The President designated Mr. David Packard, former Deputy Secretary of Defense and a successful business entrepreneur, to chair the Blue Ribbon Commission (hereafter referred to as the Packard Commission, or the Commission). For approximately one year, the Commission looked at all aspects of defense management, including operational organization and management structure. The key focus of this paper, however, is the Commission's study of defense acquisition management.

From an acquisition standpoint, a primary driver behind establishing the Commission was the significant publicity given to a number of examples resulting from costly acquisition practices -- e.g., $400 hammers, $700 aircraft seat arm rests, and $7,600 C-5 coffee pots. In addition, defense reformers discussed in many fora examples of Department of Defense weapon systems which did not perform as advertised or did not satisfy the intended operational requirement. As a result, the Administration and the Congress -- and the American people -- saw a clear need for reforming and, perhaps, completely overhauling the defense acquisition system.

In June 1986, the Commission delivered its final report

to the President. The President had already initiated many actions to implement Commission recommendations based on the Commission's interim report of February 1986 and on the continual involvement by Administration personnel in the Commission's deliberations. The President and the Secretary of Defense welcomed the Commission report. In April 1986, the Deputy Secretary of Defense stated that the Department of Defense views the Commission's report "as a new and important stimulus to continue improving our management of defense programs and policy." (4:20)

The purpose of this paper is to explore what more could be done to improve the acquisition management process in the Air Force from an Air Staff and an Air Force Secretariat level perspective. To accomplish this purpose, the paper will describe the impact on the Air Staff and Air Force Secretariat roles in acquisition management as a result of the Packard Commission, as well as congressional legislation, which codified many of the Commission's recommendations. The paper will address the following questions:

1. What was the intent of the Packard Commission and what were its key recommendations pertaining to Air Staff and Air Force Secretariat involvement in the acquisition process?

2. What has Congress directed?

3. What have the Department of Defense (DOD) and the Department of the Air Force (DAF) done, or what are they in the process of doing to implement Packard Commission recommendations and congressional direction?

4. What shortfalls exist in meeting the Packard Commission recommendations and its intent?

5. What more could be done: within the DOD and the DAF? in Congress?

Subsequent sections in this paper will each tackle one of these five key questions. A final section will provide an overall conclusion and summary assessment of current reforms in the context of a continual, ongoing process of change in the acquisition system.

THE PACKARD COMMISSION

The Packard Commission directed its efforts toward six key results: (1:3)

1. To improve overall defense decision-making by the Executive Branch and the Congress.

2. To organize and charter military leadership to provide necessary assistance for effective long-range planning.

3. To provide better organization and command of combat forces for attainment of national objectives.

4. To strengthen and streamline control of the entire acquisition system -- research, development and procurement.

5. To minimize waste and delay in development of new weapons and provide greater assurance that equipment will perform as expected.

6. To provide a more honest, productive partnership of DOD and industry that works in the national interest.

In pursuit of this basic intent, the Packard Commission focused on four areas: national security planning and budgeting, military organization and command, acquisition organization and procedures, and government-industry accountability. (1:xvii)

From an Air Staff and Air Force Secretariat viewpoint of the acquisition process, the two key areas of concern to the Packard Commission were, first, national security planning and budgeting and, second, acquisition organization and procedures. The key recommendations in these two areas are as follows.

National Security Planning and Budgeting

The Packard Commission recommended establishing a new planning and budgeting process with emphasis placed on a more operationally oriented structure. This new process would place major emphasis on inputs from the Joint Chiefs of Staff (JCS) and the Commanders-in-Chief (CINCs) of the various unified and specified operational commands. The JCS, with inputs from the CINCs and the Central Intelligence Agency, would provide military strategy options and tradeoffs to the Secretary of Defense (SECDEF) and the President to meet national objectives. These options and tradeoffs would be identified within the realistic resource constraints of a Presidentially directed Five Year Defense Program (FYDP), which would be binding on all elements of the Administration. Further, the Commission recommended the Administration and the Congress deal with biennial budgets with a definite operational orientation and structure. Finally, the Commission thought that baselining and multi-year procurement would be important elements of such a new process, providing reinforcement for desired milestone authorizations from Congress. (1:9-30)

The Packard Commission realized, however, that for this new process to work a number of assurances from Congress were needed. The Commission outlined five key congressional commitments which would be required to help make the new process a success. (1:28-29)

1. Review the budget in terms of operational concepts and categories versus detailed line items.

2. Review the budget and provide authorization for individual programs concentrating on new efforts at key milestones (i.e., start of full-scale development (FSD) and start of high-rate production) and in terms of contributions to major defense missions.

3. Review the budget by Appropriations Committees, using the new operationally oriented budget structure, to adjust the DOD budget to congressional budget resolution levels through refinements based on new information not available when the DOD budget was formulated.

4. Adhere to congressional budget process deadlines -- i.e., no continuing resolutions.

5. Reduce significantly the number of reports required for submission by the DOD.

With commitment by the Administration and the Congress to this new, more operationally oriented planning and budgeting process, the Commission believed that solid ground would be established for strengthening the overall acquisition system environment. Not only would the planning and budgeting process be more responsive to operational needs, but also the process could create a more stable funding environment for the acquisition community which, in turn, could be more responsive in meeting those same operational needs.

Acquisition Organization and Procedures

In addition to the above key planning and budgeting recommendations which were to effect the acquisition system, the Packard Commission recommended a number of other organizational and procedural changes. These recommended changes were divided into three areas.

First, the Commission wanted to streamline the overall acquisition system. In this area the Commission recommended the creation of a new position within the DOD -- the Under Secretary of Defense for Acquisition (USD(A)). This individual would be the Defense Acquisition Executive (DAE). He would have full responsibility for managing the defense acquisition system. To provide a clear line of responsibility from the USD(A) to the individual programs being managed in the field, the Commission also recommended that a single Service Acquisition Executive (SAE) be established within each of the military Services. Further, the Commission recommended that the Services be required to designate Program Executive Officers (PEOs) who would oversee a number of service acquisition programs and would act as the single level of responsibility between the individual program managers and the SAE. Overall, the Commission intended that such a structure would reduce significantly the total number of acquisition personnel in the DOD, creating a more streamlined, efficient and effective organization. (1:52-55)

Second, the Commission wanted to provide for more balance between cost and performance in the acquisition process. To contribute to this goal, the Commission made two recommendations effecting the Joint Requirements and Management Board (JRMB), or Defense Acquisition Board (DAB) as it has now been renamed. The first recommendation was that the DAB be co-chaired by the new USD(A) and by the Vice

Chairman of the JCS, a new position recommended by the Commission in another portion of its report, as well as by other defense experts. The second recommendation was that the DAB provide for early trade-offs between cost and performance, thoroughly scrubbing the requirements and making affordability and make-or-buy decisions. These changes would seek to provide greater operational insight into decisions about whether or not to go forward with acquisition of a system to meet a particular requirement, as well as what approach should be pursued to meet the requirement. (1:57-59)

Third, the Commission sought to provide stability to those programs which were approved for implementation. Baselining was one key element in the Commission's concept of how to provide better program stability. The Commission recommended that the DOD establish a baseline for all major weapon systems at the start of full scale development (FSD). The baseline would provide a cost, schedule and performance contract between the various levels of responsibility in the acquisition process -- all the way from the individual program manager to Congress. Management attention -- and even congressional attention -- given to restructuring programs would be focused on those programs which had difficulty in maintaining the assigned baseline. For those programs that were able to maintain their baselines, the philosophy would be to "let them alone," at least until their next major milestone decision.

Tied to this management by exception philosophy was the Commission's recommendation to expand the use of multi-year funding for high priority systems. Such systems would receive authorization and appropriation of adequate funds to cover program costs through to the next major program milestone -- hence, the name "milestone authorizations and appropriations." Following this procedure, a program could receive adequate funding to cover its entire development and low-rate production phase or its entire full-rate production phase, without having to go back to Congress -- unless the program could not maintain its baseline. Thus, at least for some selected major programs, stability would be assured. (1:59-60)

Packard Commission Intent

In the final analysis, the Commission sought to create an acquisition environment in which DOD programs would emulate successful commercial programs. The Commission was convinced that there were six major characteristics which could be found in successful commercial programs: (1:50)

1. Clear command channels.

2. Program stability.

3. Limited reporting requirements -- and on an exception basis.

4. Small, high quality staffs who manage the program versus selling and defending it all the time.

5. Good communications with the customers, including performance tradeoffs.

6. Prototyping and testing.

From an Air Staff and Air Force Secretariat perspective, the Commission's recommendations in the areas of national security planning and budgeting and of acquisition organization and procedures, as described above, would go a long way toward creating an environment which would nurture most, if not all, of the characteristics of successful commercial programs. The support provided by the President and the Secretary of Defense to the Commission's recommendations is a significant affirmation to the soundness of the Commission's suggested approach to improving the acquisition process. Further affirmation to the soundness of the approach is the fact that Congress has also embraced many of the Commission recommendations.

CONGRESSIONAL DIRECTION

In a cooperative spirit and in response to the President's request, the Congress codified many key recommendations of the Commission in the Goldwater-Nichols Department of Defense Reorganization Act of 1986 and the Defense Acquisition Improvement Act of 1986, which is Title IX of the National Defense Authorization Act for Fiscal Year 1987. The recommendations which have been codified and are of particular concern in this paper are as follows:

1. Established the position of Vice-Chairman of the JCS. (2:18-19)

2. Designated that the Office of the Secretary of the Air Force would have sole responsibility within the Air Force Secretariat and the Air Staff for the following functions: acquisition, auditing, comptroller, information management, inspector general, legislative affairs, and public affairs. (2:70)

3. Required consolidation of functions between the Air Staff and the Secretariat to ensure no duplication of any function on both staffs. (2:71;151-152)

4. Directed a fifteen per cent reduction in personnel assigned or detailed to the Secretariat and Air Staff and directed a ten per cent reduction at other management headquarters activities as of the end of Fiscal Year 1988. (2:70-71;77-79;149;158)

5. Directed the SECDEF to compile a list of all legislation requiring submission of a report, notification, or study to Congress; and terminated, with numerous (52) exceptions, reporting requirements from existing DOD legislation. (2:79-89)

6. Established the USD(A), designating him as the Defense Acquisition Executive (DAE) and as the #3 position in the Office of the Secretary of

Defense. He will co-chair the DAB with the Vice-Chairman of the JCS. (3:98-99)

7. Established a Deputy USD(A) to assist the USD(A). (3:99)

8. Required establishment of cost, schedule, and technical baseline descriptions for major defense acquisition programs both before entering FSD and before entering full-rate production, and required program deviation reports for submission to Congress whenever the baseline will be breached. (3:101-102)

9. Required establishment of PEOs for key programs (e.g., the Advanced Tactical Fighter program), which Congress calls Defense Enterprise Programs. (3:102-103)

10. Directed streamlined reporting for Defense Enterprise Programs, thereby creating a limited, four-tier reporting process -- from program managers to PEOs to SAEs to the DAE. (3:102-103)

11. Provided for milestone authorizations, up to five years, for defense acquisition programs which are nominated by the Secretary of Defense and approved by the Congress; however, no assurances are provided for congressional support for appropriations. (3:103-105)

12. Established goals for increased use of multi-year contracting by the DOD; although, like milestone authorizations, the law provided no assurance of congressional support when it comes time to appropriate funds. (3:113-114)

When comparing the above list of congressional directions with the Packard Commission recommendations, one may be impressed at the responsiveness of Congress in quickly reacting to the President's request for action. **However, there are significant Commission recommendations about which the Congress was silent.**

First, Congress did not agree to a revised structure for the DOD budget based on an operational orientation rather than the current detailed line item

approach. Congress appears reluctant to forego the micro-information level of detail that has been provided to them in the past. Congress is probably comfortable with the line item approach and the level of detail it provides and is probably uncertain about the proposed operational orientation. However, to the credit of the new Chairman of the Senate Armed Services Committee (SASC), Senator Nunn has reorganized his committee along mission lines. According to a February 1987 article in Air Force Magazine, Senator Nunn's intent is "to improve congressional oversight of broad policy issues and to reduce the micromanagement of specific line items." This could be a first and significant step toward fulfilling the Packard Commission intent in this area. For the time being, though, no agreement exists as to a revised DOD budget structure within the SASC, much less within the Congress as a whole.

Second, Congress has not yet agreed to biennial budgets. As pointed out in an accompanying paper in this monograph, the Authorization Committees may go along with the concept, but it now appears that the Appropriations Committees will not.

Finally, Congress did not agree to across-the-board milestone authorizations. For the time being, Congress appears comfortable with only an experiment. Perhaps, after the initial test, Congress may apply the concept to more programs.

All three of the above items are key elements in the Commission's overall approach to provide for program stability. Thus, while Congress has gone a long way toward implementing the Packard Commission recommendations concerning acquisition, significant open items remain on the agenda proposed by the Commission.

DOD AND DAF ACTIONS

Responding both to Administration direction before congressional action and to subsequent congressional direction, the DOD and the DAF have initiated implementation of the Packard Commission recommendations.

The Secretary of Defense has taken the following actions which affect the acquisition arena:

1. Established and filled the position of USD(A) and designated it as the Defense Acquisition Executive, the senior acquisition position in the DOD.

2. Established and filled the position of Vice-Chairman of the JCS (CJCS).

3. Designated the USD(A) and the Vice-CJCS to co-chair the DAB, as it is restructured or reoriented.

4. Prepared the first biennial defense budget for the 1988-1989 fiscal period.

5. Directed each military department to establish its SAE and PEOs.

6. Initiated planning for increased multi-year funding, milestone authorizations, baslining, etc, as required by Congress and recommended by the Commission.

7. Initiated a review of congressionally required DOD reports for potential deletion by Congress.

Pursuing implementation within the Air Force, the Secretary of the Air Force has taken the following actions: (6; 7)

1. Established the Air Force Acquisition Executive System (AFAES) to streamline the acquisition management process, intending to place responsibility and authority for program management at the lowest appropriate level and still provide adequate top-level visibility.

2. Established the position of the Assistant Secretary of the Air Force for Acquisition as the SAE and filled it with the former Assistant Secretary for Research, Development and Logistics.

3. Designated sixteen major programs as Executive Programs over which the SAE will exercise direct oversight.

4. Established the requirement for monthly "how goes it" letters to be submitted directly from Program Directors of Executive Programs to the SAE through the PEO.

5. Initiated the process of designating PEOs for all programs, with a few programs having the Commander of Air Force Systems Command (AFSC) or the Commander of Air Force Logistics Command (AFLC) as their PEO, but with most programs having various AFSC product division commanders or AFLC air logistic center commanders as a PEO.

6. Directed application of the AFAES to non-executive programs, as well as the Executive Programs, with an action plan for implementation to be developed early in calendar year 1987.

7. Consolidated a number of Air Staff functions (e.g., RD, AC and IG) with the Secretariat, while simultaneously restructuring the Secretariat to have only three Assistant Secretaries -- Acquisition, Readiness and Support, and Reserve Affairs and Manpower (Comptroller of the Air Force position moved to the Secretariat but not at Assistant Secretary level).

8. Directed a fifteen percent manpower reduction in Air Staff and Secretariat staffing, as well as a ten percent reduction in acquisition major command headquarters staffs.

9. Directed transfer of two organizations from AFSC to other major commands to streamline and focus AFSC for its acquisition role.

10. Prepared the initial biennial defense budget for the Air Force.

11. Established a candidate list of Defense Enterprise Programs.

12. Provided guidance for reducing the number of reviews required for acquisition-related decision briefings.

13. Approved a new requirements validation process which is designed to address affordability and make-or-buy decisions throughout the acquisition process and to get the operatinal commands more involved in such decisions.

SHORTFALLS IN IMPLEMENTATION

From the list of actions taken by the Congress, the DOD, and the DAF to implement Packard Commission recommendations, one can see that all are committed to improving the acquisition process. However, actions to date have a number of shortfalls when compared to what the Packard Commission intended.

First, the DAF consolidation of Air Staff functions with Secretariat functions may not satisfy the Commission's intent to streamline the reporting process for individual program managers. The Commission's final report stated that "Eliminating a layer of management by moving the functions and people of that layer to some other layer clearly will not suffice." (1:55) The Commission intended that implementation of its recommendations would reduce the overall amount of oversight to a minimal level and would significantly reduce the overall number of personnel required in the acquisition system -- both at the headquarters and at the program offices. Directed manpower reductions in Air Force headquarters staffs may result in fewer people to do some of the jobs now performed at those levels; however, it is not clear that oversight will decrease. As long as Congress and its staffs tend to drive much of the oversight activity conducted at the Secretariat and Air Staff levels, such activity will probably have to continue. In fact, it is possible that with reduced

staffs, the headquarters may require more -- not less -- information from the program offices and in a more "final package" form. Good headquarters action officers try to prepare responses to information requests using their own program knowledge so the program office can focus its attention on managing the program versus constantly answering information requests. If such action officers are the ones who are eliminated in the process of manpower reductions, that will not be better for the program offices -- or for the programs.

