

CRITICAL ISSUES IN THE DEFENSE ACQUISITION CULTURE

GOVERNMENT AND INDUSTRY
VIEWS FROM THE TRENCHES

ACKNOWLEDGMENTS

This study was conducted at the initiative of the Program Integration Office of the Under Secretary of Defense for Acquisition. Mr. Gary Christie from the Program Integration Office requested this study and allowed it to be conducted without restraints or qualifications on its findings and recommendations.

The study was made possible through the participation of 80 experienced government and defense industry acquisition managers who shared their insights on the ways the defense acquisition process operates. They provided the substance for the report.

Although the authors take sole responsibility for the conclusions and recommendations, we are particularly grateful for the comments and suggestions made by a small group of advisers that included General Lawrence Skantze, USAF (Ret.); General William Tuttle, USA (Ret.); Major General Charles Henry, USA (Ret.); Mr. John Ciucci, esq., Mr. Robert Wood, and Mr. Myron Myers from the Logistics Management Institute; and Dr. Walter LaBerge and Mr. Tom Dolan, esq., from the Executive Institute at the Defense Systems Management College (DSMC). Captain Jesse Stewart, USN (Ret.), Dr. Owen Gadeken and other DSMC faculty have also made helpful comments and suggestions. We are grateful for their assistance.

J. Ronald Fox, Project Chairman
Edward Hirsch, DSMC Provost and
Deputy Commandant
George Krikorian, DSMC Industry Chair
Mary Schumacher, Research Associate

December 1994

CRITICAL ISSUES IN THE DEFENSE ACQUISITION CULTURE

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
I. INTRODUCTION	13
II. ROLES AND RESPONSIBILITIES OF GOVERNMENT PROGRAM MANAGEMENT	17
A. The Formal Roles	18
B. The Advocacy Role	21
C. Overlap with Contractor Roles	28
Conclusions and Recommendations on Roles and Responsibilities	29
III. GOVERNMENT OVERSIGHT OF CONTRACTORS	37
A. Oversight by the PMO & DPRO	37
B. Oversight outside the PMO & DPRO	45
Conclusions and Recommendations on Government Oversight	49
IV. QUALIFICATIONS AND TRAINING	51
A. Career Issues	52
B. Knowledge of Industry	54
C. Acquisition Experience	55
D. Promotion Opportunities	63
E. Stability in Assignments	65
F. Acquisition Training	71
G. Conveying Lessons Learned	72
Conclusions and Recommendations on Qualifications and Training	76
APPENDIX A -- Discussion Questions	81
APPENDIX B -- Practitioner Views	(separate volume)

CRITICAL ISSUES IN
THE DEFENSE ACQUISITION CULTURE
*Government and Industry
Views from the Trenches*

EXECUTIVE SUMMARY

PURPOSE
OF THE STUDY

This study is about people and how they manage complicated technical programs in a controlled and regulated environment. It is based on extensive interviews with government acquisition managers describing their problems, challenges, incentives, training, and experience. It is also a study of the way industry managers perceive government program management.

The study was undertaken in response to concerns within the Office of the Secretary of Defense (OSD) about overlaps in the roles and responsibilities of government and industry program management. It does not attempt to summarize the strengths and weaknesses of the defense acquisition process, nor does it review the mechanics of the acquisition process--as important as those mechanics may be. Competent work on those topics has been undertaken by organizations inside and outside the Department of Defense.

Instead, this study addresses characteristics of the defense acquisition process and culture that are viewed by government and industry practitioners alike as inhibiting the proper exercise of responsibilities and that undermine DOD's mission to deliver satisfactory weapon systems on a timely and cost-effective basis.

METHODOLOGY

Eighty experienced government and industry managers were interviewed, describing in their own words, defense acquisition problems and their causes. Participants included 47 government managers and 33 defense industry managers (See page 13 for a description of the participants.) A week or more following each interview,

respondents were asked to complete a written questionnaire. Eighty-nine percent of the respondents did so. The views expressed by participants in the interviews and in responses to the questionnaires (See Appendix B) reveal a surprisingly high degree of consensus.

The interviews were designed to elicit candid views of experienced government and industry managers on a non-attribution basis (Interview questions are reproduced in Appendix A). Interviewees described government and industry roles and responsibilities. They also described obstacles to clarifying and carrying out these roles and responsibilities and identified changes needed in the defense culture (i.e., in roles, incentives, training, experience) for government to perform its program management responsibilities effectively.

Selected excerpts from the interviews are included throughout this report. The complete set of interview excerpts are included in Appendix B, organized by topics. Readers are urged to review the material in Appendix B to gain an appreciation of the depth of the convictions and emotions expressed by government and industry practitioners.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

The commonality of views across the interviews (also across government and industry) convinced us that the study identified a series of issues that were central to the challenges and problems of the acquisition process. The most compelling and frequently cited issues dealt with three topics:

1. Ambiguities and conflicts in the roles of program advocate and program manager,
2. Burdensome oversight and review activities imposed on contractors, government program offices and DPROs by the DCAA, the military service hierarchy, OSD, the DOD Inspector General, the General Accounting Office, and the Congress,

3. Deficiencies in acquisition qualifications and training, including lack of a structured mechanism for capturing and conveying lessons learned from prior acquisition programs.

These three topics are vital to managers who operate the acquisition process. Attempts to improve the mechanics of the process will fall far short of their goals unless the problems described in this report are acknowledged and corrected.

ISSUE #1. AMBIGUITIES AND CONFLICTS IN ROLES¹

The study turned up surprising observations about government program management roles and responsibilities. Most experienced acquisition managers do not see overlap between government and industry as a major problem. What they see is a conflict between the reporting of realistic program status, on the one hand, and doing what is necessary to keep programs funded and moving through the acquisition process, on the other. Program cancellation or reduction in scope is perceived by program managers and their service superiors as failure. As such, government managers often must decide whether the "success" of a program, meaning its continuing existence and movement through the acquisition process, takes precedence over reporting realistic program status and problems.

From top to bottom, management staffing of DOD acquisition organizations is unstable. Senior level instability is a consequence of the political system that the Defense Department shares with all Executive Branch agencies. Although management below the political level in civilian agencies is stable, the career-level management staffing of DOD is highly unstable. Below the DOD secretariat, most managerial positions of consequence are held by military officers who are rotated on a two-to-four year basis. No commercial enterprise could tolerate this kind of recurring, management turmoil.

¹Statements of practices and problems are taken from interviews with government and industry managers. Conclusions and recommendations are the responsibility of the authors.

The acquisition careers of military officers often end at a point that the private sector considers very early for retirement (i.e., mid- to late-forties). It is also a time when the officers are beginning to accumulate the extensive experience required to exercise good judgment in dealing with the dilemmas inherent in the acquisition of large, complex, development programs.

Government civilians, by contrast, tend to become proficient in a single discipline, but their career progression is restricted by the fact that they typically cannot aspire to being the "boss." This combination of circumstances results in a set of sub-cultures that hamper communication and make meaningful change difficult.

The future of a government acquisition manager is subject to review and approval by the senior officers of the military service who have committed themselves to obtaining the products of their service's acquisition programs within a wide range of tolerance with respect to costs and technical performance. Consequently, accurate reporting on the status of programs often does not occur when there are serious problems, because problems have an adverse effect on OSD and congressional support for a program. If a program manager's future assignments and promotions depend on the approval of the senior officers of his service (as they currently do), the acquisition process usually leaves him no alternative to being a program advocate if he wishes to remain and progress within his service. It is very difficult to expect a program manager to blow the whistle on his own service when the senior officers who evaluate his performance and who control his future have underestimated and overpromised the program from the beginning. Too often his course of action is to go along with the game, hoping that he will be transferred before the true costs become known. **This is the reality described by many government managers as well as by managers in defense contractor organizations.**

This problem is particularly severe in times of declining budgets, when there is intense competition among contractors and among the military services. Today the defense industry and the military services are in a survival mode.

In early 1993 the U.S. General Accounting Office completed a comprehensive study and published a report on the causes of persistent acquisition problems.² They concluded that some problems occur not because they are inadvertent, but because they are encouraged. For example, while some problems in cost estimating

²*Weapons Acquisition: A Rare Opportunity for Lasting Change*, GAO/NSIAD-93-15, pp.35-59.

are due to flaws in methodology and to unforeseen technical problems, the more pervasive problem is lack of realism; undue optimism does not occur by chance or because estimators lack know-how, but because it helps programs gain approval and survive.

The GAO also concluded that performance shortfalls, schedule delays, and cost increases are the logical consequences of the acquisition culture. The acquisition process operates as it does, they pointed out, because participants are rewarded by the process. While individual participants see their needs as rational and aligned with the national interest, collectively, these needs create incentives for promoting programs and encouraging undue optimism, parochialism, and other compromises of good judgment. The findings of this study reinforce those of the GAO.

GAO found that the consistency of these outcomes--and their imperviousness to reforms, contract types, contractors, acquisition strategies, weapon types, critics, military services, administrations, and Congresses--leads to the unavoidable conclusion that the acquisition process produces what the participants collectively want or are willing to settle for. *Instead of pointing the finger at individual participants, one must keep in mind that they do not act irrationally or with bad intentions. Rather, they do what they believe is right, given the pressures they face.*

It has almost become a cliché to state that the numerous reforms initiated over the years have not had the desired effect and that today DOD faces the same acquisition problems. The proposals to correct problems have run the gamut of adding controls, increasing management layers, streamlining, and decentralizing. They have often sought coercive, procedural, and organizational solutions to make things happen without necessarily addressing why they were not happening previously. For example, there have been recommendations aimed at improving the realism of cost estimates, but these are difficult to implement when the acquisition process itself does not reward realism.³

³Ibid., p.51. Attempts by acquisition executives to obtain realistic information on weapon programs from the military services have fallen far short of their goals. In 1990, the GAO reported that to protect programs from criticism, the services were reluctant to provide the Office of the Secretary of Defense current program information, such as updated cost estimates [Defense Acquisition: Perspectives on Key Elements for Effective Management (GAO/NSIAD-90-90, May 14, 1990).] In fact, top-level acquisition participants' demands for better program information can intensify the protectionism of program sponsors. [Beyond Distrust: Building Bridges Between Congress and the Executive, a report by a Panel of the National Academy of Public Administration, Jan. 1992.]