Second, and very closely related to the above item, the streamlined reporting route recommended by the Commission (i.e., program manager to PEO to SAE) is not likely to be implemented fully -- certainly not in actual practice. Full implementation of such a reporting chain would ignore significant layers in the military chain of command -- e.g., Chief of Staff, Air Force Board Structure, AFSC/CC (for those programs where the PEO is the product division commander), and all the layers between a program manager and his PEO. To ignore such layers would be a very imprudent thing for any ambitious program manager to do if he values his career in the Air Force. Far more important, however, ignoring such layers would deny a program manager -- and the Secretary of the Air Force -- the benefit of counsel from some very wise and knowledgeable experts in the fields of acquisition and operations in the Air Force.

Third, little is evident at this time to show meaningful reductions in additional layers of bureaucracy which have been added in the past to "fix problems." All too often in the past, when someone in the acquisition business made a mistake or just downright violated laws or ethical standards, the powers-that-be -- sometimes Congress, sometimes DOD, and sometimes the Service -- formulated new laws, directives, regulations, or review procedures in an attempt to ensure that such mistakes or violations did not recur. More layers of bureaucracy were established to ensure compliance. As a result, from the Commission's viewpoint, the system has overburdened itself with paper and bureaucracy and has actually created an environment which discourages initiative and acceptance of responsibility and reduces accountability.

The Commission favors a system which emphasizes responsibility and accountability and really fixes problems at the source, where the mistake or violation occurred -- i.e., punish the guilty not the entire system. Unless the DAF, and the DOD as a whole, takes an ax to those really unnecessary layers of bureaucracy, it will be difficult to attain many of the characteristics of successful commercial programs identified by the Packard Commission. The manpower reductions at headquarters levels, however, may be a first step in this direction. Cutting those manpower slots which are part of the unnecessary layers of bureaucratic fat, without harming the real muscle of the headquarters

discussed earlier, would clearly be consistent with the Commission's intent. Finally, as highlighted earlier, Congress has not committed to all desired budgeting changes. Failure by Congress to commit to biennial authorizations and appropriations, to widespread multi-year funding and milestone authorizations, and to an operational budget orientation/structure (versus line items) portends continuing constipation in the budgeting process and resulting program instability. As pointed out earlier, since the Air Staff and Secretariat are so deeply involved in working the planning and budgeting process and attendant issues with Congress, it may be very tough to make significant reductions in Air Staff and Secretariat manning and oversight micro-management unless Congress pares down its own demands for micro-information.

WHAT MORE CAN BE DONE

The acquisition process starts with Congress and cannot improve substantially without congressional cooperation, including major change in the adversarial attitude which exists between some members of Congress (and congressional staffers) and the DOD. Congress must be willing to leave program management details to the acquisition experts in the DOD. If Congress does not trust the DOD experts, it should pressure the Executive Branch to replace the current experts with new ones who can be trusted -- and who are competent. Congress should not pass laws which get it involved in the minutia of program acquisition. Instead, Congress should focus its attention on how national strategy and interests can be supported by congressional budget authorizations and appropriations, looking carefully at operational capability levels which support military strategies, which, in turn, support the national strategy and interests. Such a viewpoint taken by Congress would allow acquisition personnel in DOD to devote more attention to management of programs rather than responding to congressional inquiries, sitting in congressional hearings, or preparing reports to Congress. Only such a viewpoint could be expected to produce any meaningful effect on the Air Staff and Secretariat structure and how it does its business. As long as Congress insists on delving into the minutia, there will

be a need for large headquarters staffs to generate, package, and deliver it.

Just as important as, and closely related to, the need for reducing micromanagement is a strong need for more emphasis to be placed on individual responsibility and accountability. Individuals, not laws and regulations, make things happen efficiently and effectively. Individuals solve program problems. Individuals "bring programs in" within cost, on time, and within specifications. But even well-intentioned, intelligent, and competent individuals do dumb things once in a while -- particularly when they are inundated with too many guidelines, restrictions, regulations, and laws. Congress and the Administration should work from the positive side, trying to create an environment which frees the good individuals in the acquisition community, who are the overwhelming majority, to do the good job they were trained to do, while culling out the few incompetent or downright unlawful and unethical individuals -- in both government and industry -- for appropriate actions.

Finally, it is important for all of those seeking to improve the defense acquisition system to understand better the need for risk-taking in that system. Today, the United States still enjoys a technological edge in defense systems thanks to its willingness to accept and its ability to manage risks. When bound together with other national strengths, it is just that technological edge on which the

free world depends to ensure its continued freedom. Though some may deny its existence, it is the excellence of the defense acquisition system in the past to manage program risks which has enabled the West to maintain that edge. However, criticisms from Congress and other sources about the defense acquisition system, which often appear more aimed at "pointing fingers" and creating notoriety for the critics than at jointly working problems, may be causing some acquisition people to stop taking the risks required to maintain that edge. Congress and other sources, including the Press, must come to realize that risks always exist in any program and that the nation must be willing to accept reasonable risks -- sometimes very high risks, including their occasional failures -- if it is to continue enjoying its current technological edge.

That is not to say that the defense acquisition system cannot be improved. It can -- just like all things can be improved in some way or other. However, improvements -- indeed, reforms -- are and must be treated as an ongoing way of life in the field of acquisition -- not an opportunity to "point fingers." The entire acquisition community, including Congress, should participate in a more positive, cooperative way to foster such improvements, while also continuing to foster the necessary risk-taking required to keep that technological edge razor sharp.

CONCLUSION AND SUMMARY

There can be no doubt that the DAF, the DOD, and the Congress are interested in improving the defense acquisition system. Actions taken by these organizations are aimed at such improvements and have tackled many of the recommendations of the Packard Commission in this area. However, much more remains to be done to address and implement fully the major thrust of the Packard Commission, which this writer thinks was to restore a sense of trust -- if it was ever really there at all -- among the various levels involved in the defense acquisition system. Such trust must permeate the system all the way from Congress and the President to the individual program manager who must face and make the day-to-day decisions which determine the fate of a particular program. It is, perhaps, just such decisions which will ultimately determine whether the operational military forces have the weapon systems to win the next war.

As Mr. Packard stated in the foreword to the Commission's final report:

> Excellence in defense management will not and can not emerge by legislation or directive. Excellence requires the opposite -- responsibility and authority placed firmly in the hands of those at the working level, who have knowledge and enthusiasm for the tasks at hand. To accomplish this, ways must be found to restore a sense of shared purpose and mutual confidence among Congress, DOD, and industry. Each must forsake its current ways of doing business in favor of a renewed quest for excellence. (1:xii)

This writer's assessment is that important steps have indeed been taken to foster such trust; however, a large chasm still exists and must be crossed before the ongoing "quest" can be successful.

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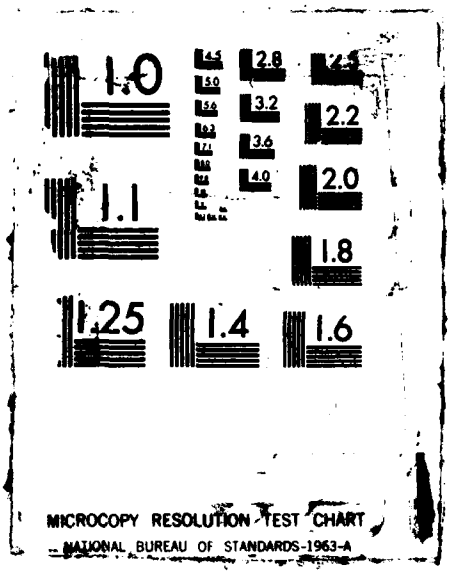
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THE PACKARD COMMISSION REPORT AND ITS INFLUENCE ON FINANCIAL MANAGEMENT

BY

Everett G. Odgers
Lieutenant Colonel, USAF

3-1

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BIOGRAPHICAL SKETCH

Lieutenant Colonel Everett G. Odgers has participated in a large spectrum of comptroller activities and issues over the last 15 years. His assignments as an accounting and finance officer, fiscal control officer, auditor, information resource manager, budget officer, and executive to both the Air Force Director of Budget and the Comptroller of the Air Force have given him a wide range of experience in financial management of Air Force activities. His assignments and involvement in numerous projects have covered every major command in the Air Force. Colonel Odgers is a graduate of the Air War College, class of 1987.

TABLE OF CONTENTS

	PAGE
BIOGRAPHICAL SKETCH	3-3
INTRODUCTION	3-5
BACKGROUND	3-6
STABILITY	3-14
Strategic Planning	3-16
Baselining	3-19
FUNDING STABILITY	3-21
Multi-Year Procurement	3-22
Congressional Authorizations	3-24
Another Recommendation	3-28
SUMMARY	3-31
LIST OF REFERENCES	3-33

THE PACKARD COMMISSION REPORT AND ITS INFLUENCE ON FINANCIAL MANAGEMENT

INTRODUCTION

On 30 June 1986, David Packard, chairman of the President's Blue Ribbon Commission on defense management (hereafter called the Packard Commission or the Commission), released the Commission's final report, the culmination of a year-long study of defense management policies and procedures. The Commission's report recommended changes in national security planning and budgeting, military organization and command, acquisition organization and procedures, and, government-industry accountability. (1:i-xxx)

The purpose of this paper is to analyze the Commission's recommendations for improving financial management in the acquisition process and to assess the impact of these recommendations on policies and procedures that are extant, including those in recent legislation. Approaching the Commission's recommendations from this viewpoint affords an opportunity to compare the Packard Commission's conclusions with on-going acquisition improvement initiatives in the Department of Defense and recent legislation such as the Goldwater-Nichols Department of Defense Reorganization Act of 1986.

This paper proposes that the Commission's recommendations contribute to improving financial management in

the acquisition process by: (1) highlighting Department of Defense initiatives in this area; (2) complementing similiar initiatives in recent legislation; and, (3) eliciting congressional support in several areas where legislation is needed to correct problems. The Commission's recommendations will not have a sweeping, revolutionary impact on the Department of Defense financial management process; rather the Commission's recommendations will be absorbed in the Department's lengthy and iterative process of improving acquisition management. In exploring this hypothesis, the Packard Commission's work in this area can be placed in proper perspective by showing that previous efforts to improve financial management in the acquisition process have reached similar conclusions.

The paper's hypothesis will be tested through a detailed discussion of the concept of program stability, a concept which encompasses several of the Commission's recommendations. Where appropriate, additional recommendations, advanced by other groups and individuals, will be discussed.

BACKGROUND

The improvement of acquisition management and financial management within the Department of Defense has been studied in numerous internal and external reviews over the past 40 years. An Armed Forces Journal extra edition in October 1985 listed 36

major Department of Defense reorganization studies between 1949 and 1985. (8:61) Not listed was the Packard Commission's study, which makes a total of 37 major studies in a span of 37 years.

This total doesn't include congressional surveys and investigations, audits, and, internal reviews such as Air Force Project 2000 (9), HQ AFSC 1990 Study (10), CORONA REQUIRE (11) and the Affordable Acquisition Approach study (15). Each study has recommended changes of one sort or another.

Suffice it to say, that, through the years, many recommendations have been made to improve the acquisition process. No one should be shocked if there is a lack of enthusiasm within the Department of Defense to embrace "new ideas" when those people who work there are frequently told there is a better way to do business.

From 1969 through 1971, while he was Deputy Secretary of Defense, David Packard changed several aspects of acquisition policy. Among his changes were decentralized management of programs, review of acquisition program status at predetermined milestones, direct reporting chains for program managers, and preparation of a cadre of experienced acquisition people to manage programs. At the time, these changes were significant and still form the basis of acquisition policy that exists today. (14:54-58; 34:33) Sixteen years later, Mr Packard reintroduced these concepts and included them in the Commission Report.

In the late '70s and into the early '80s, annual cost

growth in acquisition programs was significant. A Department of Defense official indicated that "by 1981. . . cost growth in major weapon systems programs had reached 14 percent a year." (5:20) Several factors were cited as causes of this cost growth. Among them were underestimating inflation, underfunding programs, changing cost estimates, and changing quantities/schedules. (5:21; 35:13)

In April 1981, the Deputy Secretary of Defense, Frank Carlucci, launched an attack on these problems through a series of 31 initiatives designed "to make major changes, both in acquisition philosophy and the acquisition process itself." (35:1) Known as the "Carlucci Initiatives," these changes were incorporated into defense acquisition philosophy, organization, policies and procedures.

Unfortunately, the Carlucci initiatives couldn't prevent the spares acquisition crises that erupted in fiscal year 1982. In subsequent years, the entire spares acquisition process came under intense investigation when excessive cost growth and contractor overpricing were revealed. Problems began to surface when the Air Force executed the fiscal year 1982 spares acquisition program, which for the first time in many years, funded the entire spares requirement. However, the requirement was not accurate resulting in a $874.5 million shortfall. The criticism from the Department of Defense and the Congress was immediate and harsh. The Air Force formed a study group, CORONA REQUIRE, to identify causes of the funding shortfall and recommend changes to the spares acquisition

process. (11:1-13) A year later, the spare parts "horror stories" which related tales of overpricing such as $435 hammers, $110 diodes, and $900 Allen wrenches were widely and unfairly publicized by the media, making this problem a national concern. A complete analysis of this issue and its solution is an entire study in itself. It is mentioned here because it was part of the parade of events that led to the Packard Commission being formed.

In 1983, after several years of unacceptable program cost growth, the Air Force Systems Command sponsored a study of Air Force acquisition management known as the Affordable Acquisition Approach (A^3). (15:ES-1) While the study identified several problems in the acquisition process, it singled-out the lack of program stability as a prevalent problem in acquisition management at that time. (15:ES-3, ES-7)

As a result, General Skantze, then Air Force Vice Chief of Staff, laid out a clear path of acquisition reform the Air Force intended to follow from 1984 forward. These reforms included improving program stability through use of baselining and cost-capping, increasing use of multiyear procurement, and using more realistic estimates in budgets. General Skantze indicated that, in his estimation, program stability was probably the most important aspect in controlling cost growth. (6:2-5)

In June 1983, the Senate Armed Services Committee began its study of the Department of Defense organization with a eye toward changing the structure of the Department as well as

making major changes in the joint management of Defense activities. (36:13) Ultimately, this study led to the Goldwater-Nichols Defense Reorganization Act of 1986. This act did not directly affect acquisition management; but, it did propose a change to the organizational structure of each Service that will impact acquisition management. (13:22) This Act also directed the Services to reduce the number of military and civilians on their headquarters staffs, which will decrease the number of people involved in acquisition management and financial management. (13:22) (For a more complete treatise on this subject, See Colonel William D. Smith's paper in Section 4).

In early 1985, it seemed as if everyone was reviewing some aspect of the Department of Defense, everyone, that is, except the Adminstration. Consequently, at the urging of Representative William Dickinson (R-Alabama) and Senator William E. Roth (R-Delaware), on 17 June 1986 President Reagan announced the formation of the Blue Ribbon Panel. (8:60) On 15 July 1986, the 14 members on the Blue Ribbon Panel were named, with David Packard being designated the chairman. (8:60) The charter of the Commission was issued the next day, 16 July 1986, through Executive Order 12526. The Commission's charter was as follows:

> The primary objective of the Commission shall be to study defense management policies and procedures, including the budget process, the procurement system, legislative oversight, and the organizational and operational arrangements, both formal and informal, among the Office of the Secretary of Defense, the Unified and Specified Command System, the Military

Departments, and the Congress. (2:27)

Thus, David Packard found himself in charge of a Commission directed, in part, at studying the Department of Defense's acquisition organization, policies, and procedures, many of which were based on his acquisition management changes made while he was the Deputy Secretary of Defense. (See page 3-7, this paper)

At the same time, the Department of Defense was still pursuing its own solutions to the acquisition problems with at least a modicum of success. For instance, in early 1986, William H. Taft, IV, the Deputy Secretary of Defense indicated that in 1984 and 1985 cost growth in weapon systems being acquired was less than one percent each year. (5:20) A few weeks later, Mr Taft made the following statement at the DOD-Industry Acquisition Streamlining Conference.

> While I cannot quantify how much more capable our forces are today than they would be without the management improvements and acquisition reform efforts of the past five years, I do know that those efforts, including acquisition streamlining, have made a difference. . . . In spite of the so-called procurement "horror stories," which represent a small part of the department's 52 million contracting actions each year, the acquisition system is clearly working rather well. It is working harder at self improvement than it ever has. (7:18-19)

Initially, Mr Packard partially agreed with the Defense Department's assessments, publicly stating "the system isn't broken; its working fairly well. But it should work better." (8:61) At the same time, he also indicated that things were in a worse state of disarray than they were 15 years earlier.(8:61)

A year later, Mr Packard had apparently changed his mind, for in the final report he states "All of our analyses leads us unequivocally to the conclusion that the defense acquisition system has basic problems that must be corrected. These problems are deeply entrenched and have developed over several decades from an increasingly bureaucratic and overregulated process." (1:44) It appears that over the course of the study, Mr Packard reached a conclusion that was aligned with the conclusion in the Goldwater-Nichols Act that the system was broken. (It is difficult to determine what influence political considerations may have had on the Commission's conclusions.)

Backing up for a moment, two other actions of the Commission should be noted. On 28 February 1986, the Commission issued its first interim report to the President. The report addressed national security planning and the budgeting process, and also recommended changes to streamline the acquisition organization and its procedures. (3:13-18) This report was followed by a second interim report in April 1986, "A Formula for Action," which included additional recommendations for streamlining the acquisition process. (4:15-30)

President Reagan called the Packard Commission's recommendations for streamlining acquisition management "among the most extensive reforms of the Defense establishment since World War II." (2:33) The President backed-up his words with National Security Defense Directive (NSDD) 219 which directed

the Department of Defense to implement "virtually all of the recommendations" in the Commission's interim reports. (2:27-28).

The historical discourse above sets the stage for analyzing and assessing the impact of the Commission recommendations that pertain to financial management in the acquisition process. Several important points, brought out in the background, should be kept in mind throughout the discussion because they help explain what happened, and more importantly, what may occur as time passes. The critical points are:

1. Acquisition reform in the Department of Defense occurs continuously and, is evolutionary rather than revolutionary.

2. Mr Packard has played in this arena twice now and several of his recommendations were almost identical even though 16 years elapsed between his efforts.

3. Those inside the Department of Defense did not believe the system was broken. Mr Taft indicated in his assessment of the Commission's recommendations that they were ". . . a fitting next step to the work we have already done . . ." (5:20)

With these thoughts in mind, let's move on to the analysis of program stability.

PROGRAM STABILITY

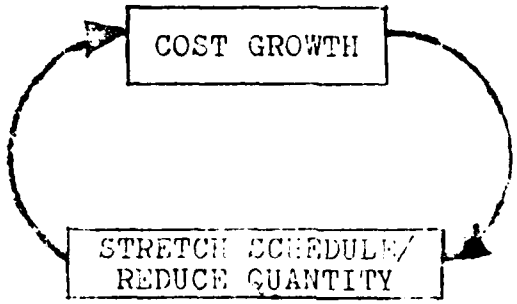
In essence, program stability comprises a balanced and steady approach to an economic acquisition of commodities or weapon systems. Among the factors that must be balanced are schedule, quantity, and funding. (36:557)

The Packard Commission was a strong advocate of program stability, noting that, ". . . impressive savings will come from eliminating the hidden costs that instability imposes." (1:xxxi) The Commission felt the most important aspect in improving acquisition management was "a stable environment of planning and funding." (1:xxii)

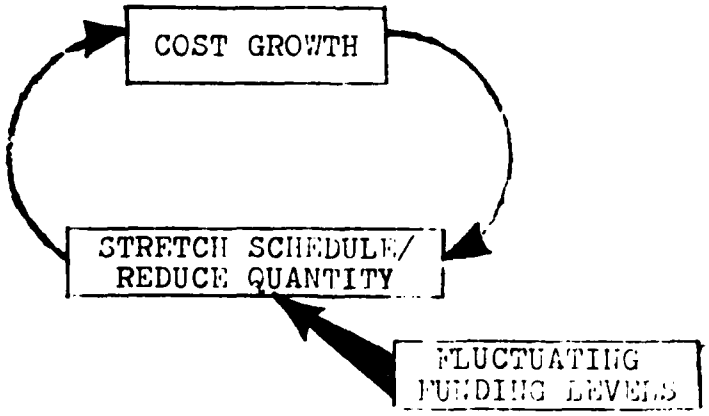
The positive aspects of program stability have been documented. For instance, one study indicated that "stability is a theme that permeates the reasons for success. . . stability in funding is essential." (16:32)

The consequences of <u>instability</u>, which include program cost growth, schedule stretch-out, reductions in quantities purchased, and loss of contractor capital investment in productivity improvement dilute the military's ability to meet national security objectives.

Program cost growth is a major contributer to schedule stretch-outs, quantity reductions and other problems. In fact, these factors are so closely linked together, a loop is created where one feeds the other in an endless cycle of program cost growth. (See diagram below) (17:6-8)



This diagram does not, however, provide a complete picture. According to the Affordable Acquisition Approach study, there were five major contributors to program cost growth present in over 50 percent of the 55 programs that were included in that study. The five major contributors were funding instability, technical complexity, technical advances, external management impact, and technical problems. A significant conclusion was that funding instability played a major role in program cost growth. In fact, it was the leading cause in 56 percent of the programs where cost growth had occurred. (15:54) With this information a new factor can be added to the diagram above. (See next page)



Funding instability was not always the leading cause of program growth. In the '60s and early '70s technical problems were the major cause of program cost growth. Unexpected double-digit inflation and the scale-down of military activity in the '70s triggered fluctuations in funding levels that persist today. (15:69)

A logical step to curbing cost growth would be to stabilize funding, a formidable, but, not impossible task. The task begins with a well-thought out acquisition plan that meets the needs of national security policy.

STABILITY - STRATEGIC PLANNING

Military power is one of the instruments of national

security policy used to achieve national objectives. To be effective, the military forces should have the perceived capability to prosecute any conflict that blocks achieving national objective. (28:31) This implies a clearly stated military strategy exists and that it is supported by a plan that details the military forces needed to execute that strategy, a matter which the Packard Commission questioned.

In their reviews of the defense acquisition process, both the Congress and Rand Corporation recognized the need for a more cohesive planning process in developing the military forces needed to support military strategy. (28:31; 36:2-12) An underlying theme in their reports was establishing a foundation for determining the force structure required to execute a military strategy. Subsequently, the Commission recommended that the President "submit to the Congress a two-year budget and the five-year plan upon which it is based." The Commission also recommended the Secretary of Defense prepare both of these estimates. By doing this, the Commission felt that acquisition programs could be planned in advance with a resultant improvement in funding stability. (1:25)

The Commission's requirement appears to be a relatively simple task for the Department of Defense because a five-year plan already exists. However, while a plan exists, only the first two years of that plan are accurate statements of requirements. The remaining three years, while meeting defense guidance and fiscal constraints, are not precise estimates of the resources needed to support the defense strategy. The

"softness" in out-year estimates occurs because accurate economic forecasts for these years are not available and the Services must rely on the administration's forecasts which may be optimistic.

Outside review of the five-year defense plan will produce two benefits. First, it should force additional realism into the plan by requiring more accurate cost estimates for new programs in the out-years. Secondly, there will be more attention, at all levels, to the financial impact of program stops and starts as well as other changes. This latter consideration addresses one of the major complaints raised by a joint working group that reviewed the Department of Defense's planning, programming, and budgeting system in the early '80s. (33:46)

Opening the five-year plan to outside review may also have a negative impact. First, exposing the five-year plan and its supporting strategy allows the congressional committees to question the validity of the strategy as well as the proposed application of resources to support that strategy. Secondly, the plan is influenced by factors that are outside the control of the Services or Department of Defense. Primary among those factors is the uncertainty about economic conditions that exist in this country and the rest of the world at any point in time. Predicting what will happen to the economy five years from now is at best a guess. Consider for a moment the price of a barrel of crude oil. This commodity has caused severe perturbations in budgeting for military operations over the

perturbations in budgeting for military operations over the last 14 years. The same holds true for many of the precious metals used in the manufacture of defense weapon systems.

In addition to economic factors, the third influence on the five-year defense plan is the threat. It can and does change. A reaction to a change could be as simple as an aircraft modification or as complex as a requirement for a complete new weapon system. Either course of action has an impact on the programs in the five-year plan.

While the Commission made the recommendation in a positive vein, the uncertainties are a concern and only time will show whether the gains from opening the five-year plan to outside review are greater than the losses.

STABILITY - BASELINING

Baselining "was pioneered a few years ago by the Air Force on the B-1B program,"(17:10) and, has become an integral part of Air Force acquisition management. Acquisition program baselines are usually established when a new system goes into full-scale development. Although considerable uncertainty exists over the feasibility of new manufacturing processes and the viability of technological advances being incorporated into the system, a reasonably accurate weapon system cost can be estimated and incorporated into the Service's budget estimate.

Theoretically, cost growth won't occur if an acquisition program stays within its baseline; however, in

reality this had not occurred in the past. Cost estimates were optimistic, and that, coupled with inflation, resulted in significant cost increases over estimated baselines. (15:ES-1) In recent years, the Air Force has improved its estimates, and real cost growth, after considering the impact of inflation, has slowed. This indicates that baselining has at least contributed to program stability.

The Packard Commission recommended that the Department of Defense "fully institutionalize 'baselining' for major weapon systems at the initiation of full-scale engineering development."(1:59) Under the Commission's concept, this baseline becomes a part of the program manager's contract with the acquisition executives in the chain of command. It provides an acquisition executive with one measure of a program manager's effectiveness in acquiring the weapon system.

The Packard Commission missed a major opportunity to further improve program stability by failing to recommend adoption of another Air Force initiative: cost capping. This concept changes the baseline cost estimate from a floor, or minimum cost, to a ceiling or maximum cost which provides definite parameters for managing the various aspects of the program baseline. (6:4) A cost cap forces trade-offs within the funds available rather than allowing changes to be added to a baseline which has no upper limit.

There also may be an additional benefit to cost-capping which accrues when presenting the program to the Congress. It appears that Congress is more willing to support a program that

has a maximum cost vis-a-vis a program that has a floor to which many items may be added. While it may only be a matter of perception or semantics, it worked well on the B-1B, and appears to have gathered support for the Advanced Medium Range Air-to-Air Missile (AMRAAM).

There are negative aspects to baselining and cost-capping, the primary one being the loss of budget flexibility. For instance, when across-the-board budget reductions occur, stabilized programs are not usually reduced because it could adversely impact on their production rates and schedules. As a result, "unprotected" programs, such as the readiness accounts, suffer larger than proportionate reductions to allow the Air Force to meet the lower funding levels. This only has to occur once before one quickly understands the impact of losing budget flexibility. (17:10)

In summary, baselining is an integral part of Air Force program management. The Packard Commission's recommendations will have little or no impact on Air Force policy and procedure in this area. Furthermore, the Commission missed an excellent management tool by overlooking the effectiveness of the Air Force's cost-capping concept.

FUNDING STABILITY

The Packard Commission made three recommendations that were designed to create more stable funding for selected Air Force programs. Each of these recommendations is discussed in

detail below.

Funding Stability - Multi-Year Procurement

First, the Packard Commission recommended that the "Department of Defense and the Congress expand use of multi-year procurement for high-priority systems." (1:59) Unfortunately, in their report, the Commission used multi-year procurement and multi-year funding interchangably. The two concepts are not the same, and should be not be confused with each other.

Multi-year procurement is a tentative commitment to purchase a stated quantity of a weapon system each year over a specified period. Funds are appropriated by the Congress to buy the first year's quantity plus the long-lead items for the remainder of the contract period. The funds for the purchases in years 2, 3, etc., must be appropriated by the Congress for each fiscal year. (18:116)

Multi-year funding on the other hand, requires Congress to appropriate sufficient funds in the first year to make the entire buy. The annual quantities, long-lead items, and other details would be determined by the Air Force. While this method provides considerable flexibility for the program manager, (19:40) it commits Congress to an entire program. Congress would not do this because it negates the opportunity to change funding levels in subsequent years.

The current form of multi-year procurement has been

around since the beginning of the decade. In 1981, Mr Frank Carlucci, then the Deputy Secretary of Defense, included increased use of multi-year procurement as one of the initiatives for improving the acquisition process. (18:112) In the Department of Defense Authorization Act for Fiscal Year 1982, Congress included legislation to implement multi-year procurement as it exists today. The Department of Defense has not, however, made extensive use of multi-year procurement during the intervening years.

At least two reasons exist for this limited use of multi-year procurement: lack of congressional commitment and lack of budget flexibility.

When Congress authorizes a multi-year procurement, it makes a long-term commitment that encumbers not only the current Congress, but, also those that follow. This is politically unpalatable.

When the Congress and the Department of Defense agree to a multi-year procurement, a portion of the Department of Defense budget is "off-limits." In short, flexibility is lost, which is one reason the Services are not enthusiastic about multi-year procurement. (See discussion about flexibility above). Before making the decision to use multi-year procurement, the loss of flexibility must be weighed against the savings that are projected.

Congress supported the Packard Commission's recommendation to increase use of multi-year procurement by directing the Department of Defense to earmark not less than 10

percent of its total procurement funds in fiscal year 1988 and subsequent years for multi-year procurements. (12:499)

This could translate into a significant amount of Air Force procurement funding if the Department of Defense requests each Service to share the burden proportionately. For instance, in fiscal year 1987, the Department of Defense goal would be $8 billion. The Air Force "share" of this would be approximately $3.2 billion,a little less than 10 percent of its $33.2 billion procurement funding. (These calculations do not include funding for Defense Agencies or Guard and Reserve equipment).

While multi-year procurement may not be a new concept, the Packard Commission's recommendations have reignited Congressional interest and increased its commitment to the program. The impact of the new legislation will depend to some extent upon which Air Force programs the Department of Defense selects to put under the multi-year procurement umbrella.

Funding Stability - Congressional Authorizations

The second recommendation the Packard Commission made to improve funding stability was for the Congressional Armed Services Committees to review and authorize new defense system acquisitions at "key milestones--specifically at the beginning of full-scale development and at the start of high-rate production." (1:29) This recommendation was a spin-off from a

similar one that was included in the 1985 Senate Armed Services Committee report on their study of the defense organization. (36:599)

Congressional support for this recommendaton was strong and positive. Although limited to a few select programs (to be designated by the Services and Department of Defense), the authorization committees' agreement to test the procedure is an important step toward stabilizing defense acquisition programs. (12:495) Unfortunately, the support of the authorization committees does not guarantee funding support from the appropriation committees, a matter to be discussed further in a later section on biennial budgeting.

Coupling this authorization concept with multi-year procurement in the production phase, would provide the Services with a reasonably stable acquisition program from full-scale development through production. This assumes that sufficient annual appropriations could be obtained.

Funding Stability - Biennial Budgeting

The third recommendation the Packard Commission made to improve funding stability calls for the Congress and the Department of Defense to adopt a biennial budget beginning in fiscal year 1988. The Commission's recommendation followed the course previously charted by the Congress in the 1986 National Defense Authorization Act.

In 1982, a member of Congress recommended use of two year budgets as a means to improve overall financial management in the Services. (20:5-11) In 1985, the National Defense Authorization Act of 1986 legislated this concept and directed the Department of Defense to submit a two-year budget for fiscal years 1988 and 1989, and subsequently, in two-year intervals. (21:484)

The Packard Commission (and others) believed that two-year budgets could accomplish three things. First, two-year appropriations would improve program and operational stability as well as lower costs because of extended contractual periods. When a contractor can plan for extended periods of performance, start and stop costs decrease, economical quantities of supplies can be purchased and stability is added to the workforce.

The second advantage lies in the additional time available to each Service to "review and evaluate" the results of budget execution, something that is not done very well in today's Air Force. The third advantage is the extra time Congress would have to "review and evaluate" the results of the prior budgets and review the current request. (1:25) The latter benefit should reduce some of the turmoil now experienced at the end of each fiscal year as the Congress rushes to pass appropriations for the coming fiscal year.

The literature indicates there are two opposing views of the biennial budgeting issue in Congress. Leading the

charge in the "pro-camp" are the authorization committees who directed the submission of the two-year budget request. The Senate Committee on Armed Services Authorization Bill for fiscal year 1987 reiterated their interest in a two-year budget. (23:293)

Others also support "the authorizers" position. The Department of Defense, long a supporter of this concept, welcomed the direction in the fiscal year 1986 Authorization Act and the Packard Commission's report. (7:22) In fact, the Services were already putting together the first two-year budget when the Packard Commission's recommendations arrived. Several Washington D.C. area "think tanks" also voted in favor of the biennial budget. (24:32-33; 25:78-79; 26:14-15).