While proposals have had some success in correcting problems and emplacing a system of checks and balances, GAO found that after initial enthusiasm, support for a reform wanes. *Acquisition reforms have had limited effectiveness because they have not changed the basic incentives or pressures that drive the behavior of the participants in the process. Reforms have also suffered because of acquisition executives' limited ability to effect cultural changes.*

After three decades of attempts by the Office of the Secretary of Defense to obtain realistic assessments of program status and unbiased cost estimates to complete, it is clear that delays in obtaining candid assessments will continue until the conflict in program manager roles and responsibilities is resolved. Effective management of the acquisition process means that the Under Secretary of Defense (Acquisition and Technology) [USD(A&T)] must create incentives that reward realistic reporting. To do so, he must have the authority to control assignments, training, and promotion of the professional managers necessary to operate the acquisition process. The past three decades have demonstrated that the military services are unable to address this problem because program sponsorship and program advocacy places them in a position that often conflicts with reporting realistic program status. The solution can only be found at the level of the Secretary of Defense and the Under Secretary of Defense (Acquisition and Technology).

RECOMMENDATION #1: The Secretary of Defense should direct the military services to transfer to the Under Secretary of Defense (A&T) operational control of their acquisition organizations and detach to the Office of the Under Secretary, the military and civilian billets and personnel associated with those organizations. Irrespective of whether the current service acquisition organizations remain separate from each other, they should be placed under the direct control of the Under Secretary of Defense (A&T), who will have both assignment authority and promotion authority for military and civilian personnel assigned to the acquisition corps.

The changes should produce an unambiguous chain of command for assignment of responsibility and accountability from the USD(A&T) to the service acquisition organizations and their program managers. Over the next several years the changes should

also produce top to bottom management by a corps of trained and experienced professional acquisition managers, led by individuals at the top who have actually experienced life on the line.

Two purposes served by an effective chain of command are: (1) providing direction to the enterprise, and (2) establishing the free flow of timely and accurate information--both up and down the chain.

Under the recommendation described above, the military departments will retain the responsibility for determining requirements and programming resources to meet those requirements. The Acquisition Program Baseline (APB) will serve as a contract between the USD(A&T) and the military user. The USD(A&T) will have final responsibility for determining the cost of a proposed system acquisition. The military departments will need to provide funding to the baselined cost, or alter requirements.

Once this change has been made, the Under Secretary of Defense should make clear by public statements and through the use of assignments, transfers, and promotions, that candor and realism in reporting will be rewarded. Most program managers today do not have that assurance.

Some may argue that statutory changes will be required before this transfer of authority can be established. Title 10, United States Code, states that each secretary of a military department has responsibility for equipping the force (to include research and development). However, even if the USD(A&T) has direct control over the acquisition workforce assignments and promotions and a direct reporting chain to program managers, the Service Secretaries can retain responsibility for initiating the acquisition program process to equip the forces, formulating acquisition budgets, and making priority decisions among acquisition programs competing for scarce resources. The services can also retain responsibility for operational test and evaluation; they would become "customers" who submit orders for equipment to an acquisition organization charged with obtaining this equipment within agreed-to cost, schedule and technical performance parameters. Indeed, this type of practice occurs today: the Army is the single manager for acquisition of conventional ammunition within DOD, while the other Services continue to establish their ammunition requirements and budgets.

Managers can only function as well as the system in which they work allows them to operate. A fundamental problem in defense acquisition is that there are too many oversight organizations and personnel between the level of the government program manager and the Under Secretary of Defense. As long as senior military officers control the future assignments and promotions of program managers, program advocacy is likely to prevail over objective assessments and realistic cost estimates.

ISSUE #2. BURDENSOME OVERSIGHT AND REVIEWS

Oversight is necessary when dealing with public funds, but excessive, uncoordinated oversight is wasteful and burdensome for government and industry alike. Excessive oversight also encourages unnecessary confrontation and suspicion between government and industry. The lack of credible information on program status, described in issue #1, has contributed to increased oversight by the Congress, the General Accounting Office, the DOD Inspector General, and the staffs in the service headquarters.

Virtually all government and industry acquisition managers described time-consuming, costly, and at times redundant oversight by organizations outside the program management office and the DPRO. At times, this outside oversight and review is motivated by a conscientious attempt to add value. However, the large number of oversight managers between the level of the service program manager and the Under Secretary of Defense results from an effort to collect information to enable each higher level of management to be prepared for any questions that may be asked about a program.

RECOMMENDATION #2: The Secretary of Defense should direct the DOD oversight organizations cited above to reduce their oversight in those situations where a contractor and the government program manager can demonstrate that they have established a reliable process for reporting program status and realistic estimates to complete.

RECOMMENDATION #3: The Under Secretary of Defense (A&T) should direct that all government oversight contacts with a program office and its contractors be coordinated through a position to be designated within the Office of the Under Secretary of Defense (A&T).

RECOMMENDATION #4: The Under Secretary of Defense (A&T) should explore the causes of extensive GAO oversight audits and correct their causes wherever possible.

RECOMMENDATION #5: The Secretary and Under Secretary of Defense (A&T) should take strong action to defend program managers from inappropriate interference by outside organizations and condemn the use of hindsight knowledge to criticize program management performance.

**ISSUE #3.
DEFICIENCIES IN
ACQUISITION
QUALIFICATIONS
AND TRAINING**

Culture is the integrated pattern of behavior that reflects an institution's values: how the people in the organization think and how they behave. These values do not come from organization charts or policies, and they do not come from plans and strategies. They come from managers, from training programs, and from incentive systems. Understanding this concept is key to understanding the defense acquisition process and how it operates.

Government and industry managers alike describe a pressing need for a more professional, highly trained acquisition corps. The 1990 Defense Acquisition Workforce Improvement Act (DAWIA) (10 U.S.C. 1701 et seq.) established minimum education, training and experience requirements. Since the passage of DAWIA, the Defense Department has made a number of improvements, but

much remains to be accomplished. Experienced government and industry managers believe the standards for program management skills and experience remain far below what is needed. Four years after the enactment of DAWIA, most government acquisition managers and their industry counterparts report that many government managers are not adequately prepared for acquisition assignments. As illustration, they cite lack of familiarity with lessons learned on prior programs; unfamiliarity with industry practices; and insufficient skill in using the tools of financial management. Government and industry practitioners perceive an urgent need for more carefully programmed career management and more practical training comparable to that now provided for combat arms officers and for industry acquisition managers.

Industry managers pointed out that senior military officers in acquisition assignments are usually highly intelligent, great at leadership, and able to get along well with others, but not sufficiently well trained or experienced in acquisition assignments. When they move into acquisition jobs, they often encounter, for the first time in their careers, responsibility without commensurate authority, and a requirement for substantial technical knowledge of engineering development programs. Several industry managers expressed the view that the military chiefs of staff usually do not take acquisition as seriously as they take operations, or for that matter, as seriously as they take the legal corps or the medical corps in their services--even though the latter two corps, unlike the acquisition corps, come already equipped with trained and qualified forces.

Government and industry managers also believe it is vital that government acquisition managers have a series of progressive assignments, first to small programs, then to larger, more complex programs, as is customary in industry. As a minimum, prospective program managers should have one or more assignments as a program office division chief and/or as deputy program manager, prior to assignment as program manager of a major program. Repeat assignments as program manager should be the rule rather than the exception. During the past two years, the Defense Department, particularly the Air Force, has made a number of significant improvements in acquisition career management. Nonetheless, the Defense Department culture needs to undergo further changes (in assignment duration, promotions, experience and training) to create a truly professional acquisition corps.

Short-term acquisition assignments continue to cause instability and changes to acquisition programs. This in turn creates uncertainty for contractors and clouds accountability for program performance.

In fiscal year 1994 the average tour of outgoing program managers was 35.7 months, down more than 18% from the average 43.7 month tour in 1992. (The 35.7 month average is even less satisfactory than it appears, since it includes several program managers with tours greater than 48 months, including one of 55 months and one of 80 months.) One cause for the short tenure is the high number of retirements of military officers in program management and DPRO positions. Other, less common causes are promotions and "changes for the good of the service."

Notwithstanding a recent, sharp increase in the number of personnel sent to government acquisition courses, most government and industry managers are disappointed with the quality of government acquisition training. Government managers made frequent references to the heavy emphasis on communicating rules and regulations rather than building business management and judgmental skills in much of their acquisition training. Practitioners expressed a strong need for more practical training in lessons learned, in dealing with the dilemmas encountered in acquisition programs, and in developing skills required to work effectively with contractors. Supplying this training does not entail costly or sophisticated computer programs or simulation exercises; it requires the preparation of materials to be read or viewed, and scheduled time for prospective program managers to question and discuss with peers and with experienced acquisition managers the typical acquisition problems encountered, and promising approaches to mitigating the harmful effects of problems once they arise.

Fine tuning the current approach to acquisition training will not produce the needed changes. The creation of a professional acquisition corps requires a revolution in acquisition training. The "lecture and vugraph" approach to training has been found wanting in every profession, from medicine, law, and business, to aircraft piloting, professional sports, and combat arms. Professional training requires the opportunity to question, discuss, and *practice* the skills one is expected to perform in a profession. It also requires that lessons learned from actual experience be collected systematically, communicated, and practiced as part of one's preparation for the profession.