On the other side, the appropriation committees are the strong voice of dissent. Their reaction and reasons for dissent are documented in Lieutenant Colonel Dennis Markisello's research project. (See Section I) In essence, their main arguments focus on the unpredicatability of economic conditions, the need to make adjustments in the second year of the budget, and the reluctance to hold the Congress "hostage" for more than one year at a time.

Senator Orrin Hatch, Republican of Utah, noted additional problems that could arise if Congress did apppropriate a two-year budget. He refers to the cause of these problems as the "supplemental weapon," a tool that includes congressional perogatives such as withholding funds,

adding restrictive language to limit use of funds, and use of conditional restrictions (i.e, first A, then B). However, even with these potential limitations, Senator Hatch favored biennial budgeting. (37:39)

In summary, the Packard Commission made three recommendations aimed at improving funding stability in the acquisition process. Two of these--increasing use of multi-year procurement and adopting biennial budgeting--were already in being, or, in the case of biennial budgeting, in the process of being introduced. The last recommendation, authorizing programs at specific identifiable milestones involves adapting a Department of Defense management process to the congressional authorization process. It is doubtful this recommendation will be tested until a system of major national importance can be found, one that Congress is willing to authorize for a long period of time. In essence, the Packard Commission chose a safe path that emphasized concepts and programs that already existed.

Funding Stability - Another Recommendation

Although the Commission did advocate long-term funding commitments such as multi-year procurement and biennial budgeting as a means to promote funding stability, it did not advocate adopting capital budgeting as a technique for managing government expenditures. A change to capital budgeting would

be a "bold step," one that this author considers worth pursuing.

In the government, capital budgeting has a different connotation than it does in the private business world. Under this concept in the government, current operations are financed from current revenues, and capital investments, which are expenditures for long-lived assets, are financed primarily by borrowing. Theoretically, the government would only create debt when it wanted to purchase a capital asset such as a building, a ship, an airplane, or a highway.

Two separate budgets are required when using this concept: One is for current operations and one is for capital investments. Annually, over the estimated life of the capital investment, there is a charge to the current operations budget which pays the debt incurred to acquire a capital investment. (30:32)

Proponents of capital budgeting see it as a means to accomplish several things:

(1) Bring capital investment spending under control by focusing more attention on the amount of debt that is incurred to procure each item. (30:32)

(2) Help in planning for future maintenance and repair costs, development, and financing making it somewhat easier to estimate the revenue needed each year to balance the current operating budget. (30:32)

(3) Improve cost-benefit analysis because it would be

necessary to get the correct amount of money needed for the entire programs in the beginning (30:32), and

(4) "Lead to improved project evaluation and management" (13:43)

The opponents of capital budgeting recognize all of the positive aspects of the process; but, unanimously assert that the pluses exist in theory only. The opponents fear capital budgeting would destroy the fiscal responsibility and boundaries created by the current cash budget. In their opinion, politicians are precluded from overspending today because of the constraints imposed by the revenues collected each year. The opponents believe that under capital budgeting, politicians would attempt to classify many pet projects as capital investments, meaning that each would be financed by borrowing and someone else would have to pay the bill. (13:43-44, 30:32, 31:50) According to the opponents arguments, the capital budget would become a new and uncontrolled form of off-budget spending. (30:32)

At this time, those opposed to capital budgeting are in control of the situation; yet, their argument that capital budgeting would unleash rampant, uncontrolled spending is somewhat inconsistent. Congress could control the amount of capital investment each year by legislating a debt ceiling. Additional control could be exercised by legislating a requirement to balance the operating budget each year. Since a large portion of the current budget would be used to pay the

debt burden, taxpayers would quickly understand why their taxes were increasing. In my opinion, capital budgeting provides more opportunity for control than the system used today.

Capital budgeting could provide greater funding stability in acquisition programs than what is achieved today through the "band-aid" approach of using various piecemeal initiatives.

SUMMARY

While the Packard Commission's recommendations will not result in "sweeping change" or "bold steps forward," they provided legitimacy and impetus to several program stability improvements the Department of Defense and others have been working on for several years. Additionally, the Congress has noted the Commission's efforts and taken action in the authorization committees to improve program stability. These are major accomplishments.

Of all the Commission recommendations discussed in this paper, those suggesting the authorization of programs at major milestones and biennial budgeting could have the most impact on improving program stability. Both Armed Services' Committees have already agreed to test the authorization process on a few selected defense acquisition programs. These same committees have also expressed support for the biennial budget process. Full exploitation of either of these initiatives would markedly

improve program stability.

The Commission missed a golden opportunity when it did not recommend widest-possible use of cost-capping. This concept forces discipline upon the acquisition process at the management level and discourages changes in requirements. The end result: less cost growth and schedule slippage.

Capital budgeting is worthy of further analysis and discussion. There is sufficient interest in the concept to foster the changes necessary to incrementally implement capital budgeting.

The Commission's recommendations are being integrated into the Defense acquisition system. Bureaucracies are loathe to change and tend to move from one position to the next with glacial speed. The reluctance that a large organization has to change is expressed best by Peters and Waterman in their book "In Search of Excellence."

> . . . When trouble lurks, we call for a new strategy and probably reorganize. And when we reorganize, we usually stop at rearranging the boxes on the chart. The odds are high that nothing much will change. We will have chaos, even useful chaos for a while, but eventually the old culture will prevail. Old habit patterns persist. (32:3)

This prediction cannot be entirely true because several changes have occurred while this paper was being written and more are scheduled. The Commission's efforts did create "useful chaos" and the changes will be absorbed through a controlled, step-by-step process.

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THE PACKARD COMMISSION AND THE SYSTEM PROGRAM OFFICE

by

William D. Smith
Colonel, USAF

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BIOGRAPHICAL SKETCH

Colonel William D. Smith has been associated with Air Force Systems Command (AFSC) since 1971 and has been active in both flying organizations and system program offices. Besides his flying experience in AFSC, he has flown in MAC, PACAF, and SAC as well as having maintenance assignments in AFSC and SAC. Colonel Smith is an experienced acquisition manager having held Directorate positions in the AWACS program office as well as being a Systems Program Office (SPO) director at the Aeronautical Systems Division of AFSC. Colonel Smith is a graduate of the Air War College, class of 1987.

TABLE OF CONTENTS

CHAPTER		PAGE
	BIOGRAPHICAL SKETCH	4-3
I	INTRODUCTION	4-5
II	CLEAR COMMANDS	4-6
III	THE PROGRAM EXECUTIVE OFFICER	4-16
IV	REQUIREMENTS STABILITY	4-20
V	CONCLUSION	4-27
	LIST OF REFERENCES	4-30

INTRODUCTION

This paper examines what the Air Force has done to implement three recommendations made by the President's Blue Ribbon Commission on Defense Management (hereafter called the Commission Report). The Commission Report dated June 1986 is used as the basic reference throughout this paper.

In discussing the Commission Report, I will take the view of the System Program Office (SPO). The general method of evaluating recommended actions will be a five step process; i.e., (1) what is the current mode of operation, (2) what did the Commission Report recommend, (3) what has been done, (4) what effect do those actions have on the SPO, and (5) is there a better way to implement the recommendation. Consider two constraints when reading this paper. First, at the time this paper is being written, actions to implement the Commission Report and associated Goldwater/Nichols legislation within the Air Force are not complete. Second, because all SPOs differ greatly in organization and grade structure, I will use a "generic" SPO organization that represents a middle road between a super SPO and a basket SPO. Thus, recommendations for future action may have to be modified depending what kind of SPO to which the recommendations are applied.

The measure of merit used will be SPO effectiveness. One must assume that the intent of the Commission Report is to make

things more effective at the operating level. As the Commission Report notes:

> The Commission's recommendations, if fully implemented, will help create an environment in which each DOD component can achieve even higher standards of performance by summoning forth the enthusiasm and dedication of every man and woman involved in accomplishing the mission. (3:XII)

Three specific Commission Report areas of interest will be examined: (a) clear command channels, (b) designation of the Program Executive Officer (PEO), and (c) stability of requirements. While many other recommendations are included in the report, these three appear to have generated the most activity and, with proper execution, can have a significant effect on how well a SPO is managed.

CLEAR COMMAND CHANNELS

The first area to be discussed is that of clear command channels. In the current system, a program manager (PM) is assigned to manage a SPO. Depending on the importance (i.e., risk, visibility, cost, etc.) of the SPO's product, a reporting chain is set up that can reach as high as the Secretary of Defense. In our "generic" SPO however, the chain of command will run from the PM through the Product Division commander to the Air Force Systems Command Commander (AFSC/CC). (Figure 1)

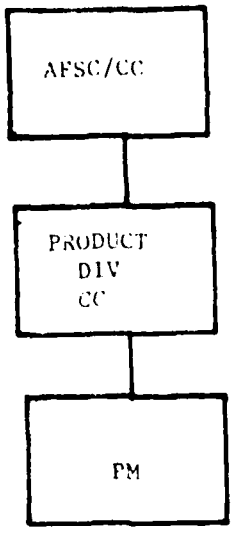

Figure 1

This organization appears straight forward. However, when one overlays the other players in the process, it becomes much more complex. (Figure 2)

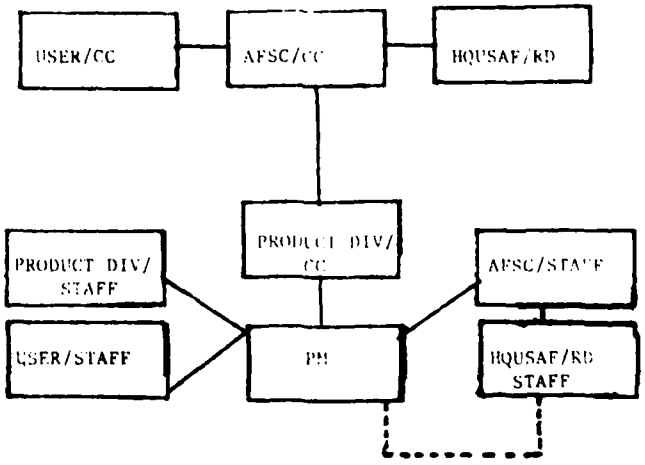

Figure 2

In fact, a PM is heavily involved in intense coordination to get anything done and to ensure he gets and maintains support from all the other players on the periphery. Inputs to his program can come from a number of different levels and directions--often at the same time and sometimes in conflict with each other. A considerable amount of time is spent explaining actions or lack of actions and resolving conflicts that have little to do with execution of the program. As players change in each of the various agencies that affect a program, the process of orientation and balancing points of view occur repeatedly.

The current system can be difficult and is frequently cumbersome. It contains numerous layers each with their own constraints. However, it retains a direct command chain based on the military chain of command. Outsiders may influence a PM, but his immediate boss is the Product Division Commander.

The Commission Report recognizes the complexity of the current system and has suggested streamlining the chain of command and reducing the number of influential players. The Commission notes:

> It is fundamental that we establish unambigious authority for overall acquisition policy, clear accountability for acquisition execution, and plain lines of command for those with program management responsibilities. (3:54)

In establishing these clear lines of responsibility, the

Commission has recommended additional appointments and/or designations within the system.

The additional appointments include an Under Secretary of Defense (Acquisition) to "supervise the performance of the entire acquisition system and set overall policy for R & D, procurement, logistics and testing."(3:53) Called the Defense Acquisition Executive (DAE), he has total responsibility for all DOD acquisition activities and reports to the Secretary of Defense. Each service would appoint a comparable Service Assistant Secretary (called the Service Acquisition Executive or SAE) whose job would be to administer "service acquisition programs under policy guidance from the Defense Acquisition Executive." (3:54) These two new positions would comprise the top levels of (3:54) a new acquisition chain of command and, theoretically, cut out unwanted indirect influences.

Besides the added new appointments, selected individuals already within the system would be designated as Program Executive Officers (PEO). Their function would be like group general managers in industry responsible for a reasonable and defined number of acquisition programs. The acquisition chain of command would end at the PM who would report up the chain for program purposes. The "system" would therefore be structured as follows: (3:54) (Figure 3)

PACKARD COMMISSION CHAIN OF COMMAND

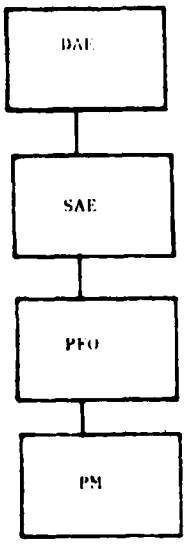

Figure 3

The Commission recognizes the purity of such a system when it states that PMs:

> should be responsible directly to their respective PEO and, on program matters, report only to him. In other words, every major program should be set up as a center of excellence and managed with modern techniques. The Defense Acquisition Executive should insure that no additional layers are inserted into this program chain of command. (3:54)

Unfortunately, the purity of the system conflicts with the traditional chain of command and, as such, could make matters worse rather than better.

As stated earlier, the current system is complex, often confusing, and at times, inept. However, the addition of another system is not likely to clean up the current system unless portions of the current system are dismantled. It

appears that Commission recommendations have put additional players into an already confused situation.

The Air Force will initiate a system which it calls the Air Force Acquisition Executive System (AFAES). According to internal documentation, the AFAES is "a management system which applies to all acquisitions and is designed to improve the process of developing and procuring quality weapon systems. (1:1) The AFAES follows the dictates of the Commission Report and outlines the various levels of program authority, i.e., SAE, PEO, PM. It designates the Assistant Secretary of the Air Force for Acquisition (formally Research, Development and Logistics [SAF/AL]) as the SAE and provides for PEO's at varying levels depending on program stature. It also outlines, in broad terms, the responsibilities of each level in the acquisition chain. What it does not do, perhaps on purpose, is define how the system will interact with the system that is already in place. (1:1-4)

Attempts will be made to limit the interference of "interested parties" and to reduce the number of briefings a PM must present enroute to get to the DAE. However, this begs the question; if all those briefings were not needed before why not get rid of the agencies that had to have them? Does this mean that staff review of programs is unnecessary, or that the staff agencies should participate unprepared in briefings given at high levels? That is doubtful. What will happen, I believe,

will be no change in the current situation. All the players will be involved and will still need information.

The result of this is in reality a "system" designed to work around two chains of command that do not naturally overlay. If we go back to the desired chains of command, in their simplest form, it is obvious we have a mismatch. (Figure 4)

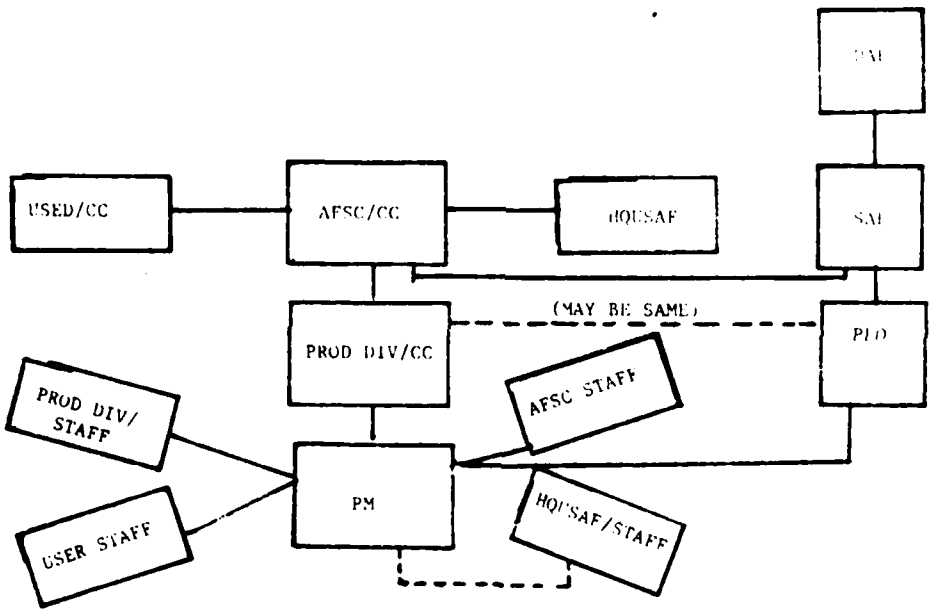

Figure 4

For nonprogram matters, a PM is responsible to the AF chain of command. For program matters, a PM is responsible to the reporting chain established by the Packard Commission.

Unfortunately, most of what a PM does is programatic. Yet he is directed to use a reporting chain outside his military chain

of command. Since a PM's loyalty is on the military side for a number of valid reasons (not the least of which is the fact that his effeciency report is written by the military), the PM will attempt to satisfy both chains. Doing so will increase not decrease the PM's work load--just the opposite of the Commission's intent.

There is also concern about the stability of direction within each chain. The military tends to be rather stable with clear lines of accountability established. This is not always so with the civilian reporting chain. Presidential appointees frequently have short tenure. Their early departure may result in vacancies which exist for long periods of time. This could adversely affect the management of a program when there are long periods with nobody at the top to provide direction. This can be especially confusing with changes in both people and philosophy due to changes in a political administration.

A final compounding factor involves the movement of HQ USAF/RD from the Air Force Chief's staff to the SAF staff. With SAF/AL still retaining staff oversight separate from that of HQ USAF/RD, a level of bureaucracy that appeared to disappear may in fact remain. There is no indication that the way of doing business will have changed in any way and an effective PM will still feel the need to keep all players involved.

For the PM the new organization makes little difference at

best. At worst, it compounds the problem considerably by adding new players who feel obligated to be involved. A PM and most likely a PEO is put in an unenviable position of having to arbitrate between two reporting chains.

It is important to examine solutions to these potential problems. The Air Force has a system in place to do the acquisition task and, in fact, has two major commands (military organizations) that specialize in that task. The Commission Report does not adequately acknowledge the unique military aspect of systems acquisition in its attempt to make the military system resemble that of civilian industry. Barring any thrust to "civilianize" completely the acquisition process, these attempts to make the military system fit the mold of civilian industry may be in error. An alternate and better way to approach the problem may be to work within the established military structure and streamline the system from the inside. It seems counter-productive to add additional layers that conflict with a clearly understood chain of command.

There are ways to work within the established military structure and still have the same results desired by the Commission. The proposal below clarifies the chain of command rather than gutting it but still recognizes the realities of Goldwater-Nicholes and the intent of Packard. (Figure 5)

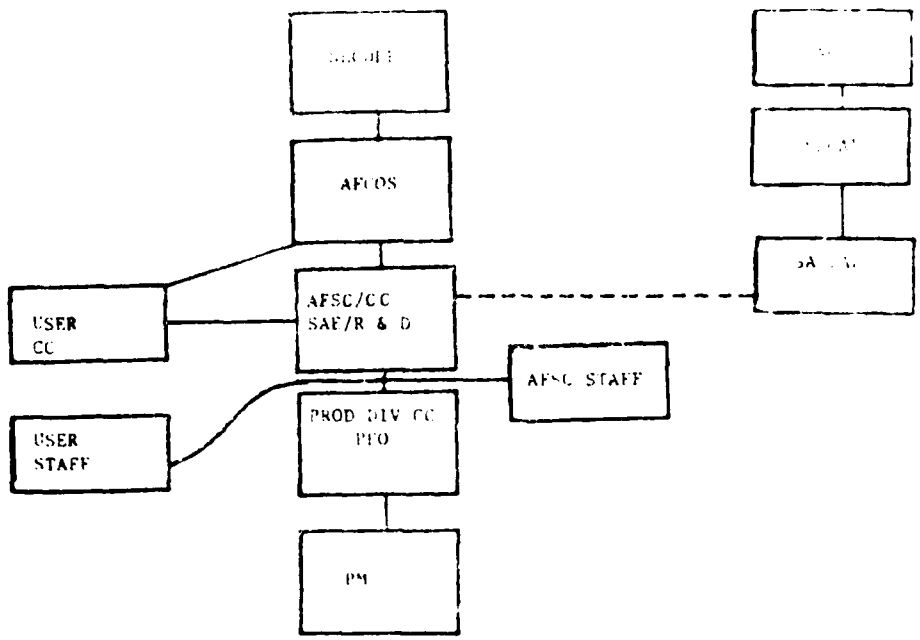

Figure 5

As depicted, this system would strengthen the chain of command within the existing structure and place the SAF side of the house in an oversight role. It would eliminate much of the current USAF/RD structure by placing its functions in the operating commands. The SAF and his functional offices would retain oversight with staffs sized according to their roles. SAF/AL would be out of the program execution business but would retain the responsibility to work issues directly related to budget and Congress. AFSC (and AFLC concurrently) would expand to take up many of the roles now held by USAF/RD. Inputs into the process from the users would be made at the inter-command level. The AFSC commander would, in effect, become the equivalent of the SAE for R & D which recognizes that AFSC and AFLC do business differently and need policy set at command levels rather than at HQ USAF levels.

This proposed system could make the acquisition process function smoother than it currently does. It clearly identifies the players who can affect the program and it clearly delineates what is command and what is oversight. It allows input but controls the level of input and, when combined with other measures already promulgated (e.g., baselining IAW DOD Directive 5000.45) keeps the program on a steady track by using the inertia of the bureauracy to inhibit changes in the baseline. Finally, it clearly assigns responsibility by holding the PEO and PM accountable for program execution. For the PM, it is a much "cleaner" system within which to work and clearly has the advantage of reducing the number of individuals/agencies directly in contact with his program.

THE PROGRAM EXECUTIVE OFFICER (PEO)

The placement of the PEO is critical. The PEO essentially acts as a bridge between the policy makers and those tasked with program execution. His is a key role, especially where it relates to the PM. Improper placement could find the PM in the unenviable position of residing under the command of a Product Division Commander while reporting his program around that same Product Division Commander.

As noted earlier, the Commission Report recommends a structure that puts policy making at the top and operations at the bottom. (Figure 6)

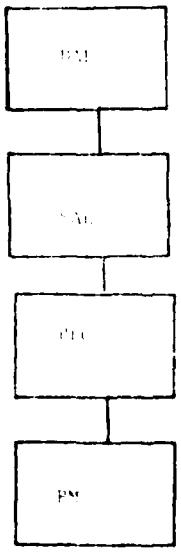

Figure 6

The further away from the DAE one gets, the more interest there is in program execution and less in broad policy. The operating level is the PM with the PEO bridging the gap between operations and policy. The PEO, according to the Commission Report, functions as a corporate group general manager overseeing a number of programs within a specified expertise and reports up the chain to the equivalent of a Chief Executive Officer (CEO)--the SAE. A key question, is where to put the PEO?

In his 16 September 1986 letter to the Secretary of the Air Force, SAF/AL, outlined the responsibilities of the PEO as follows:

> The Program Executive Officer is responsible for implementing the guidance and direction of the AFAE (Air Force Acquisition Executive) on Executive Programs. For Executive Programs in AFSC, PEO's will normally be Product Division Commanders although other individuals including the AFSC Commander may be designated as PEO. (1:2)

Thus, for executive level programs, the PEO could be one of seven AFSC Product Division Commanders, the AFSC Commander or a higher level in the official bureaucracy.

Before examining the proper placement of the PEO, it is beneficial to look at the current system to see if there is an equivalent individual within the structure. Where that individual resides depends greatly on the level of the program. Most "lower level" programs are routinely reviewed by the Product Division Commander, others by the AFSC Commander. High visibility programs may go to the SECAF or to the SECDEF. These reviews are fairly well structured to provide cost, performance, schedule and logistics information. There is a tendency, as those reviews work their way up the chain, to redefine or correct problems so that by the time the briefing reaches its final destination, most of a PM's problems no longer exist. This process is clearly not the intent of the PEO structure.

In essence, the PEO function, as designed by the Commission Report, does not exist much above the Product Division Commanders level. It is within the Product Division itself

that most of the discussion on how to address problems takes place since no Division wants to "air its dirty laundry" outside its own bureaucracy unless absolutely necessary. This is proper and allows a Product Division to manage its problems rather than having a solution dictated from above.

It appears at this time that PEO authority will be placed at the Product Division Commanders' level for all but the most major programs--the National Aerospace Plane, for example. That decision is in consonance with the intent of the Commission Report. When coupled with a reasonable approach to the PM to DAE reporting chain, it should enhance the PM's ability to operate. The PM's chain of command is clear--he reports to his Product Division Commander. The Product Division Commander, under the system outlined by the Commission, may have some difficulty with the designated chain of command, however, he should be more prepared to handle that than the PM.

The PEO structure as it appears to be taking shape is good for the PM. It gives him a clear chain of command and puts the Product Division Commander, acting as PEO, in the bridge position that was intended. It also lets AFSC/CC work issues that are commensurate with CEO equivalent status. As Peter F. Drucker notes:

> The chief executive thinks through the business

the company is in. He develops and states overall objectives. He makes the basic decisions needed to reach these objectives. He communicates the objectives and the decisions to his management people. He educates these managers in seeing the business as a whole and helps them to develop their own objectives from those of the business. He measures performance and results against the objectives. He reviews and revises objectives as conditions demand.

The chief executive makes the decisions on senior management personnel. He also makes sure that future managers are being developed all down the line. He makes the basic decisions on company organization. It is his job to know what questions to ask of his managers and to make sure they understand what the questions mean. He coordinates product businesses within the company and the various functional managers. He arbitrates conflicts within the group and either prevents or settles personality clashes.

Like the captain of a ship, he takes personal command in an emergency. (2:162)

REQUIREMENTS STABILITY

The final area of interest in this paper is that of requirements stability. The Commission Report notes in its summary report that the DOD. . .

> . . . should make much greater use of components, systems and services available off the shelf. It should develop new or custom-made items only when it has been established that those readily available are clearly inadequate to meet military requirements. (3:60)

The Commission Report further notes that:

> problems with the present defense acquisition system begin with the establishment of approved military requirements for a new weapon, a step that occurs before development starts. Two common methods exist for establishing the need for a new system--"user pull" and "technology push." Both methods are unsatisfactory."(3:45)

The Commission Report goes on to explain how both methods

result in gold plating. The Commission believes there is a better way and they provide some general guidelines on how to get there, not by specifically stating what to do but, by stating what not to do. These include such areas as when the military departments:

- overstate the threat (leads to gold plating)
- specify systems (leads to over-specification)
- insist on fixed priced contracts (fixed price mania)
- overreact to special interests (the-ilities)
- market the system (inside and outside the service)

Concentration on these areas by the military departments may lead to systems unresponsive to original needs because of lack of proper balance.

The Commission's bottom line is that we don't do a good job of understanding what we want to achieve and do an even worse job of expressing it.

The Commission, while having, in its own words, a rather "stark" view of the requirements process, does not miss the mark by much. The question is, "what is the Air Force doing about it?" There are indications of solid progress.

A new proposal to streamline, simplify and strengthen the requirements process was briefed to the Air Force Commanders at

the Fall 86 CORONA. Through a series of structrual and procedural changes, the new process, if properly implemented, could go a long way towards meeting the intent of the Commission and merging user pull/technology push into a single requirements definition process.

The new process is designed to address fallacies in our current system. First, the current process takes too long. There are too many players involved early on in the Statement of Need (SON) development when problem definition is a problem in itself. Solutions to undefined problem only complicate things. The new system addresses the fact that initial requirements are too system specific, are too solution oriented, do not provide room for trades and do not allow interaction as both the developer and user become more knowledgeable. (6:3)

The current statement of need (SON) validation procedure is revised under the new system and a new structure is imposed into the validation process at a later date. Graphically depicted, the two systems are as follows: (Figure 7)

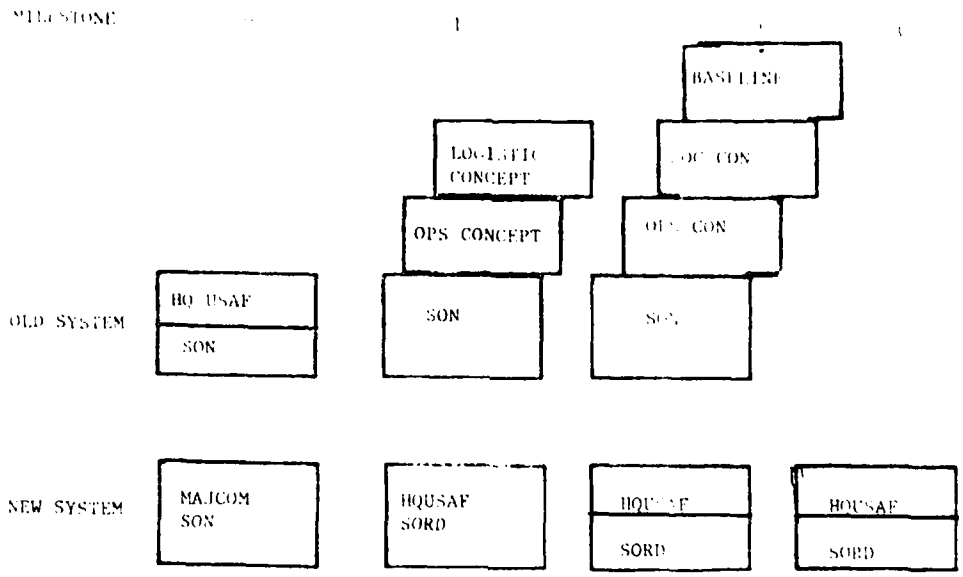

Figure 7

Two things become immediately evident. First, initial concept exploration (milestone Ø) is done with a SON from the using command and does not require HQ USAF approval. It does, however, require the sponsoring MAJCOM to support the money for the "new start" in the POM process. Second, a SON in post milestone Ø validation becomes a SORD (Systems Operational Requirement Document) which is a product of an Air Staff headed requirements review group (RRG). This group examines the requirement and the progress of work done in concept exploration to determine the program's viability.

According to the new plan, a SON should focus on the basic mission need and not propose a solution. The initial SON is limited in length to five pages to "discourage specifying

'requirements' that are better left to trade off studies and more detailed analysis."(6:Text 4) Further, the new process requires that the initial SON not rule out modifications to existing systems as a means of meeting the need. In doing the above and, by delegating the SON validation to the MAJCOM, it is hoped that SON validation can take as little as 180 days vice the current 400 days. In special cases, SON validation would be retained at HQ USAF but only for reasons outside a single MAJCOM, control, e.g., a joint program, or a program of high national interest. (6:Text 4)

To establish a clear audit trail between what was designed and what was finally built, a requirements correlation matrix (RCM) will be established. This RCM will be part of the initial SON process and compare what was designed with what was specified. It will also define the test criteria to ensure testing reflects the current thinking on system performance. Initially, the RCM will be somewhat loose in all parameters. However, as both user and developer become more knowledgeable and are able to make tradeoffs the RCM will become more specific. Prior to each major milestone, the RCM will be updated with the most current data. Figuratively, the RCM resembles a triangle: (Figure 8)

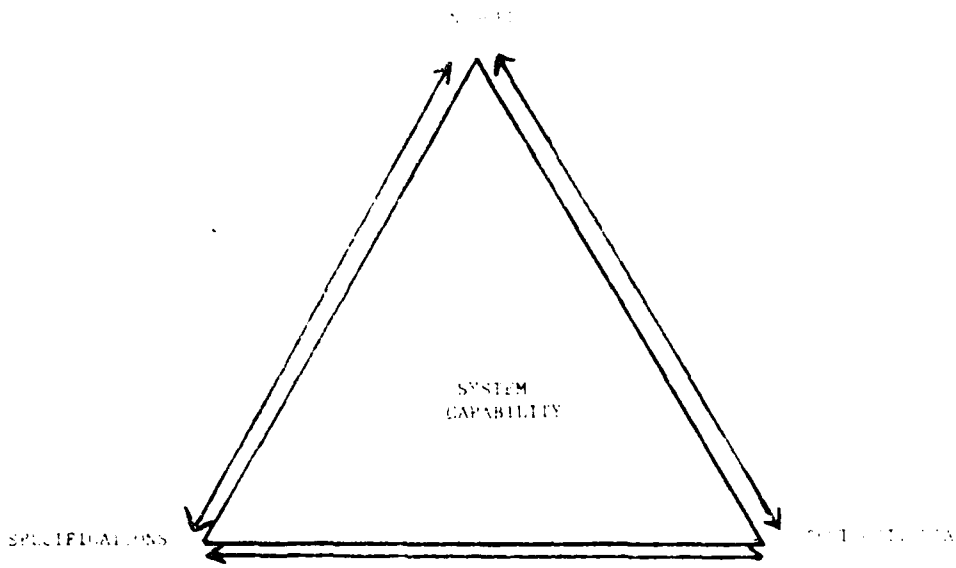

Figure 8

More than anything else, the RCM process forces decision points where designed system capabilities can be weighed against developed capabilities and documented decisions can be made as to the system's evolution. And, the test criteria can be adjusted to meet the current definition of need--something that is not done now.