RECOMMENDATION #6: The Under Secretary of Defense (A&T) should exercise aggressive leadership in career management, creating a truly professional acquisition corps, requiring prospective program managers to have preparatory assignments in which they:

- develop skills in translating military requirements into program specifications, in understanding the reasons for changes in specifications, schedules and funding, and in minimizing these changes; and
- develop an understanding of industry incentives and practices, learning how to deal with situations in which government and industry share the same goals as well as situations in which they have differing goals.

RECOMMENDATION #7: The Under Secretary of Defense (A&T) should exercise the authority currently vested in his office to:

- establish incentives (e.g., attractive career development paths and promotion rates at least comparable to those of combat arms) to ensure that the acquisition corps attracts and retains capable, outstanding military officers and civilians with experience commensurate with the technical complexity and major responsibilities associated with managing multi-billion dollar engineering development and production programs.
- establish and enforce processes to vigorously implement the authorities identified in Paragraph E, DoDD 5134.1, "Under Secretary of Defense for Acquisition (USD(A))," dated September 30, 1992, with particular emphasis on the assignment, reassignment, and training of key acquisition personnel.

RECOMMENDATION #8: The Under Secretary of Defense (A&T) should direct the Defense Acquisition University (1) to collect lessons learned from prior and ongoing acquisition programs [describing successful approaches, problems, and failed approaches] and (2) to use these lessons learned in practical training programs for prospective program managers. Such programs should also be designed to convey a working knowledge of the ways to conduct effective oversight of contractors without imposing excessively detailed reporting requirements.

CRITICAL ISSUES IN THE DEFENSE ACQUISITION CULTURE

*Government and Industry
Views from the Trenches*

I

INTRODUCTION

STUDY METHODOLOGY

Interviews with eighty government and industry managers provided the primary basis for this study. Follow up questionnaires completed by 89 percent of the interviewees supplemented the interviews. Participants included:

33 defense industry managers:

- 25 program managers/general managers
- 8 vice presidents or senior managers of contracting/procurement

47 government managers:

- 14 flag officers currently or recently in acquisition management positions (including 11 current or former program managers)
- 11 program managers (current or recent, not flag officers): nine O-6s, one O-5, one SES
- 6 senior acquisition/oversight managers, above the level of the program manager
- 3 directors of contracts
- 8 program office division chiefs or senior government acquisition managers/analysts (2 USN, 2 AF, 1 USA, 1 LMI, 2 GAO)
- 5 DPRO commanders

Government managers selected for interviews were recommended by senior acquisition managers (current or recent) from the Army, Navy, Air Force, or the Office of the Secretary of Defense. Industry managers were recommended by government acquisition managers and by senior officials of the American Defense Preparedness Association.

Each interviewee was given a description of the questions to be covered, usually in advance of the interview. (A copy of the questions is included in Appendix A.) Interviews lasted between one-and-a-half and two hours and were conducted on a not-for-attribution basis. Participants spoke as individuals, not as representatives of government or industry organizations.

Interview comments dealt with a variety of topics related to acquisition roles and responsibilities. The most frequently mentioned topics are listed below as numbers one through four, with less-frequently mentioned topics listed as numbers five through nine.

1. Roles and responsibilities of government program management
2. Government oversight of contractors and programs
3. Qualifications of government acquisition managers
4. Training of government acquisition managers

5. Incentives in government program management
6. Bureaucratic risks in government program management
7. Organizational structure for defense acquisition
8. Government program manager freedom to exercise judgment and to make tradeoffs
9. Other (e.g., obstacles to reform, Congress, government regulations, commercial practices)

This report deals only with the most frequently mentioned topics (1 through 5). Topic five (incentives) is included with roles and responsibilities for purposes of our analysis.

Individuals from the following organizations contributed their views to this study:

Aerospace Corporation
Aerospace Industries Association
Air Force Materiel Command
American Defense Preparedness Association
ARINC Research Corporation
Army Materiel Command
BDM Federal Corporation
Boeing International Company
Center for Strategic and International Studies
Defense Contract Management Command
Defense Systems Management College
GTE Corporation

Hughes Corporation
Lockheed Corporation
Lockheed Sanders Corporation
Logistics Management Institute
Martin Marietta Corporation
McDonnell Douglas Corporation
Naval Sea Systems Command
Northrop Corporation
Office of the Secretary of Defense
Office of the Secretary of the Air Force
Office of the Secretary of the Army
Raytheon Corporation
Rockwell International Corporation
Sikorsky Aircraft Corporation
Sundstrand Corporation
TASC, Inc.
TRW, Inc.
United Technologies Corporation
U.S. General Accounting Office
U.S. Senate
Williams and Connolly

The government and industry managers impressed us with their sincerity, intelligence, candor, and interest in improving the acquisition process. The interviews reinforced our respect for those in government and industry who devote their careers to acquisition management. There is no doubt that these individuals work diligently to perform their jobs, often despite (on the government side) minimal formal preparation for their assignments, second guessing of their decisions, and an incentive system that offers substantial risks and modest rewards.

Virtually everyone associated with this study acknowledges that the defense acquisition process produces the most advanced weapon systems and electronic systems in the world. In that sense, the acquisition process is not broken. Participants also acknowledged, however, that major acquisition programs cost hundreds of millions of dollars more than is necessary and take years longer to conduct than is reasonable. It is only the immense economic strength of the United States and its several hundred-billion-dollar defense budgets that have permitted the development and production of impressive advanced-technology programs while absorbing

cost overruns typically in the range of 20 to 40 percent and more. Now that the defense budget has declined and is programmed to decline further, it is vital that the acquisition process become more efficient and require shorter periods of time.

Acquisition managers agreed to be interviewed for this study because they want desperately to see major improvements in the acquisition process. They hope their views will be seriously considered by senior policy makers in the Pentagon.

II
PRACTITIONER VIEWS ON
ROLES AND RESPONSIBILITIES
OF GOVERNMENT PROGRAM MANAGEMENT

ANALYSIS OF
INTERVIEW COMMENTS

Practitioner comments on the topic of roles and responsibilities of government program management are contained in Appendix B, Part 1 under the three subheadings listed below:

- A. The Formal Roles and Responsibilities of Government Program Management
- B. The Advocacy Role of the Government Program Manager
- C. Overlap between Government and Contractor Program Management

At the beginning of this study, we were uncertain what we would discover on the topic of roles and responsibilities of government program management as distinct from contractor program management. As the interviews began to accumulate, however, the discussion of roles and responsibilities disclosed a serious problem, particularly in discussions with government managers. Interestingly, the problem did not deal with overlap between the roles of government and contractors. Rather, it dealt with how the formal roles and responsibilities of government program management were translated into practice and the capabilities for carrying out those roles and responsibilities.

**A. FORMAL ROLES
AND RESPONSIBILITIES**

The formal roles and responsibilities of defense program managers are well documented in Defense Department directives, instructions and manuals. Congress and the Office of the Secretary of Defense hold the view that the role of the government program manager is to translate government requirements into contractor specifications and to deal with contractors in an arm's length buyer-seller relationship. Government program managers and contracting officers are expected to provide contractors with incentives to complete programs on schedule and within budget. Contractors should be held accountable for what they contract to develop and produce. Relief from contractual commitments requires, in most circumstances, consideration from the contractor. The government program manager is expected to:

- Establish firm and realistic system and equipment specifications;
- Identify high-risk areas;
- Explore schedule, cost, and technical performance trade-off decisions;
- Select the best technical approaches;
- Establish firm and realistic schedules and cost estimates;
- Ensure that the government obtains fair value for resources expended on the program;
- Work with the contracting officer to represent the best interest of the government with contractors; and
- Assess regularly the schedule, cost, and technical performance status of the program and report program status accurately to higher levels in the acquisition management structure, providing early identification of deviations from plan.

In practice, most government program managers and the military services attempt to adhere to the above steps as long as they do not produce bad news that endangers the continuing existence of programs. Many government managers believe that their prime purpose is to move programs through the acquisition process, with a wide tolerance for deviations from schedule, cost, and at times, technical performance.

Government program managers' understanding of the *formal* roles of government program management tend to coincide with the views held by Congress and the Office of the Secretary of Defense as expressed in DOD program management manuals, instructions, and directives. Government managers interviewed in this study described the formal program management role in the following terms: (See Appendix B, Part 1 for a complete set of interview comments on roles and responsibilities.)

The government program manager is responsible for seeing to it that the government gets what it wants, needs and can afford from the private sector. The government program manager is responsible for representing the government attitude, policy, and designs.

The government program manager's first priority is guardian of the public trust, insuring that the funds are spent wisely and that full value is obtained for the government.

Program management oversight of contractors is performed to insure that the contractor does not spend time and resources unnecessarily. Government oversight includes tracking the execution of program technical performance achievements, schedule achievements, financial achievements, and performing independent analyses, on a timely, repetitive, basis.

A government program manager needs to coordinate the customer side of the house. Many organizations need to be reconciled.

Defense industry managers hold similar views of the formal role assigned to government program managers. A sampling of comments by industry managers is presented below:

The government approach to program management is to obtain, from contractors, recurring written reports on schedule, cost, and technical performance that enable the government to identify ~~current~~ or impending problems.

The government program manager needs to:

- 1. Define what needs to be done. What needs to be delivered. What the product must do.*
- 2. Obtain the funds required to do the job.*
- 3. Provide as much stability for the program as possible. Minimize changes and stabilize resource levels.*

4. *Provide the necessary interface between the acquirer, the contractor, and the user.*
5. *Set milestones and schedules.*
6. *Provide oversight and day-to-day contact with the contractor.*
7. *Make independent judgments. Monitor progress. Look at what is happening and the progress that is and is not being achieved.*
8. *Develop a good rapport between yourself and the contractor program manager. The key is trust. But trust has to be earned by the government and by the contractor.*

In combat operations, the military commander is generally given the authority and latitude to do whatever is necessary to accomplish a mission. That is frequently not the case in defense acquisition. Government program managers are often given conflicting tasks and incentives along with firm budgets, schedules, and technical performance specifications. There is little discretion to make tradeoffs. In short, the system within which the program manager works often precludes carrying out the job.