Based on the new SON/SORD process and the RCM process, the traditional milestone 0 to milestone III system looks a bit different. (Figure 9)

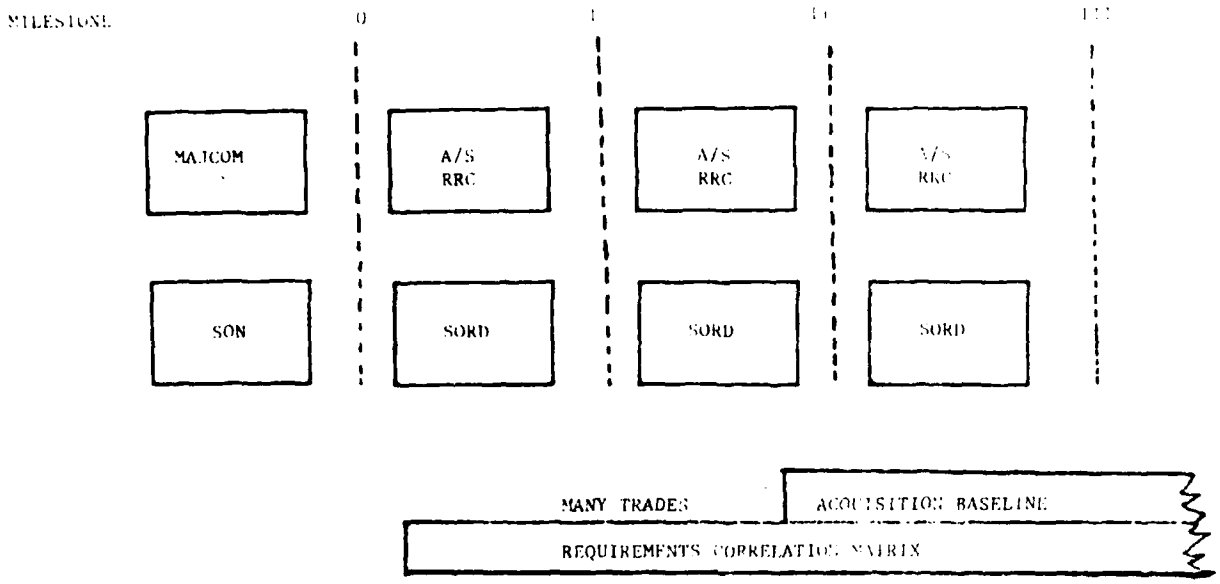

Figure 9

For both the SPO and the user, the new process has many advantages. In the first place, it allows the commands to quickly get into the acquisition system those programs that they strongly support--a savings of as much as 300 days simply by knocking out Air Staff validation. And, it allows the user and developer to work the problem early on without the formality of Air Staff review. Further, prior to definitization of the program at the first writing of a SORD, it gives both the user and developer time to examine what is possible within the constraints of dollars and time. For the developer, the new process gives room to look at the need without being constrained to preconceived solutions and

basically frees up the front end of the process to more ingenious solutions--a benefit to all.

Of course, the new process will also require more user participation up front even when the new requirement is being driven by technology push. A firm operational requirement prior to milestone Ø will have to serve as a baseline for future trades as the requirement matures. The user will have to support their new starts in the budget process since many new starts will have no champion on the Air Staff.

Finally, for all involved in the process, the new system will ensure a detailed audit trail such that decisions and rationale for decisions can be traced back to refined requirements and/or technology drivers. This has significant impact as one attempts to understand, with hindsight, why the system turned out the way it did. At least with the RMC, one can go back and discover the answer. Better yet, with the RCM process, firm decisions based on tradeoffs can be made and a program judged by answering the question "am I willing to pay this much for that capability?"

CONCLUSION

This paper has reviewed three actions taken by the Air Force in response to the President's Blue Ribbon Commission on Defense Management. While many actions are underway as a result of the

Commission's work and the impact of the Goldwater/Nichols Bill, the three actions chosen appear furtherest along and seem to have most impact on the acquisition process. The bottom line question one must ask is, "are we better off post-Packard Commission than pre-Packard Commission?" The answers are mixed. During the preparation for this paper, many articles, books and interview notes were used. What became evident as all this was interpretated was the fact that there are two main interest groups involved in the Packard Commission process. The "outside" group--i.e., those not directly involved with the Pentagon's acquisition system,--believe that the defense acquisition process is flawed and needs reform. They wrote the Commision Report and sponsored such legislation as Goldwater/Nichols. The other group, the "insiders," are involved in the process and they believe the system is basically sound and does not need major or, in some cases, even minor overhaul.

After writing the report and authoring the legislation, the "outisders " gave the task of fixing the system for the "insiders." The result is certainly predictable. The "insiders" have made it a point to cut their losses as much as possible.

However, out of this minimal effort some good has come. Clearly, the best structural thing to come out of the Commission's emphasis on defense acquisition is the

introduction of the new requirements definition process. This single change can have a great impact on how the user and developer get on with the business defining, building and, fielding systems. If not diluted in substance, these changes can make a significant impact.

Overall, the grade for the Air Force's attempts to implement the Commission Report depends on your point of view. For persons seriously bent on reform and interested in substantive reform the grade has to be poor.

However, for those "insiders" who make up the majority of the people involved in executing the reforms, the grade is A+. Considering the anomalies the Commission Report and Goldwater/Nichols created what was really useful has been extracted and put in place. Where that was not possible, the job of damage limitation has been well handled.

For the SPO director, the overall effect appears neutral. He will have direct access to the DAE through the newly established chain but, the value of that direct access is questionable. He will still need to keep those currently in the loop a part of the process. A PM will gain in the requirements definition process over past practices and that, probably more than anything else, can set the stage for truely revolutionizing how we buy our systems.

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DEFENSE ACQUISITION IN A.D. 2007--A PRESCRIPTIVE HISTORY

(BEYOND THE PACKARD COMMISSION REPORT)

by

Brian L. Kessler
Lieutenant Colonel, USAF

and

Charles M. Swager
Lieutenant Colonel, USAF

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BIOGRAPICAL SKETCHES

Lieutenant Colonel Brian L. Kessler (B.S., U.S. Air Force Academy; M.S. and J.D., University of California, Los Angeles) has been an Air Force judge advocate since 1973. He has served in the Air Force Systems Command, the Air Force Logistics Command, and the Strategic Air Command. He has been Chief, Contract Law Branch at the Oklahoma City Air Logistics Center; an ASTRA Officer; Staff Judge Advocate of the F-16 European contract administration organization in Brussels, Belgium; Chief, Contract and Patent Law Division in the Office of the Staff Judge Advocate at Space Division, Los Angeles Air Force Station, California; and Base Staff Judge Advocate at Vandenberg Air Force Base, California. Colonel Kessler is a graduate of the Air War College, class of 1987.

Lieutenant Colonel Charles M. Swager, USAF, was graduated from Auburn University and commissioned through AFROTC in 1968. He has flown the KC-135 in the Strategic Air Command and the HH-53 (Jolly Green) in the Military Airlift Command. His acquisition experience was acquired through the Air Force Institute of Technology and at the Ballistic Missile Office, where he served as a propulsion systems project officer on the MX missile from 1979-1982. He was subsequently assigned to the Operations Division (J-3) of the U.S. Readiness Command where he served in a joint service assignment. Colonel Swager is a graduate of the Air War College, class of 1987.

TABLE OF CONTENTS

	Page
DISCLAIMER-ABSTAINER	5-2
BIOGRAPHICAL SKETCHES	5-3
INTRODUCTION	5-5
CHRONIC PROBLEMS AND TRENDS IN DEFENSE SYSTEMS ACQUISITION (1967-1987)	5-6
Declining Military Readiness	5-6
Lengthening of the Acquisition Cycle	5-11
A GLIMPSE OF THE WORLD IN A.D. 2007	5-15
U.S. Nuclear Strategy	5-15
U.S. Global Interests	5-16
Military Roles and Missions	5-18
A PRESCRIPTIVE HISTORY OF THE WEAPON SYSTEMS ACQUISITION SYSTEM (1987-2007)	5-20
The Joint Weapons Acquisition Acency (JWAA)	5-20
The Congressional Office for Oversight of DoD Acquisition (COODA)	5-24
Changes in the Weapon Systems Acquisition Process	5-26
Requirements Determination--A Joint Focus	5-27
Research and Development	5-29
Full Scale Development	5-32
Production	5-33
CONCLUSION	5-37
NOTES	5-38
BIBLIOGRAPHY	5-41

INTRODUCTION

In the recent past, the Department of Defense (DoD) has been plagued by chronic problems in the way it acquires weapon systems. These problems fall into three categories: (a) the high cost of modern weapon systems, (b) the performance and complexity of those weapon systems, and (c) the lengthy acquisition cycle necessary to bring them into the DoD inventory.[1] In attempting to deal with these problems, the Congress and the DoD initiated numerous studies[2] which have resulted in a plethora of actions intended to improve the DoD's weapon systems acquisition process; however, the chronic problems have not been solved. In this paper we will examine these continuing acquisition problems and discuss some adverse trends that occurred over the past 20 years. We will then suggest some solutions that could reverse the adverse trends over the next 20 years.

To do this, we will employ a useful long-term planning approach advocated by the late Herman Kahn.[3] We will attempt to write a prescriptive history of the weapon systems acquisition process for the next 20 years, from the vantage point of the year 2007. We have selected 20 years because it is sufficiently long-term for considerable innovative change to take place, yet not so distant as to suggest that our "proposals" be regarded as mere

intellectual fantasy. We will describe the world situation in 2007 from the DoD perspective, and will discuss the acquisition process as it exists in 2007 as well as the factors that shaped it between 1987 and 2007.

CHRONIC PROBLEMS AND TRENDS IN DEFENSE SYSTEMS ACQUISITION (1967-1987)

Declining Military Readiness[4]

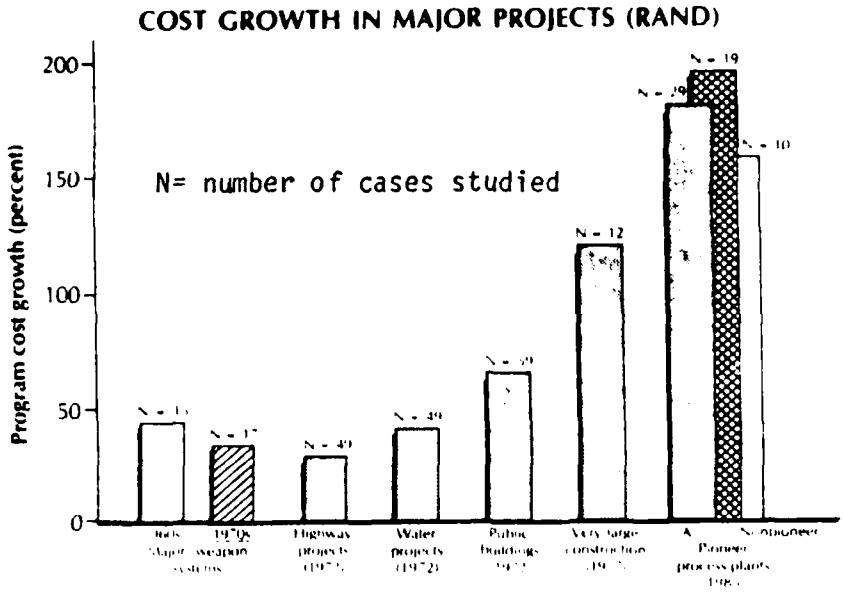
In his book Defense Facts of Life: The Plans/Reality Mismatch, Franklin C. Spinney concludes:

> From the perspective of what has happened in the past, there exists a chronic mismatch between short-term decisions (or desires) and long-term behavior (reality). In the short term, attempts have been made to hold down operating budgets (personnel, operations and maintenance, and readiness-related procurement) while increasing budget growth in procurement budgets to modernize U.S. military forces.[5]

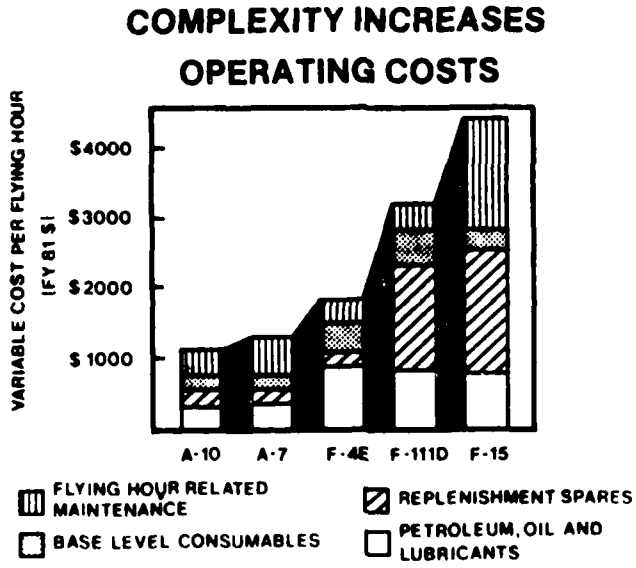
According to Mr. Spinney, in the long run, the only way the operating budgets could be held down was by shrinking the size of the forces, thereby resulting in decreased readiness. As a result, the DoD has been forced to acquire fewer and fewer weapons due to their ever-increasing costs. The DoD has maintained, however, that U.S. weapons are technologically superior to those of the Soviets and this technology advantage acts as a "force multiplier" to offset the U.S. quantitative disadvantage. Of course, it is not

DoD policy to shrink U.S. forces, reduce readiness, or slow modernization. Stated policy and plans have indicated exactly opposite goals for the past 20 years; however, actual patterns and trends are contrary to these stated goals. There has been a bias toward underestimating future operating costs of a new weapon system. This occurs because program advocates must show their weapon system to be affordable before Congress will appropriate funds, and there is a natural tendency to be overly optimistic about unit production costs and future operating costs. The resulting "unexpected" cost growth is financed by simply procuring fewer and fewer systems.

Contrary to public criticism, cost overruns have not been a chronic problem in the acquisition of weapon systems. In a 1986 research report published by The Rand Corporation, the authors concluded that "cost growth in defense programs is now no greater than in civil programs of similar character and complexity and is probably a good deal less."[6] This can be seen from the chart entitled "Cost Growth in Major Projects (RAND)" which appears below.[7] The real "cost" issue in DoD weapon systems acquisition is striking the proper balance between the complexity of a weapon system and the quantity of that system that can be purchased for a given budget (e.g., buying 6 units at $30x or 9 units at $20x).



Generally, as weapons have become more complex their costs have increased significantly. This can be readily seen from the following examples of tactical aircraft statistics over the past several years.[8]



The complexity of these tactical aircraft can be measured through Material Readiness Indicators used in their daily maintenance. The following table reflects that the more complex the system is: the more time that system is not mission capable (NMC); the fewer mean flying hours between failures (MFHBF); and the more maintenance man hours per sortie (MMH/S). Simply stated, complex aircraft are more expensive to operate and maintain.

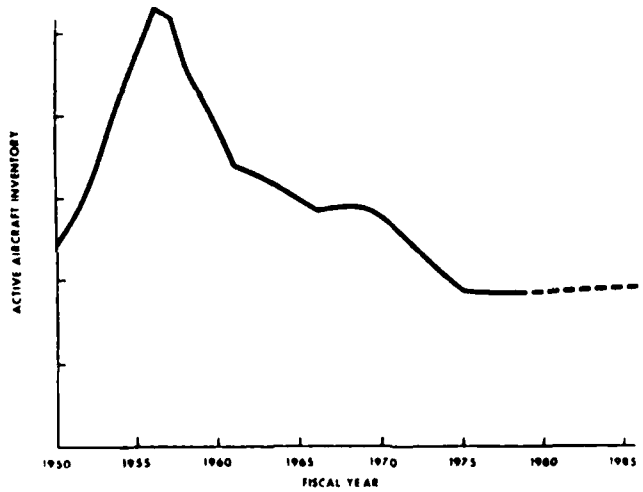
TACTICAL AVIATION MATERIAL READINESS INDICATORS (FY 1979)[9]

Aircraft	Complexity	MFHBF	MMH/S	NMC (%)
A-10	Medium	1.2	18.4	32.6
A-7D	Medium	0.9	23.8	38.6
A-4E	Medium	0.4	38.0	34.1
F-15	High	0.5	33.6	44.3
F-111F	High	0.3	74.7	36.9
F-111D	High	0.2	98.4	65.6

Key: MFHBF--mean flying hours between failure
MMH/S--maintenance manhours per sortie
NMC--not mission capable rate

These data reflect that increased complexity generates increased operating and maintenance costs.[10] Because of this unprogrammed expense, the Air Force was constrained to buy fewer tactical aircraft than planned, which has reduced overall combat readiness. It is clear from the following chart that during the past 35 years, the Air Force's active aircraft inventory has decreased significantly.[11]

AIR FORCE ACTIVE AIRCRAFT INVENTORY



In addition, the high cost of spare parts has mandated that the Air Force buy fewer war reserve spare parts kits. For example, according to Spinney, as originally planned, the F-15 was to have a 30-day peacetime stockpile of spare parts; however, due to the high cost of these spare parts, this was decreased to a five-day supply. This means that each F-15 squadron can operate in combat for only five days before it becomes dependent on shop repairs as opposed to the simple removal and replacement of "black boxes" (line replaceable units). The low maintenance manhours per sortie (MMW/S) for the F-15 reflected in the preceding table is attributable to counting only the time required to remove and replace a black box, not the time required to repair it. Spinney estimates that by implementing the five-day plan each F-15 squadron saved $97 million.[12] The "real" price paid for this savings was 25 days of combat readiness (the ability to sustain our F-15 aircraft during the 6th through

30th day of the war).