Most program management authority is retained by the Office of the Secretary of Defense. The program manager is caught between the Office of the Secretary of Defense, on the one hand, and his service superiors, who control his assignments and promotions and who have gone on record stating that the program is of major importance to the military service and can be developed and produced for a specified dollar amount.

Once the program sponsors in a military service decide that they need a particular acquisition program, they often believe that they must understate its cost to obtain approval of the service headquarters, the Office of the Secretary of Defense, and the Congress.

When the program manager discovers that his program will cost far more than estimated, he is faced with a dilemma: should he submit a realistic report indicating that a significant conflict exists between the approved estimate and what the program requires? (a report that will weaken support by Congress and the Office of the Secretary of Defense, and possibly cause cancellation of the program). Or should he submit an optimistic report, based on a conclusion that it is too early to report the incipient cost overrun, and hoping that the program will be changed or that he will be transferred to another assignment before having to reveal the oncoming cost overrun?

A government program manager stated the problem in the following terms:

A government program manager must perform on a stage where there are a lot of props. But the props are frauds. The regulations say that he has the authority and the resources to unilaterally exercise judgment without risk to life or limb. In reality, he has authority to lean on the contractor or to report problems up the chain of command. How successful he is depends on:

- program stability and minimum changes*
- consistency and adequacy of funding*
- a structured, orderly transition from development to production*
- the right kind of contract*
- the right contractor*

Most government managers expressed skepticism about acquisition reform proposals that call for program managers to have the freedom to exercise more judgment. Whenever this topic arose, government managers expressed concern that the staff in the military service, DCAA, OSD, Congress, GAO, and the DOD Inspector General would second guess their decisions and actions.

B. THE ADVOCACY ROLE OF THE PROGRAM MANAGER

The program manager's advocacy role was a topic mentioned frequently during the interviews. A small number of government managers expressed the view that government program managers should *not* be advocates for their programs. Their views tended to fit the model of a program manager being an objective, responsible administrator, assessing progress, reporting and explaining problems, and taking action to solve or mitigate problems.

Most government managers, however, described the practice of government program management as being at variance with the formal role. They expressed the view that the advocacy role is, in reality, an important part of being a government program manager. A feeling of responsibility for program advocacy appears to be the primary factor causing government managers to search aggressively and optimistically for good news relating to their programs, and to avoid bad news, even when it means discrediting conventional

management tools that forecast significant negative deviations from plan. Avoiding bad news often takes the form of not reporting projected cost growth until the problems become obvious. This results in program cost overruns and Defense Department overprogramming of development and production programs.

Most interview participants see the government program manager as caught in a dilemma. The program manager is told that his formal responsibilities require realistic reporting and fiduciary responsibility for public funds, yet he is also told that his primary responsibility is for program success--meaning moving the program through the development cycle, into production. These managers believe that if their program is cut back or canceled, their reputations and careers will suffer. Consequently, good news carries a high premium, and bad news is not acceptable until it becomes unavoidable.

Program cost increases and schedule delays, two of the most prevalent acquisition problems, are among the oldest and most visible problems associated with weapon systems. Program cost increases of 20 to 40 percent have been common for major weapon programs, with numerous programs experiencing increases much greater. In April 1994, the U.S. General Accounting Office reported that the potential total cost growth on a number of current major Navy systems was as much as 100% (GAO/T NSIAD 94-171). **A recent RAND study of weapon system cost growth prepared for the Air Force concluded that there has been no substantial improvement in the average weapon system cost growth over the past 30 years, despite the implementation of several initiatives intended to mitigate the effects of cost risk and the associated cost growth. (MR-291-AF 1993) In July 1994 the Congressional Budget Office and the U.S. General Accounting Office reported \$21.5 billion in projected cost overruns in the 1995 Five Year Defense Plan (FYDP) (GAO/NSIAD-94-210).**

A study of 64 completed weapon systems contracts extracted from the Defense Acquisition Executive Summary showed that cost overruns projected by the contractor and government were excessively optimistic throughout the lives of the contracts examined. These results were found insensitive to contract type (cost, price), contract phase (development, production), the type of weapon system (air, ground, sea), and the military service (Air Force, Army, Navy) that managed the contract. (Major David Christensen, USAF, Defense Acquisition Quarterly, Winter 1994)

C. Paul Beach, the Inquiry Officer for the A-12 Administrative Inquiry that led to the program's cancellation, reported that very

unfavorable projections regarding the program's cost were suppressed to protect the program. (A-12 Administrative Inquiry [Report to the Secretary of the Navy, November 28, 1990])

The following sample comments by government managers express their views of the advocacy role. (See also Appendix B, Part 1 for a more complete set of comments.)

The government program manager's primary focus is on getting the hardware delivered. This focus places high value on good news all the time--a task that is more difficult because of the unrealistic budgets created at the beginning of the program to obtain the required approvals.

The program manager is there to be a proponent of the system. Show me a program manager who is not a program advocate and I'll show you one who is about to lose his program.

The mixed signals in the current acquisition process creates an issue of integrity for the people operating in it.

The environment is such that it is risky for a government program manager to bring in bad news. If a program manager is told he is responsible for the success of a program, he understands he needs to make it a success.

If the program does not make it through the hurdles, my chances of promotion take a nose dive.

The government program manager for the [program name deleted] reported to the Under Secretary of Defense: "Everything is under control. We can do it. "The program is going well." His briefing identified no real issues. It was like a slide show. Everything they told the Under Secretary was accurate. It's what they didn't tell him that presented the big problems. Why does this occur? Because [military service] officers want the program even more than the contractor wants to sell it to the government.

The entire DOD acquisition process is heavily biased towards excessive optimism on the part of both government and industry managers. The desires of the Services are greater than their budgets. The Services are always trying to put ten pounds in a five-pound bag. If industry quoted realistic estimates, as contrasted to optimistic, they would always lose.

Today, the bottom line for the program manager is getting the program through the wickets -- through the acquisition process, irrespective of the schedule and the cost.

The government program manager's only focus is to deal with the day-to-day problems of getting the ship built. Just get the job done. Someone else takes care of costs.

When the Defense Department puts a program manager in charge of a program, they should do so with the explicit charge that the program manager should report bad news as well as good news. He has to stand up and be counted. We need to make changes in the incentive system and give the program manager more independence.

The government program manager is told that he is responsible for everything. It is his job to make his program a success. If he fails, he will be punished.

Excessive program advocacy in defense acquisition causes people to withhold information on problems.

Government managers also referred to incentives that reinforce the advocacy role. (See also Appendix B, Part 2.)

If the program does not get through the wickets, the government program manager will not get promoted. At best, the assignments that the government program manager will be offered are such that he would probably prefer to retire. A loser is just not welcome in the service.

Having government program managers report to operational commanders places them in a position of inevitable conflict in roles.

The promotion in rank of the program manager is based, in part, on how well he gets the program through the acquisition wickets. So the program manager will tolerate declining performance and increasing cost if it will reduce the risk of program cancellation.

There is strong incentive to postpone problems. You don't want to have a problem on your watch -- and you will soon be transferred to another job anyway. If I just sit tight for another six months, I'll have my orders, I'll be gone.

Most program managers don't want to take the risk. they still want to climb the career ladder. People don't want to risk having the Inspector General come in and look over their shoulder. Program managers make personal judgments at great personal risk, with little likelihood of reward.

The advocacy role of government program managers was described in similar terms by **defense industry managers**:

The government program office emphasis is directed at protecting the program's continuation rather than the taxpayer's interest.

The government program manager is concerned about getting money from higher levels, and keeping support for the program.

Today program managers are frightened and they delay identifying problems. Suppressed information also led to the Challenger accident. Problems were not reported because of concern that reporting them would delay the program. Suppressing problems should be the basis for the first order of firing people.

Government program managers are told they are responsible for the success of their programs. Success means getting the program through the wickets on budget and on schedule. The program manager must keep selling the weapon's capabilities above him in the government. He must keep the program moving through the boards that approve milestones one, two, three. This means keeping people up the line sufficiently well informed to be comfortable with the program and to keep it moving through the wickets.

The government program manager job requires a lot of cheerleading and salesmanship for the real decision maker -- the DAB process.

Many senior officers in acquisition still think that their primary job is obtaining the funding and support required for their programs.

Government program managers have a tendency to allow ECPs to stack up and to create a backlog. Program managers are often so worried about cost increases endangering their programs that they tend to ignore contractor ECPs, put them in a drawer and not act on them. They accumulate and then later the balloon bursts and everyone is surprised by the sudden cost increase. This often happens where there is a large program management office. Engineers associated with the government office are always developing ideas on how to make the program better. They work together with people in the contractor's plant and the attitude they have is: "Oh, the contractor can absorb that." They often do not understand the cost of changes.

The government program manager's primary objective is to keep the program alive until the product is delivered.

We tell government managers officially and in documents not to be program advocates. But in reality we tell them, you better be an advocate. It's crazy, and they know it's crazy.

Today any program that smacks of having a problem gets shot and the people in the program get shot.

Industry managers also described incentives that reinforce the advocacy role. (See also Appendix B, Part 2.)

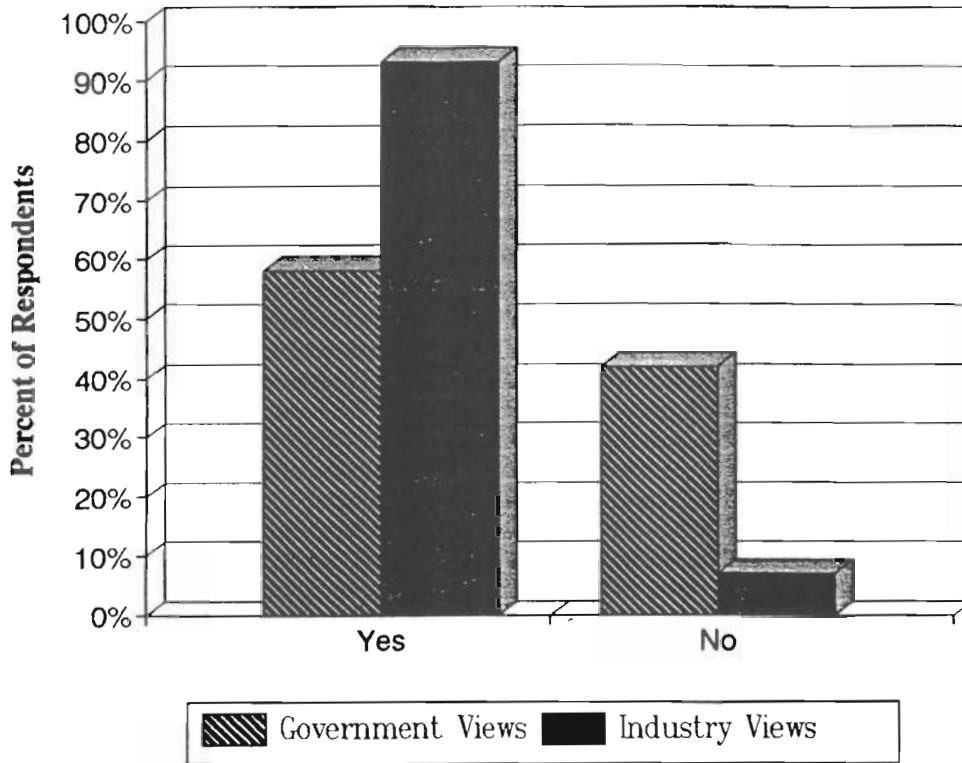
You put people in government program management jobs and tell them what you want them to do, and then give them an incentive system that punishes them for doing what you tell them and rewards them for postponing problems and getting a program through the process irrespective of cost and schedule. What do you think you will get? You get what you reward.

The program manager's boss, like the program manager, has significant pressures to make himself look good over a period of no more than two to three years. In industry, the normal checks and balances apply to a much longer period of time.

If you have a long-standing relationship with your boss, you let him know about problems and you do not cover them up.

The graph on the following page highlights the views of government and industry managers on the risks to the program of reporting bad news (i.e., cost growth, schedule slippage, technical performance shortfall) as reported in the questionnaires.

**REPORTING BAD NEWS UP THE CHAIN OF
COMMAND POSES SIGNIFICANT CAREER RISKS TO
GOVERNMENT PROGRAM MANAGERS:**



	<u>Govt.</u>	<u>Indus.</u>
Yes	58%	93%
No	42%	7%

Commentary: Virtually all industry managers (93%) and more than half the government managers (58%) agree that reporting bad news up the chain of command poses significant career risks to government program managers.

C. OVERLAP BETWEEN
GOVERNMENT AND CONTRACTOR
PROGRAM MANAGEMENT ROLES

Although there is some overlap between the roles of government program management and contractor program management on matters such as planning, evaluating progress, and responding to inquiries about the program, these overlaps were not seen as major problems. Overlap that was troublesome was cited at levels below the program manager, where a government engineer or materials specialist from a functional office dealt with a counterpart in the contractor organization and obtained working-level agreement to a change that had not been approved by the program change control board. Comments made about overlapping roles and responsibilities during the interviews include the following. (See also Appendix B, Part 1.)

Overlap is not a big problem. Each side has their own decisions to make.

There is little duplication or overlap between what the government program manager does and what the contractor program manager does.

The delineations between the government program office, the DPRO and DCAA are well planned.

There is bound to be some overlap. Some people want to get into everything. The overlap problem is partly fueled by fear of investigation by the Inspector General, and a desire to protect oneself.

When you talk about overlapping roles and responsibilities between government and industry, you have to consider that the roles are different. They often do not have the same social objectives.

Industry has bottom-line profit. Government does not. They can never be the same. Government is the steward for taxpayers' money. They must have a higher standard than industry. Government must ask, Is the project achieving a value for society? Government must be concerned about the risk factor, and the risk factor has gone up sharply -- bureaucratic risk. The penalties have become gigantic.

Government emphasis is on fairness to all. Government takes the lead on all worthwhile purposes: affirmative action, environmental cleanup, use of recycled products, support of small business, women-owned business, and minority businesses. Government promotes and supports blood drives, Red

Cross, veterans, Civil Service, hire the handicapped, child care facilities.

The focus of the defense acquisition process is on cost and not on value. And it is on fairness to all, on social agendas – e.g., favoring minority businesses and disadvantaged businesses. We will spend an inordinate amount of money to ensure that we do not spend a dollar incorrectly. A lot of contractor workload is driven by information government requires to manage the contractor's performance. Ideally government and contractor information is the same.

CONCLUSIONS AND RECOMMENDATIONS ON ROLES & RESPONSIBILITIES

Although the Defense Department has produced hundreds of pages of manuals, guides, directives, and instructions describing program management roles and responsibilities, most government managers encounter a dilemma in deciding between

- (a) reporting realistic program status, estimates to complete, and incipient problems to their superiors, and
- (b) doing whatever is necessary to avoid program cancellation, keeping programs funded and moving through the acquisition process.

Where (a) and (b) are compatible, there is no confusion of roles. Where they conflict, as is often the case on large programs that have been underestimated and underfunded, program managers face a dilemma. Reporting realistic, objective status is often seen as endangering the continuation of a program supported by a military service (programs often considered "essential" by the service). Hence, government managers must often decide whether the "success" of the program, meaning its continuing existence and movement through the acquisition process, takes precedence over reporting realistic program status and problems. Program cancellation or reduction in scope is usually perceived by program managers and their service superiors as failure.

Most government program managers, utilizing the skills of their staffs and DPROs, are able to read the signals indicating when their programs are about to experience technical, schedule, or financial difficulties. They are able to report these signals promptly if the penalties for doing so are removed. As it is, program

advocacy often prevails over realistic reporting in the hope that "things will get better" later.

From top to bottom, management staffing of DOD acquisition organizations is unstable. Senior level instability is a consequence of the political system that the Defense Department shares with all Executive Branch agencies. Although management below the political level in civilian agencies is stable, the career-level management staffing of DOD is highly unstable. Below the DOD secretariat, most managerial positions of consequence are held by military officers who are rotated on a two-to-four year basis. No commercial enterprise could tolerate this kind of recurring, top to bottom management turmoil.

The acquisition career of a military officer often ends at a point that the private sector considers very early for retirement (i.e., mid- to late-forties). It is also a time when the officer is beginning to accumulate the extensive experience required to exercise good judgment in dealing with the dilemmas inherent in the acquisition of large, complex, development programs.

Government civilians, by contrast, tend to become proficient in a single discipline, but their career progression is restricted by the accurate perception that they typically cannot aspire to being the "boss." This combination of circumstances results in a set of sub-cultures that hamper communication and make meaningful change difficult.

The future of a government acquisition manager is subject to review and approval by the senior officers of the military service who have committed themselves to obtaining the products of their service's acquisition programs within a wide range of tolerance with respect to costs and technical performance. Consequently, accurate reporting on the status of programs often does not occur when there are serious problems, because problems have an adverse effect on OSD and congressional support for a program. If a program manager's future assignments and promotions depend on the approval of the senior officers of his service (as they currently do), the acquisition process usually leaves him no alternative to being a program advocate if he wishes to remain and progress within his service. It is very difficult to expect a program manager to blow the whistle on his own service when the senior officers who evaluate his performance and who control his future have underestimated and overpromised the program from the beginning. Too often his course of action is to go along with the game. **This is the reality described by many government managers as well as by managers in defense contractor organizations.**

This problem is particularly severe in times of declining budgets, when there is intense competition among contractors and among the military services. Today the defense industry and the military services are in a survival mode.

In early 1993 the U.S. General Accounting Office completed a comprehensive study and published a report on the causes of persistent acquisition problems.¹ They concluded that some problems occur not because they are inadvertent, but because they are encouraged. For example, while some problems in cost estimating are due to flaws in methodology and to unforeseen technical problems, the more pervasive problem is lack of realism; undue optimism does not occur by chance or because estimators lack know-how, but because it helps programs gain approval and survive.

The GAO also concluded that performance shortfalls, schedule delays, and cost increases are the logical consequences of the acquisition culture. The acquisition process operates as it does, they pointed out, because participants are rewarded by the process. While individual participants see their needs as rational and aligned with the national interest, collectively, these needs create incentives for promoting programs and encouraging undue optimism, parochialism, and other compromises of good judgment. The findings of this study reinforce those of the GAO.

The GAO pointed out that program sponsors within the military services, when faced with challenges, must staunchly defend their programs to ensure their continuance. This discourages the development, or at least the dissemination, of realistic information that discloses problems, because any sign of weakness can cause the Office of the Secretary of Defense, the Congress, or even the service to take funds from the program. Similarly, critical information developed by oversight organizations, such as the DOD Cost Analysis Improvement Group, the Director for Defense Operational Test and Evaluation, the Inspector General, the GAO or the press, will likely be downplayed and rebutted by the program sponsors. Again, the sponsors' reactions are rational, because they realize that bad news can tip the scales of power against the program, leading to funding cuts and possible program termination.²

¹*Weapons Acquisition: A Rare Opportunity for Lasting Change*, GAO/NSIAD-93-15, p.35, 59.