A less obvious (but no less critical) factor that has contributed to decreasing U.S. military readiness is a shift of the defense industry to non-military products. Congressionally mandated changes in annual procurement rates and cancellations or delays of programs have forced companies to diversify for self-protection, and some companies have even left the defense industry altogether. This erosion of the defense industrial base is a primary contributor to longer procurement cycles and decreased military readiness due to industry's inability to respond quickly to surge demands in time of war.[13]

Lengthening of the Acquisition Cycle

Another documented adverse trend that occurred during the 1967 to 1987 period was a lengthening of the acquisition cycle--the interval between the conception of a new weapon system and its operational deployment.[14] The reason for this can be traced to several factors.

A major factor has been the DoD's attempt to "push" the state of the art and develop weapon systems around unproven technologies. In a world of dynamic technological growth, DoD program managers have tried to incorporate promising new technologies into programs already in development. In addition to lengthening the development

time, this has often resulted in cost growth, increased operational complexity, and increased maintenance requirements without meaningfully enhancing the military utility of the system. Many program managers were unable to determine the appropriate level of technology for their weapon system and then exercise the discipline to live with their decision.[15] This shortcoming was due in part to weapon systems being designed without adequate thought given to the mission they must perform. It stemmed from the failure of the requirements process to define a mission and then have the weapon system's design and technology follow. Another result of an unreasonably long acquisition cycle was that the fielded equipment contained some obsolete technology due to the long delay in getting the weapon system from the laboratory to the field.[16]

A 1986 research report published by The Rand Corporation entitled "Improving the Military Acquisition Process" stated that the production phase of the acquisition process was being stretched out, "primarily for budgetary reasons." It concluded that the stretchout "contributes to the aging of the weapons inventory" and "to cost growth, especially when (as is typical) stretchout leads to repeated disruptions in production rate."[17]

Another factor that has contributed to a lengthy production phase is the failure of the defense industry to modernize its production facilities. Defense items are

manufactured in some of the oldest plants in the United States, and investment in new capital equipment has been low.[18] An additional factor contributing to the lengthy production phase has been the need for long-lead-time components, such as forgings and castings. Production capacity has simply not been adequate to fill the demand for these items in a timely manner. This inadequacy has been caused, in part, by the enactment of environmental and occupational safety and health laws and regulations in the early 1970s, which required manufacturers to invest in pollution abatement equipment and to improve working conditions. The foundry industry was particularly hard hit by these government programs, for several hundred foundries discontinued operations as compliance with the regulations was financially prohibitive. As a result, backlogs developed and lead times increased dramatically for aerospace castings; for example, lead times of 10-20 weeks in 1972 increased to 50-80 weeks in 1982.[19] Energy intensive industries, such as refineries and mills, which convert raw materials into processed materials, were also adversely affected by the three energy crises during the 1970s (i.e., in 1973, 1976, and 1979).[20] High interest rates in the 1970s combined with the small tax incentives also discouraged firms from investing in new capital equipment. These factors have contributed to declining defense industrial productivity which, in turn, has

increased production lead times for manufactured products. These events have slowed down the production of weapons, and thus, have adversely affected military readiness.

The chronic problems and adverse trends we have examined, as well as some widely publicized "horror stories" about overpriced spare parts, caused individuals in both the public and private sectors to criticize the DoD acquisition process. In 1985 President Reagan responded to the criticism and the diminishing public confidence in the defense acquisition system by establishing a Blue Ribbon Commission on Defense Management headed by former Deputy Secretary of Defense David Packard. The Packard Commission was chartered "to evaluate the defense acquisition system, to determine how it might be improved, and to recommend changes that can lead to the acquisition of military equipment with equal or greater performance but at lower cost and with less delay."[21] The Packard Commission Report, published in June 1986, advocated a series of major reforms to make the defense acquisition system more efficient. Similarly, the Congress responded to the need for acquisition reform by enacting the Goldwater-Nichols Department of Defense Reorganization Act of 1986 and the Defense Acquisition Improvement Act of 1986. These executive and legislative reforms are being implemented; however, their effect is yet to be determined. With this as a foundation, we will postulate the future of the DoD

acquisition system over the next two decades based upon current reform directives and our own suggested formalae for improvement. To set the stage, we will suggest a plausible world scenario in 2007 that includes the threat to which the weapon systems acquisition system must be responsive.

A GLIMPSE OF THE WORLD IN A.D. 2007

U.S. Nuclear Strategy

While the U.S. strategic nuclear doctrine of deterrence has not changed over the past 20 years (1987-2007), there have been changes in the way that doctrine is executed. The Strategic Space Defense System (SSDS), conceived in the mid-1980s as the Strategic Defense Initiative, has become operational. It currently provides an active defense against Soviet intercontinental ballistic missiles (ICBMs) directed at the continental United States and NATO allies. The SSDS does not, however, provide protection against Soviet submarine-launched ballistic missiles (SLBMs), bombers, or cruise missiles. U.S. offensive nuclear forces still consist of ICBMs, SLBMs and manned bombers; however, because of its hard-target kill capability, increased range, and high survivability, a new model cruise missile has been added to the strategic Triad. In addition, the Strategic Defense System has become part of

the U.S. nuclear deterrent force, resulting in the strategic "Pentad." New technologies developed during the past 20 years (e.g., small, high-speed computers with signal and data processing capabilities 1,000 times faster and much lighter than those of 20 years ago) have resulted in cruise missile accuracy of virtually "zero CEP" (circular error probability). Likewise, the ICBM and SLBM forces equipped with maneuvering reentry vehicles (MaRVs) are able to avoid Soviet antiballistic missile defenses and still maintain a virtual "zero CEP" capability. Similarly, the Peacekeeper's survivability has been enhanced significantly through dual basing (fixed and mobile). The newest land-based ICBM, the Peacemaker (formerly known as the "Small ICBM"), is now deployed in an overland mobile configuration, which makes the ICBM force even more survivable. The technological advances by the United States over the past 20 years have not fanned the flames of super-power tensions; on the contrary, they have increased the nuclear threshold by providing greater assurance to the Soviets of an enhanced U.S. capability to conduct retaliatory strikes.

U.S. Global Interests

The relative peace from 1987 to 2007 demonstrated the continuing viability and effectiveness of the North Atlantic Alliance. France continued her political

membership in NATO, as well as her posture of military non-participation. Although some of the other NATO members acquired a nuclear weapons capability, they continued to rely upon U.S. ground-launched cruise missiles deployed throughout Western Europe, together with the SSDS, for deterring Soviet aggression.

At the end of the 1980s, a shift in U.S. national strategy occurred. As a result of insurgencies and Cuban-sponsored destabilization activities in Central and South America, that region of the world assumed a prominent place in U.S. defense planning. Our national interests in Central and South America were defined with great specificity by Congress, and both the media and the public began sharing the view of the political leaders who regarded our southern flank as a threatened vital interest that warranted a national commitment. Our foreign assistance to friendly governments in that region was greatly increased, and the readiness of U.S. political leaders to sanction the use of U.S. military force was clearly indicated. This had a profound effect upon military strategy and the particular weapon systems acquired by the DoD. Since U.S. military action in Central and South America was regarded as significantly more likely than the engagement of U.S. troops in a conventional war in Europe, the procurement of relatively small quantities of high technology weapons gradually shifted to the acquisition of large numbers of

less complex, relatively low-cost weapons designed for the rugged operating conditions of a low intensity conflict environment.

Military Roles and Missions

Three evolutionary changes occurred from 1987 to 2007 which have significantly enhanced our ability to respond to crises using military force. Full responsibility for the close air support (CAS) mission, once the sole domain of the Air Force, was assumed by the Army. This shift was based primarily on command and control considerations; the Joint Chiefs of Staff placed all CAS assets under direct Army control at corps level or below. Accordingly, both the CAS mission and Air Force hardware dedicated to that mission (the A-10 and its follow-on A-19 aircraft) were transferred to the Army. As a corollary mission the Army has assumed primary responsibility for battlefield air interdiction (BAI). This did not exclude the Air Force from the BAI mission--the ground theater commander defines the battlefield and the Air Force supports the Army as requested. The second change occurred in DoD force structure. Multi-theater low intensity conflicts have driven the DoD force structure planning since 1990. As a result, active forces have declined; however, the Reserve and National Guard forces have increased significantly,

resulting in a total force of 4.5 million military personnel. Two new national training centers were established to augment the Fort Irwin National Training Center--one in Puerto Rico and the other in Alaska. Training of Reserve forces (as well as active forces) has been continuous, equippage has been significantly upgraded, and the readiness of Reserve and National Guard forces has been enhanced. Reserve and National Guard forces are now the mainstay of U.S. military force structure for employment in a low intensity conflict. Another change, which significantly affected weapon systems acquisition, was the U.S. Government policy of acquiring multi-role systems that can be routinely employed by non-DoD agencies during peacetime, yet dedicated to specific military missions during war. Examples of the peacetime roles of these systems are: drug interdiction, coastal defense, border patrol, medical evacuation, and rescue and recovery operations. These multi-role weapons generated significant savings for the DoD by having other agencies share in the acquisition and operational costs of such systems, which are owned and operated during peacetime by non-DoD agencies yet are available for exclusive use by the DoD during wartime.

A PRESCRIPTIVE HISTORY OF

THE WEAPON SYSTEMS ACQUISITION SYSTEM (1987-2007)

The Joint Weapons Acquisition Agency (JWAA)

The last two decades were replete with changes in the DoD acquisition process in response to declining real growth in the DoD budget which resulted from legislation to balance the federal budget. To cope with the enormous pressure of maintaining a strong national defense in a lengthy period of declining DoD purchasing power, the DoD initiated some rather unique and innovative organizational changes. Most notable was the formation of the DoD Joint Weapons Acquisition Agency (JWAA).

In response to an emphasis on joint military operations beginning in the late 1980s, and the concomitant pressures to streamline the DoD acquisition process, the Secretary of Defense directed that a single agency be created to develop, test and procure all DoD weapon systems. In 1990, the JWAA was formed with military and civilian personnel from the three Services' acquisition commands, which have remained virtually intact; however, these commands now report to JWAA rather than their Service headquarters. Today the JWAA is comprised of almost 100,000 Acquisition Corps personnel, 75 percent of whom are civilian. These military and civilian personnel are

carefully trained and managed to ensure career progression through general/flag officer rank (or civilian equivalent), with career broadening assignments in operational commands, principally the unified and specified commands.

Since its founding, the JWAA has espoused a management philosophy of "centralize--only when necessary." The JWAA recognized that a strong, central and coordinated focus was needed to exploit and integrate the unique capabilities of each Service, eliminate wasteful and undesirable duplication, and assure a common analytic approach in dealing with a multi-faceted national threat. Hence, the JWAA centralized the following functions: monitoring joint research programs; concept development; cost analysis; allocation of funds to each program; contract administration; and DoD data acquisition. These functions are now performed in a joint-Service environment for the benefit of all Services. All other functions have been decentralized down to the individual Services where they are more effectively performed. For example, approval authority for sole source contracting has been vested in Program Executive Officers for major programs. Now, program managers have much shorter command channels than existed in the mid-1980s.

The past 20 years have also been characterized by a significant reduction in Service parochialism. Prior to the formation of the JWAA, the Services competed with one

another for portions of the DoD budget. The JWAA forced cooperation among the Services by providing an atmosphere which both encouraged and demanded joint participation. Funds which were formerly provided to the individual Services for research, development, and acquisition are now provided to the JWAA for allocation to program managers. This joint focus has resulted in acquiring numerous weapon systems with common logistics support, which has significantly reduced operational and maintenance costs. The JWAA made some hard decisions such as canceling some major programs which failed to achieve their specified baseline performance. Specifically, the objectivity stimulated by the JWAA's joint-Service environment overcame the reluctance of the individual Services to recognize and terminate their marginally effective programs. In some instances, the JWAA canceled planned new starts in order to preserve the stable funding of ongoing programs. The JWAA has produced many significant results through its management of the DoD acquisition process. These include:

1. Re-establishment of public confidence in government procurement by eliminating Service parochialism in weapon systems acquisition, streamlining the DoD acquisition system, and centralizing control of DoD acquisition funds.

2. Acquisition of weapons designed for specific joint military operations by a joint organization.

3. Significant savings in the aggregate cost of DoD weapon systems attributable to the acquisition of multi-mission weapons, versus Service-unique weapons, and to greater commonality between the Services' equipment.

4. Cost savings through greater use of off-the-shelf and commercial products and previously developed military components.

5. Acquisition of a greater quantity of less sophisticated weapons in response to a change in military strategy based upon the increased threat of low intensity conflict in Central and South America.

6. Reduced technological risk in acquisition programs resulting from technology baselining (or freezing) during the concept formulation phase.

7. Increased combat readiness through reduced dependency on depot maintenance and more reliance on field maintenance.

8. Development and retention of Defense Acquisition Corps professionals through carefully structured personnel policies.

9. Increased use of multi-year contracting as a result of increased program stability.

10. Extensive use of mission-oriented performance specifications versus overly restrictive design specifications.

11. Reduction of cost over-runs to less than 10

percent on virtually all programs resulting from improved cost estimating.

The JWAA has not been the only actor in improving the DoD weapon systems acquisition process. Congress has also contributed to reversing the adverse trends that prevailed during the 1967-1987 period.

The Congressional Office for Oversight of DoD Acquisition (COODA)

In response to the public clamor for acquisition reform, the 103rd Congress instituted a major innovative change. It created the Congressional Office for Oversight of DoD Acquisition (COODA), responsible for oversight of all DoD weapon systems acquisition. This organization freed the Congressional staffs from the burdensome technical analysis and micromanagement of DoD acquisition programs and placed a dedicated, highly skilled staff of acquisition professionals at the fingertips of all the members of Congress. In concept, the COODA is similar to the General Accounting Office--a non-partisan "watchdog" of Congress.

The COODA staff developed open lines of communication with key DoD acquisition professionals, (i.e., the Defense Acquisition Executive, Service Acquisition Executives, Program Executive Officers, and Program Managers). In the same cooperative spirit, the JWAA's

management established an "open program" policy and encouraged staff members of the COODA to become involved in all JWAA programs at their beginning. COODA staff members attend formal program reviews at which they obtain complete program and technical data that Congress considers essential. They also insure that Congressional concerns are surfaced for consideration by the JWAA.

The benefits of the COODA to the DoD acquisition process have been enormous. Specifically:

1. The information flow and the mutual understanding and cooperation between the DoD and the Congress were greatly improved.

2. The Congressional requirement for the DoD to submit detailed, time-consuming reports was drastically diminished since the COODA provides a continuous flow of timely informaton to the Congress.

3. The large volume of Congressional hearings requiring DoD input was significantly reduced.

4. Better cost estimates have facilitated accurate, long-term budgeting which has resulted in more program stability (i.e., stable production rates).

5. The stability of DoD programs has, in turn, induced more industrial participation in DoD contracts, thereby revitalizing the defense industrial base.

6. Unexpected cost growth was ameliorated through the COODA's accurate, independent cost estimates of new

weapon systems.

7. Congress has not, since 1995, needed to enact a Continuing Resolution for DoD appropriations at the beginning of each fiscal year.

8. Because of the COODA's direct involvement in the acquisition process, the Congress has helped restore public confidence in the DoD acquisition system.