²*Ibid.*, p.47.

It is the consistency of these outcomes--and their imperviousness to reforms, contract types, contractors, acquisition strategies, weapon types, critics, military services, administrations, and Congresses--leads to the unavoidable conclusion that the acquisition process produces what the participants collectively want or are willing to settle for. *Instead of pointing the finger at individual participants, one must keep in mind that they do not act irrationally or with bad intentions. Rather, they do what they believe is right, given the pressures they face.*

It has almost become a cliché to state that the numerous reforms initiated over the years have not had the desired effect and that today DOD faces the same acquisition problems. The success of "reforms"--defined in the larger sense of laws (e.g., The Goldwater/Nichols Act), DOD regulations, outside panels (e.g., The Packard Commission), and recommendations from independent agencies--has been limited not because these reforms embodied bad ideas or focused on the wrong issues. To the contrary, reforms have generally been aimed at correcting the most well-recognized acquisition problems, such as making cost estimates more realistic, reducing the time and cost of acquiring weapon systems, reducing duplication, enhancing program stability, improving the quality of the acquisition workforce, and putting better information in the hands of decisionmakers when they need it.³

The proposals to correct problems have run the gamut of adding controls, increasing management layers, streamlining, and decentralizing. They have often sought coercive, procedural, and organizational solutions to make things happen without necessarily addressing why they were not happening previously. For example, there have been recommendations aimed at improving the realism of cost estimates, but these are difficult to implement when the acquisition process itself does not reward realism.⁴

³Ibid., p.51.

⁴Attempts by acquisition executives to obtain realistic information on weapon programs from the military services have fallen far short of their goals. In 1990, the GAO reported that to protect programs from criticism, the services were reluctant to provide the Office of the Secretary of Defense current program information, such as updated cost estimates [Defense Acquisition: Perspectives on Key Elements for Effective Management (GAO/NSIAD-90-90, May 14, 1990).] In fact, top-level acquisition participants' demands for better program information can intensify the protectionism of program sponsors. [Beyond Distrust: Building Bridges Between Congress and the Executive, a report by a Panel of the National Academy of Public Administration, Jan. 1992.]

These reform measures have not ensured that realistic program information is brought forward in a more timely manner. For example, critical information about the status of the A-12 aircraft program was withheld by the Navy at several key junctures--most notably during DOD's Major Aircraft Review and at the time of a subsequent decision to exercise a contract option on the first production lot. *The underlying cultural pressures that cause such information to be optimistic in the first place have not changed.* The fact remains that optimistic information helps a program proceed, while negative information can hurt a program. Moreover, GAO pointed out that program sponsors, who are conditioned to be proponents of the program, are a primary source of program information. Streamlining or delegating decisions may make the process more efficient, but it will not necessarily lead to different outcomes if the same set of incentives guides decisions. In fact, biases could become stronger if decisions involve fewer individuals whose livelihoods are more exclusively tied to the success of weapon programs.⁵

While proposals have had some success in correcting problems and emplacing a system of checks and balances, GAO found that after initial enthusiasm, support for a reform wanes. *Acquisition reforms have had limited effectiveness because they have not changed the basic incentives or pressures that drive the behavior of the participants in the process. Reforms have also suffered because of acquisition executives' limited ability to effect cultural changes.*

GAO also pointed out that the short tenures typical of high-level DOD acquisition executives make it difficult for them to change the system of incentives because other participants can wait out the implementation of reforms they oppose. Even when acquisition executives take firm stands to restrict specific programs, such as denying funding, they do not have the lasting influence to make their decisions stick.⁶

After three decades of attempts by the Office of the Secretary of Defense to obtain realistic assessments of program status and unbiased cost estimates to complete, it is clear that delays in obtaining candid assessments will continue until the conflict in program manager roles and responsibilities is resolved. Effective

⁵Ibid., p.53-54.

⁶Ibid., p.57.

management of the acquisition process means that the Under Secretary of Defense (Acquisition and Technology) must create incentives that reward realistic reporting. To do so, he must have the authority to control assignments, training, and promotion of the professional managers necessary to operate the acquisition process. The past three decades have demonstrated that the military services are unable to address this problem because program sponsorship and program advocacy places them in a position that often conflicts with reporting realistic program status. The solution can only be found at the level of the Secretary of Defense and the Under Secretary of Defense (Acquisition and Technology).

RECOMMENDATION: The Secretary of Defense should direct the military services to transfer to the Under Secretary of Defense (A&T) operational control of their acquisition organizations and detach to the Office of the Under Secretary, the military and civilian billets and personnel associated with those organizations. Irrespective of whether the current service acquisition organizations remain separate from each other, they should be placed under the direct control of the Under Secretary of Defense (A&T), who will have both assignment authority and promotion authority for military and civilian personnel assigned to the acquisition corps.

The changes should produce an unambiguous chain of command for assignment of responsibility and accountability from the USD(A&T) to the service acquisition organizations and their program managers. Over the next several years the changes should also produce top to bottom management by a corps of trained and experienced professional acquisition managers, led by individuals at the top who have actually experienced life on the line.

Two purposes served by an effective chain of command are: (1) providing direction to the enterprise, and (2) establishing the free flow of timely and accurate information--both up and down the chain.

Under the recommendation described above, the military departments will retain the responsibility for determining requirements and programming resources to meet those requirements. The Acquisition Program Baseline (APB) will serve as a contract

between the USD(A&T) and the military user. The USD(A&T) will have final responsibility for determining the cost of a proposed system acquisition. The military departments will need to provide funding to the baselined cost, or alter requirements.

Once this change has been made, the Under Secretary of Defense should make clear by public statements and through the use of assignments, transfers, and promotions, that candor and realism in reporting will be rewarded by the Office of the Secretary of Defense. Most program managers today do not have that assurance.

Some may argue that statutory changes will be required before this transfer of authority can be established. Title 10, United States Code, states that each secretary of a military department has responsibility for equipping the force (to include research and development). However, even if the USD(A&T) has direct control over the acquisition workforce assignments and promotions and a direct reporting chain to program managers, the Service Secretaries can retain responsibility for initiating the acquisition program process to equip the forces, formulating acquisition budgets, and making priority decisions among acquisition programs competing for scarce resources. The services can also retain responsibility for operational test and evaluation; they would become "customers" who submit orders for equipment to an acquisition organization charged with obtaining this equipment within agreed-to cost, schedule and technical performance parameters. Indeed, this type of practice occurs today: the Army is the single manager for acquisition of conventional ammunition within DOD, while the other Services continue to establish their ammunition requirements and budgets.

Managers can only function as well as the system in which they work allows them to operate. A fundamental problem in defense acquisition is that there are too many oversight organizations and personnel between the level of the government program manager and the Under Secretary of Defense. As long as senior military officers control the future assignments and promotions of program managers, program advocacy is likely to prevail over objective assessments and realistic cost estimates.

BLANK

III

PRACTITIONER VIEWS ON GOVERNMENT OVERSIGHT OF CONTRACTORS

ANALYSIS OF INTERVIEW COMMENTS

Government and industry comments on government oversight fell into two categories:

- A. Oversight of contractors by the government program office and the DPRO
- B. Oversight of programs by organizations outside the government program office and the DPRO

Much of the interview discussions on these topics dealt with oversight caused and/or performed by organizations outside or above the government program office and the DPRO. These organizations include the Office of the Secretary of Defense, the service headquarters, DCAA, the DOD IG, the GAO, and the Congress. Practitioner comments on this topic are presented in the latter part of this section of the report.

A. OVERSIGHT OF CONTRACTORS BY THE GOVERNMENT PROGRAM OFFICE AND THE DPRO

Managers expressed differing views as to whether it is appropriate to reduce government oversight of contractors (as suggested by the DSB report on acquisition reform). Some say *yes*; others say *no*. Most say that it depends on the circumstances. There is considerable wariness among government personnel about the reliability of contractor promises and cost estimates to complete programs in process. Those managers advocating rigorous and detailed oversight frequently make reference to contractors' reporting incorrect information or delaying problem identification.

Government managers pointed out that part of government oversight results from emphasis on fairness to all. Government procurement decisions, by law, must consider a wide variety of government programs, including: affirmative action; environmental cleanup; use of recycled products; support of small business, women-owned business, minority business; and equal access by all qualified contractors. Each program tends to have its own oversight activities.

With respect to oversight by the government program office and the DPRO, comments by government managers were generally sympathetic to proposals to reduce oversight, but most pointed out that the appropriate amount of government oversight is, and should be, situation specific. They point out that it is inappropriate to have rules and regulations that treat all programs and all contractors the same. A number of government managers expressed the view that it is necessary for a contractor to demonstrate consistency and reliability in reporting systems and commitments before it is reasonable for government to reduce its oversight. A sampling of comments by government managers is shown below. (See also Appendix B, Part 3.)

When contractors show me they can be trusted, I will back off.

Oversight all depends on the conditions of the program and the contractor.

If a contractor shows that his commitments are true, we can afford to back off, otherwise not.

Clearly, the government program manager is the steward of government money. Program manager minimum oversight is to insure that the contractor does not drift off and spend a lot of time and resources unnecessarily.

There is a need for a partnership between government and industry in the acquisition process --a partnership based on disciplined trust. But when the trust is violated, government needs to take corrective actions, including the possibility of changing the players.

The DPRO has several roles. He is the program manager's eyes and ears at the contractor plant. He does the general pulsing of the contractor to supplement that of the program management office.

Government and contractor program managers have some differing interests. The government has the taxpayers and declining budgets. The contractor has shareholders, ROI, and the need for profits.

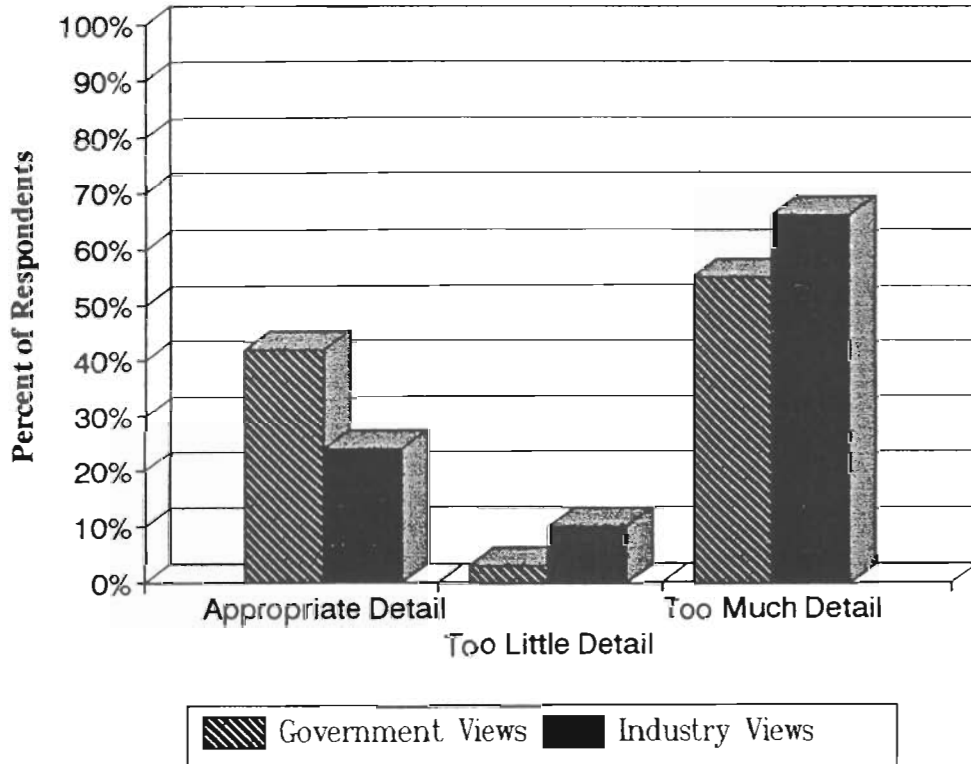
Defense industry managers agreed that oversight should be tailored to the needs of specific contractors and programs. They pointed out that reduced oversight is appropriate if the government program office has a "good strategy, good contractor, stable program and a good information system."

Industry managers expressed concern over the large number of reporting levels, organizations, and people associated with government oversight, especially in large program offices, systems commands, DPROs, and DCAA offices, along with oversight from higher levels within the military services and OSD.

The graphs on the following pages highlight questionnaire responses on the topic of government oversight. The first graph shows substantial agreement among most government and industry managers that the government monitors contractors in too much detail, although a substantial minority of government and industry managers did express the view that the amount of detail is appropriate.

The second graph reflects skepticism by most government managers as well as by industry managers with respect to the accuracy of claims made by contractors in their proposals.

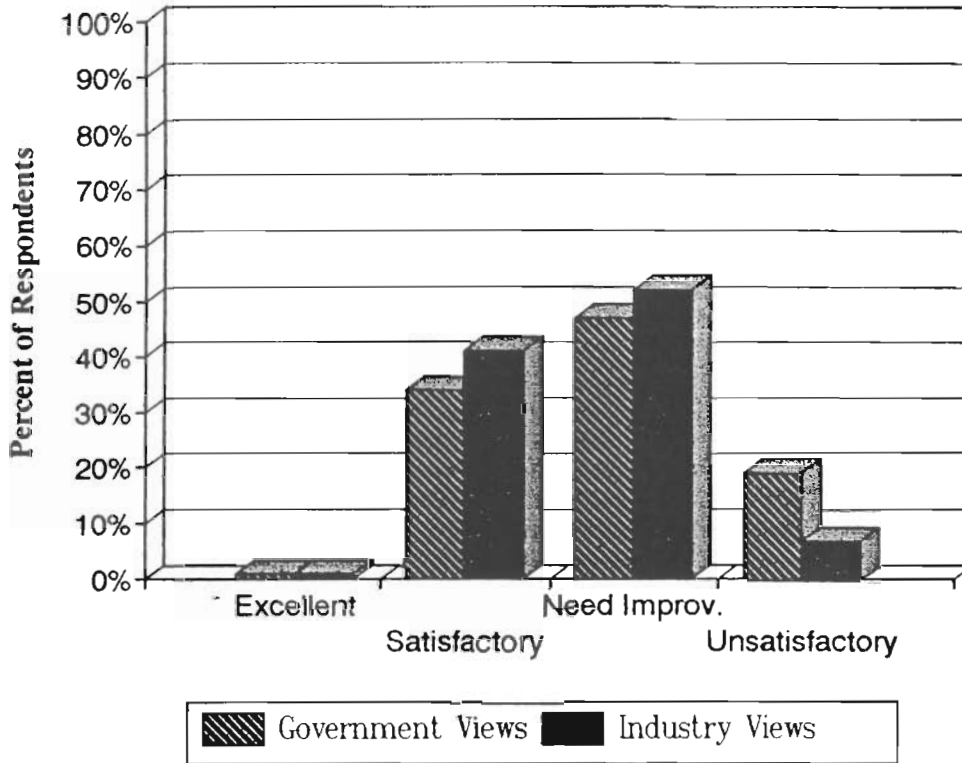
EVALUATION OF THE AMOUNT OF DETAIL WITH WHICH GOVERNMENT MONITORS CONTRACTOR COSTS:



	<u>Govt.</u>	<u>Indus.</u>
Appropriate detail	42%	24%
Too little detail	3%	10%
Too much detail	55%	66%

Commentary: Two-thirds of the industry respondents and 55% of the government respondents believe that the program management office and the DPRO monitor contractor costs in too much detail. Twenty-four percent of the industry respondents and 42% of the government respondents believe the level of detail is appropriate.

**GOVERNMENT AND INDUSTRY MANAGERS
EVALUATE CONTRACTOR PERSONNEL AS TO
HOW THEY LIVE UP TO WHAT THEY CLAIM IN
THEIR PROPOSALS:**



	<u>Govt.</u>	<u>Indus.</u>
Excellent	0%	0%
Satisfactory	34%	41%
Need Improvement	47%	52%
Unsatisfactory	19%	7%

Commentary: Only one-third of government managers and fewer than half the contractor managers rate contractor personnel as **satisfactory** in living up to what they claim in their proposals. Most government managers believe that contractor skills in this regard "need improvement" (47%) or are "unsatisfactory" (19%). Most contractor managers agree that contractor skills in this area "need improvement" (52%) or are "unsatisfactory" (7%).

When pressed to explain their reluctance to reduce government oversight, government managers described a variety of concerns that can be grouped under the following three headings:

1. The need to measure progress reliably
2. Skepticism about contractor promises
3. Contractors buying into programs

Practitioner comments on each of these topics is presented below and in greater detail in Appendix B, Part 2.

1. The Need To Measure Progress Reliably

The following is a sampling of comments on this topic by government managers:

Government needs to determine whether the contractor has a system that produces consistent results.

The government program manager needs to be aware of problems early enough to do something about them.

We need to make sure that progress payments are tied to performance metrics.

Government program managers need to be trained how to read a contract and to be told to read it.

2. Skepticism About Contractor Promises

Comments by government managers included the following:

On fixed price contracts with good specifications, I don't need a lot of oversight if I can enforce the contract.

One has to be prepared for the contractor who is in the business of winning government contracts, being terminated for default, and settling.

Contractors are strongly motivated to delay identification of problems.

Contractors are not open handed in dealing with government when it comes to money.

When contractors show me they can be trusted, I will back off.

The contractor does not always do the things he says he is doing.

At times, the contractor fails to fulfill his part of the bargain.

We find contractors at times do not have the capabilities they claim.

Oversight is all done in response to something that went wrong in the past. So it grows and grows.

If a contractor violates trust, he should be punished, not just have his wrists slapped.

3. At Times, Contractors Buy Into Programs

A sampling of comments by government managers includes:

All too often, contractors either buy in or they don't understand the problem.

Government people often sign a contract knowing they are going to have a cost overrun.

Contractors are more optimistic than we are.

Companies at times underbid, knowing the program will be restructured.

We don't begin with the full cost estimate. We don't tell the whole story.

Industry managers commented on the topic of estimating and reporting costs:

We don't know how to estimate the costs of complicated projects within 15%-20%."

For a complicated program not performed before, boxing in a program manager with firm numbers for technical performance, schedule and budget is not doable.

The time-honored approach to dealing with problems [in defense acquisition] is to postpone them. Reporting a problem often comes at too high a personal cost [to government and industry managers.]

If contractors would do a better job of being honest, they would not have this problem."

Several government and industry managers referred in positive terms to "integrated product teams (IPTs)," describing multi-function teams from government and industry working together to solve problems that arise during the course of engineering development programs. They expressed the view that these teams enabled problems to be solved more readily than in the past. A small minority of government and industry managers expressed concern, however, that IPTs may blur responsibilities between government and industry and thereby reduce contractors' accountability. Another reservation pertained to limiting the use of IPTs to cost-reimbursement types of engineering development contracts, suggesting that these teams would be inappropriate for fixed-price production programs.

B. OVERSIGHT BY ORGANIZATIONS OUTSIDE THE PROGRAM OFFICE AND THE DPRO

Government oversight by organizations outside or above the government program office and the DPRO included oversight by the service headquarters, the Defense Contract Audit Agency, the Office of the Secretary of Defense, the DOD IG, the GAO, and the Congress. Government *and* industry managers hold strong negative views about what they see as unpredictable and at times redundant oversight by individuals within these organizations. The consistency among the views of government and industry managers is extraordinary. [The number of government personnel (not counting DPRO or program office personnel with permanent plant badges) who visited major defense plants during fiscal year 1994 ranged from 4,000 to 38,000 person/days per contractor.] (source: DCMC records for FY94).