Changes in the Weapon Systems Acquisition Process

For the past 40 years, a continuous debate has been waged concerning the quality versus the quantity of new weapon systems acquired. The central issue in this debate is whether a smaller force of sophisticated weapons employing high technology (quality) can defeat a larger force of rugged, relatively non-sophisticated weapons (quantity). The "quality" advocates maintain that during the development of new weapons, we should attempt to incorporate all the latest technologies, including those that push the state of the art. In the past, this has resulted in much higher program risk, higher cost, and a lengthier development cycle. In the late-1980s, DoD attitudes toward high technology weapons started to shift. DoD officials began to heed the lessons of history. High technology was not the decisive factor in World War II, nor did it produce a decisive victory for us in Korea, for the

French in Indochina, or for us in Vietnam.[22] In 1986, the Packard Commission concluded: "At some point, more weapons of lower performance can overcome fewer weapons of higher performance."[23]

DoD attitudes concerning "quality" were dramatically influenced by the espionage cases of the Walkers and Whitworth, who were convicted in 1986 of selling highly classified defense information to the Soviets. This "technology leak" continued during the 1990s with the free flow of information from West to East in open literature; the irresponsible release of classified information by government officials; U.S. sales of high-technology equipment to foreign markets, even to countries believed to be friendly to us; and both military and industrial espionage. A rude awakening came in the mid-1990s when the DoD realized the Soviets were no longer simply copying our technology, but had become a designer-producer of high-tech military products. The U.S. lead in weapons technology almost disappeared in the late 1990s. At that point, the DoD recognized that reliance upon superior technology as a "force multiplier" was ill-founded, and the DoD began to subscribe to the philosophy that "quantity has a quality all its own."[24]

Requirements Determination--A Joint Focus. The DoD acquisition process now begins with a clear definition of

operational requirements. The Goldwater-Nichols Department of Defense Reorganization Act of 1986 changed the manner in which weapon systems requirements are determined. The Congress elevated the requirements process to the highest level possible, to the Chairman of the Joint Chiefs of Staff (JCS). The Chairman, by law, now serves as the spokesman for the commanders of combatant commands, especially on the operational requirements of their command. However, not until the argument over whether the cruise missile should be added to our strategic Triad did the unified and specified commanders assume their preeminent position in establishing operational requirements for new or modified systems. From that time on, the requirements process began with the unified and specified commanders, who now develop or sponsor all statements of need (broad non-system-specific statements of operational requirements). The statements of need (SONs) are sent to all other unified and specified commands for review and comment, then to the JCS for validation. If one of the Services develops a SON, it must be sponsored by a combatant commander in order to be submitted to the JCS for validation. After the validation phase, the concept development/cost analysis phase begins at the Joint Weapons Acquisition Agency. It is through this organization that all the Services participate in developing alternatives to satisfy the stated requirement. There are no cost constraints during this phase; however, the costs associated

with each alternative concept are eventually weighed in the final decision of which weapon system to pursue. One great benefit of the concept development/cost analysis phase is that it has been shortened. The JWAA must complete this phase within six months and forward its recommendations to the Chairman of the JCS. The Chairman must obtain the concurrence of the appropriate unified and specified commanders before the JWAA proceeds to full scale development or prototyping.

Research and Development. Despite DoD emphasis on fielding greater quantities of less complex weaponry, a vigorous research and development (R&D) program has been pursued, fueled by the realization that such is essential to avert another Sputnik/ICBM technological surprise. Congressional fear that the Soviets might gain first access to some "ultimate weapon," as we did with the atomic bomb, stimulated the Congress to fund a more extensive R&D program within the DoD. In this regard, R&D of the Strategic Defense Initiative was continued at a rapid pace, and the Strategic Space Defense System reached initial operational capability in 2001.

A large R&D effort was directed at technologies to improve our capability for conducting low intensity conflict. One of the most significant results of that effort was the creation of an air-to-air rearming capability

for fighter aircraft. It provided benefits equivalent to those provided by air-to-air refueling. Another benefit of the expanded R&D program was the development of unmanned, remotely piloted aircraft for use in intelligence, communications, and weapons delivery. The JWAA also expended considerable energy in developing advanced production techniques to reduce the cost of, and time required for, manufacturing military hardware. An example of such a production technology is the laser milling machine for uni-body construction of aircraft wings.

The Packard Commission recommendation to build prototypes as a matter of course for all major weapon systems was fully implemented in 1989. This prototyping facilitated an early assessment of the benefit of new technologies in improving military capabilities, and it established a basis for more realistic cost estimates. Also as recommended by the Packard Commission, operational testing is now routinely begun early in advanced development, using prototype hardware, and the prototyping cycle has been shortened to two years for most systems.

In 1990, the chief DoD scientist was assigned to the JWAA and given the responsibility of overseeing and coordinating all research activities sponsored by the DoD. This insured the maximum crossfeed of information between the Services and precluded wasteful duplication of research effort. His oversight responsibilities extend to the

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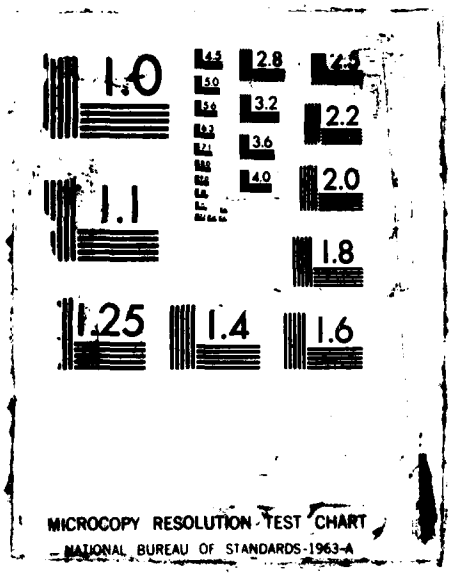
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conducted by the Services in their numerous laboratories and to research accomplished pursuant to government contracts with universities, corporations, and federal contract research centers (e.g., The Aerospace Corporation, The Rand Corporation, and The MITRE Corporation).

An important R&D initiative was adopted by the Secretary of Defense in the early 1990s. Upon recognizing that Congress was not going to fund the DoD's R&D adequately to explore all the Project Forecast II concepts,[25] he sought industrial participation to "supplement" the DoD budget. He had his staff identify those Project Forecast II concepts that had great potential for commercial application (like the KC-135/Boeing 707 design and the NAVSTAR/Global Positioning System did). He then shared the DoD's basic research with various defense contractors and persuaded them to conduct the R&D of those concepts at corporate expense. This partnership between the DoD and industry yielded many advanced technologies that the DoD alone could not have afforded. These technologies are now being exploited in both industry and in military weapon systems. An example is the development of a new non-nuclear explosive that filled the enormous gap between the yield per pound of conventional ordnance (e.g., TNT) and that of nuclear weapons. This breakthrough in explosives technology was developed by an oil exploration company and it revolutionized the industry. It facilitated the extraction of unprecedented amounts of

oil from deep shale deposits. Additionally, this extremely high-powered, low-weight explosive has greatly increased the lethality of the DoD's conventional weapons.

Full Scale Development. Two significant changes were made to the full scale development (FSD) phase of the DoD weapon systems acquisition process. These were: (a) the requirement for performance and technology baselines (PTBs), and (b) the practice of direct Congressional oversight (by the COODA) during FSD.

One of the important concepts that was implemented in the 1980s was weapon system baselining. In essence, this concept called for a contract between the program manager and top DoD management concerning a weapon's performance, cost, and schedule goals--essentially, management by objective during FSD. In the late 1990s, the DoD required that an additional factor be baselined: technologies. This was the result of problems occurring during the 1960s-80s of lengthened FSD phases and increased costs due to high risk technologies that simply did not pan out. Now the technologies must be demonstrated during an advanced development period (basic and applied research) at military or civilian laboratories before they are incorporated into FSD programs. This has significantly reduced technological risk during FSD, thus causing FSD schedules to be more predictable and reducing "unexpected" cost growth during

Full Scale Development.

Production. During the late 1980s and the 1990s, revitalizing the military-industrial base became a high DoD and congressional priority because of its vital importance to military readiness. Great success was achieved in this area as a result of the efforts by the DoD and the Congress to stabilize weapon systems acquisition programs. Through the widespread employment of baselining and multi-year contracting, program stability was enhanced. This stability (of funding and production quantities) made defense contracts more attractive to industry, it encouraged capital investment, and it produced significant cost savings for the DoD both through increased competition for government contracts and through production efficiencies.

Multi-year procurement has been a great testimonial to the success achieved by the Congress and the DoD working together to improve the acquisition process. By planning for and executing production runs for three years of DoD requirements on selected weapon systems, industry has been able to achieve economies and efficiencies in the production process. These included better (uninterrupted) utilization of industrial facilities and the workforce; exploitation of the learning curve phenomenon; and purchase of materials in larger, more economic quantities. Industry's tremendous cost savings were shared with its customer, the DoD. In

addition, the Government experienced further savings through the reduction of administrative costs associated with the placement and administration of fewer government contracts.

The JWAA recognized that after a company was awarded a three-year production contract that company became insulated from further competition for the duration of the contract, thereby eliminating its incentive to become increasingly more efficient. Therefore, to overcome this, the JWAA employed the selective practice of "dual sourcing" the production of weapon systems. Such dual sourcing ("split buys") created head-to-head competition which resulted in great savings to the DoD, not only in subsequent buys, but particularly in the acquisition of replenishment spare parts.

Besides baselining, multi-year procurement, and dual sourcing, over the last two decades the DoD adopted other programs to achieve cost reduction in the acquisition process. One of these was to stimulate competition by maximizing the use of "off-the-shelf" commercial products. Accordingly, government contracts were written with broad, functional descriptions (i.e., performance specifications) to define product requirements in order to promote the use of commercial and previously developed military items wherever practicable. This achieved great success, particularly in the area of communications and computers. Through the new emphasis, the DoD was able to take advantage

of lower unit costs that result from larger production runs as well as competitive market forces.

Another successful cost-reduction program was Value Engineering[26], which received renewed emphasis by the DoD. Government contractors rose to the challenge of innovation in design and production processes in order to increase shareholder profits. The savings to the DoD were "plowed back" into the product to achieve even greater quality, for when a Value Engineering Change Proposal was approved, the contract was also modified to include a specification for minimum mean time between failure of the affected system. This, in turn, resulted in lower life cycle cost.

The DoD was also able to bring about an increase in the quality of its weapon systems and components through more extensive use of contractors' prior performance in the source selection process. This change in DoD policy in the late 1980s was precipitated by a single contractor producing three weapon systems that failed to meet performance specifications. Since then, "relevant past performance" has been more broadly defined and been given greater weight by source selection authorities.

Another method employed by the Congress to revitalize the military-industrial base was the enactment of legislation to give government contractors investment tax credits for capital investment. Similarly, in 1990, the DoD began using contractual incentives to motivate contractors

to modernize their facilities. The DoD also changed its policy concerning the retention of large inventories of special tooling and special test equipment--it divested itself of those inventories and established a separate profit element to encourage industry to use contractor furnished equipment. All of this has contributed to enhanced military readiness through increased industrial preparedness to respond to military needs.

Finally, the DoD achieved success in reducing the length of the acquisition cycle by making an important "make or buy" decision of its own concerning critical long-lead items. Because of the excessive time required by industry to produce forgings and castings, in 1992 the Secretary of Defense decided to develop an organic DoD capability to produce those critical components. This government-operated manufacturing facility supplemented the existing DoD remanufacturing operations at the air logistics centers and naval shipyards. This program was a resounding success, for the DoD was able to produce quality components in less time than they could be acquired from the civil sector. The DoD manufactured forgings and castings were then provided to the production contractor as government furnished property.

The progressive production changes occurring over the past two decades have greatly enhanced industrial preparedness, the DoD's purchasing power, and most importantly, military readiness.

CONCLUSION

In this paper we have examined chronic problems and adverse trends experienced in the acquisition of weapon systems during the 20-year period from 1967 to 1987. Having studied the three most recent catalysts for acquisition reform, the Packard Commission Report, the Goldwater-Nichols Department of Defense Reorganization Act of 1986, and the Defense Acquisition Improvement Act of 1986, we then projected ourselves two decades forward and attempted to write a prescriptive history of the weapon systems acquisition process from 1987 to 2007. We chose a prescriptive history approach as a provocative way to stimulate thought and constructive change. After briefly describing a plausible world scenario and U.S. military strategy as we envision them in 2007, we then discussed executive and legislative branch actions to create a healthy weapon systems acquisition process. We suggested an acquisition process that is more responsive to meeting the changing military threat, that produces more cost-effective weapon systems, and that delivers new weapon systems in a shorter time. The acquisition process of the future, after two decades of reform, should restore public confidence in the DoD's management of public funds and enhance military readiness.

NOTES

1. A Quest for Excellence, Final Report to the President by the President's Blue Ribbon Commission on Defense Management, David Packard, Chairman (Washington, D.C.: U.S. Government Printing Office, June 1986), p. XXII.

2. Examples are: The Fitzhugh Report, 1980; The Commission on Government Procurement Report, 1972; The Acquisition Advisory Group Report, 1975; Report of the Acquisition Cycle Task Force, 1978; Defense Science Board 1980 Summer Study on Industrial Responsiveness, 1981; etc.

3. Major General Perry M. Smith, "Creating a Strategic Vision: The Value of Long-Range Planning," Air University Review, (September-October 1986), p. 17.

4. The phrase "military readiness" refers to the capability of a unit, a weapon system, and related support equipment to respond promptly and perform the mission or function for which it is organized or designed. Military readiness also includes force structure (i.e., number, size and composition of forces) and sustainability (i.e., staying power or endurance).

5. Franklin C. Spinney, Defense Facts of Life: The Plans/Reality Mismatch, (Westview Press, Boulder, Colorado, 1985), p. 116.

6. Michael Rich and Edmund Dews, Improving the Military Acquisition Process, (Santa Monica, California: The Rand Corporation, [1986]), p. vii.

7. Ibid., p. 11.

8. Spinney, p. 53.

9. Ibid., p. 52.

10. Defense Facts of Life: The Plans/Reality Mismatch contains numerous other examples of Army, Navy, and Air Force systems that have consistently shown increasing costs and complexity, decreasing quantity, and decreasing military readiness.

11. Spinney, p. 23.

12. Ibid., p. 35.

13. Study of Increasing Lead Times in Major Weapon Systems Acquisition, Doty Associates, Inc., (Rockville, Maryland: [1981]) p. 3-26.

14. Rich and Dews, pp. vii and 13-17.

15. Dr. Richard P. Hallion, "Girding For War: Perspectives on Research, Development, Acquisition, and the Decisionmaking Environment of the 1980s," Air University Review (September-October 1986), p. 58.

16. A Formula for Action, A Report to the President on Defense Acquisition by the President's Blue Ribbon Commission on Defense Management, April 1986, pp. 8-9.

17. Rich and Dews, p. vii.

18. Ibid., p. 45.

19. Study of Increasing Lead Times in Major Weapon Systems Acquisition, p. 3-3.

20. Ibid., p. 3-2.

21. A Formula for Action, p. 1.

22. Major Earl H. Tilford, Jr., "The Real Stuff," Air University Review, (September-October 1986), pp 14-15.

23. A Formula for Action, p. 15.

24. This comment is attributed to V. I. Lenin, one of the founders of the Soviet Union.

25. Project Forecast II was a 1986 Air Force Systems Command (AFSC) initiative to identify promising technologies and systems concepts that have the potential of improving tomorrow's Air Force by a revolutionary leap forward. A committee of 175 military and civilians from AFSC, the Air Staff, and the operational commands sifted through some 2000 ideas generated by Air Force laboratories, industry, academia, and the participants themselves. The committee identified more than 70 high technologies and concepts ripe for exploration and exploitation over the next 20 years.

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AIR WAR COLLEGE RESEARCH REPORT ABSTRACT

TITLE: Defense Acquisition in A.D. 2007--A Prescriptive History (Beyond the Packard Commission Report)

AUTHORS: Brian L. Kessler, Lieutenant Colonel, USAF

Charles M. Swager, Lieutenant Colonel, USAF

This research report begins with an examination of chronic problems and adverse trends experienced by the Department of Defense (DoD) from 1967 to 1987. The authors then project themselves 20 years into the future and describe the world scenario and U.S. military strategy as they envision them in the year 2007. Then, using the Packard Commission Report and recent legislation (i.e., the Goldwater-Nichols Department of Defense Reorganization Act of 1986 and the Defense Acquisition Improvement Act of 1986) as a point of departure, they discuss the evolution of the DoD weapon systems acquisition process and the factors that shaped it from 1987 to 2007. To do this they employ a long-term planning approach advocated by the late Herman Kahn--they write a prescriptive history from the vantage point of the year 2007.

The authors discuss many other changes that result in a reformed acquisition process--one that is more responsive to meeting the dynamic military threat, that produces more cost-effective weapon systems, and that delivers new weapon systems in a shorter time. They

postulate an acquisition process that restores public confidence in the DoD's management of public funds and enhances military readiness.

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