One government manager expressed a view echoed by others:

Higher-level reporting requirements are basically a reflection of the personality of the decision maker. Since decision makers frequently change, so do requirements. Twenty years of material acquisition experience has led me to conclude that the less visibility a program has, the more likely it is that the program will succeed.

It should be pointed out that fewer than ten of the 80 managers interviewed were from oversight organizations, and more than half of these ten were from the military services. Consequently, the views of much of the oversight community have not been represented adequately in this study. We believe that presenting those views would be useful and we hope to do so in the near future.

At this point, however, it can be said that oversight by agencies outside the program office and the DPRO is clearly perceived by government program offices, DPROs, and contractors as excessively burdensome. At times, this oversight is viewed as an effort to collect information to enable each higher level to be prepared for any question that may be asked about a program. When the oversight occurs from outside the Defense Department it is seen, at times, as a search for information that can be portrayed, with the benefit of hindsight, as describing inappropriate decisions or actions by the military services.

A sampling of **government manager** views is presented below.
(A complete set of comments on this topic is contained in Appendix B, Part 3.)

Our program has been plagued by continual "tinkering" with its budget; constantly changing technical requirements; insistence on second sourcing; and what seems to be almost constant oversight and micromanagement at levels having no accountability for the success or failure of the program.

We have our own [name deleted] way of collecting costs. But we have to pay the contractors \$6,000,000 to translate cost information into categories that OSD wants for the CAIG.

The OSD staff is often looking for information. They will send me a letter or often make a telephone call. They usually ask questions about the status of the schedule, cost, and technical performance. They want to know as much as possible.

External change is constantly affecting our program. Sources of external change range from senior leadership, to comptroller, to OSD staff, to Congress, to related programs.

When we go to the Pentagon for a program review, there are lots of requests for technical information. The people at each higher level want to be seen as being able to answer every question. In reality, the contractor needs to supply every answer.

OSD does not seem to know how much preparation time is required for us to go to OSD. We have to pre-brief the PEO, then the Army staff, then the 2-stars in the Pentagon, then the 3-star at the Department of the Army, then OSD. It's easy for OSD to say: "Come on in and tell us about X." But a formal OSD review includes every one of the OSD staff organizations – all the staff agencies: the CAIG, the Comptroller, the testers, PA&E, P&L, Policy, and often the Joint Chiefs.

If we include something negative in a report going up the chain and it falls into the hands of the analysts, they will be all over us asking: "What is happening? Why is it occurring? What is being done about it? When will it be corrected?"

The program manager often does not have time to manage his program. My PEO has been very good at keeping Congress at bay. But the GAO has been in my program office since two months after I was assigned to be program manager. They live here, looking at program problems or looking at next year's budget. Now they are about to begin a study of smart munitions. It takes a lot of my time to service them.

If you ask me how to reduce oversight of industry, I'd say: "Reduce the size of the staffs in the Pentagon. If the people and offices exist, people will always find data to collect and things to do with it."

A significant problem in the current defense acquisition process is that the government program manager is asked to obtain information to satisfy
-the systems command,
-the Service headquarters,
-OSD, and
-Congress.

On Air Force unclassified space programs, many organizations are involved in oversight, each having different incentives. They include: Air Force Space Command, Space and Missile Systems Center, the Navy, the Ballistic Missile Division, the Army Research Projects Agency, the Army, the National Reconnaissance Office (NRO), and Program Executive Officers (PEOs). The various parties involved have different ideas as to the appropriate space architecture. By the time one obtains a consensus required for the DAB process, a program is watered down and considerable time has passed.

We need some oversight. The fact is that the DOD IG does save the taxpayer money. But there is too much oversight: AAA, GAO, DOD IG, DCAA, CBO. The oversight is all done in response to something that went wrong in the past. So oversight grows and grows and grows.

The current DAB process does not work. It requires too many briefings and far too much analyses and paperwork, much of which is outdated by changes to the program no more than a few weeks after the briefing is presented to the Under Secretary of Defense.

The government program manager's superiors all want to massage the data.

In 1993, I briefed my program seven times in the Pentagon. A serious problem is that the DOD programming process is separated from the budget process.

People in the service headquarters and OSD seem to have little understanding of the effects their budget manipulations can have on existing liabilities and contracts.

Unless Congress cuts back on the Inspector General and GAO requests, it is unlikely anything will happen here. Given the way the Congress acts, the only solution to the problem for the Defense Department is to have a strong and complete police force to watch the acquisition process. The process is so politicized that no one in the Defense Department wants to hear bad news.

A majority of government managers, joined by most industry managers, expressed the view that there were too many government oversight organizations outside the program management office and the DPRO. They pointed out that unless the number and/or size of these organizations is reduced there is little likelihood of achieving a reduction in the onerous aspects of government oversight.

One well-known industry manager made the interesting point that reducing government oversight would be greeted with mixed reactions by a number of defense contractors:

Let's say I go to one of our large subsidiaries and I say I want to put them on a commercial footing where they really do prize the value they produce, and get the customer the hell out of evaluating how well they do their business. What do you think they would say? The senior executives of [company name deleted] would be very much against it, I know. They have structured themselves with a comparative advantage of being able to comply with government regulations. It does place them in a terrible position with respect to being efficient. But it is worth a lot to them in terms of being able to comply with the government.

So even though the company program manager somewhere down in a division will scream and yell about burdensome government oversight, it's still clear that our profit is paid to us as a percentage of costs. We don't want to reduce the costs.

CONCLUSIONS AND RECOMMENDATIONS ON GOVERNMENT OVERSIGHT

Oversight is necessary when dealing with public funds, but excessive, uncoordinated oversight is wasteful and burdensome for government and industry alike. Excessive oversight also encourages unnecessary confrontation and suspicion between government and industry. The lack of credible information on program status, described in issue #1, has contributed to increased oversight by the Congress, the General Accounting Office, the DOD Inspector General, and the staffs in the service headquarters.

Virtually all government and industry acquisition managers described time-consuming, costly, and at times redundant oversight by organizations outside the program management office and the DPRO. At times, this outside oversight and review is motivated by a conscientious attempt to add value. However, the large number of oversight managers between the level of the service program manager and the Under Secretary of Defense results from an effort to collect information to enable each higher level of management to be prepared for any questions that may be asked about a program.

RECOMMENDATION: The Secretary of Defense should direct the DOD oversight organizations cited above to reduce their oversight in those situations where a contractor and government program office can demonstrate that they have established a reliable process for reporting program status and realistic estimates to complete.

RECOMMENDATION: The Under Secretary of Defense (A&T) should direct that all government oversight contacts with a program office and its contractors be coordinated through a position to be designated within the Office of the Under Secretary of Defense (A&T).

RECOMMENDATION: The Under Secretary of Defense (A&T) should explore the causes of exten-

sive GAO oversight audits and correct their causes wherever possible.

RECOMMENDATION: The Secretary and Under Secretary of Defense (A&T) should take strong action to defend program managers from inappropriate interference by outside organizations and condemn the use of hindsight knowledge to criticize program management performance.

IV
PRACTITIONER VIEWS ON
QUALIFICATIONS AND TRAINING
OF GOVERNMENT ACQUISITION MANAGERS

ANALYSIS OF
INTERVIEW COMMENTS

During the past several years Congress and the Defense Department have adopted a number of steps to improve the qualifications of government acquisition managers. The Defense Acquisition Workforce Improvement Act (DAWIA) requirements have been established for certifying program management at levels I, II, and III. Level I requires one year of program management experience plus two weeks' training in the fundamentals of systems acquisition management. Level II requires two years of acquisition experience, at least one year of which must be in program management, plus additional training in the four-week intermediate course in systems acquisition. Level III requires four years of acquisition experience, of which at least two years must be in a systems program office or closely related office such as a dedicated matrix support office, a PEO office, or a DCMC program integrator office. It also requires attendance at the 14-week Advanced Program Management Course. Beginning in 1995, prospective program managers will also be asked to attend a four-week Executive Program Management course before assuming responsibilities for a major program.

Despite a broad definition of "acquisition experience," (approximately 130,000 positions in requirements, acquisition and logistics qualify as professional acquisition assignments) the enactment of DAWIA could be the beginning of a great success story and a revolution in the defense acquisition culture. Based on the views expressed by acquisition practitioners, however, serious deficiencies continue to exist in acquisition qualifications, four years after the enactment of DAWIA. If the required acquisition experience were limited to work directly involved with the development and production of defense systems by contractors, acquisition experience requirements would be more meaningful.

Government managers' lack of knowledge of industry operations was mentioned frequently by government and industry practitioners. The DAWIA-required levels of experience are considered seriously inadequate for the demands of managing large engineering development and production programs. Government and industry practitioners perceive a pressing need for carefully programmed acquisition career assignments comparable to those provided for combat arms officers.

This section of the report, dealing with the qualifications and training of government acquisition managers, is organized under seven topics:

- A. Acquisition Career Issues
- B. Knowledge of Industry Operations
- C. Acquisition Experience
- D. Promotion Opportunities
- E. Stability in Assignments
- F. Acquisition Training
- G. Conveying Lessons Learned

Each topic includes a sampling of interview comments. The complete set of practitioner comments on acquisition qualifications and training is contained in Appendix B, Parts 4 and 5.

A. ACQUISITION CAREER ISSUES

One **government manager** expressed sentiments about career issues that were echoed by several others:

The root causes of most schedule delays are: lack of qualified personnel on the government side to fully direct and oversee the contractor, chronic understaffing with inexperienced government people, frequent job changes by good government civilians seeking promotions, excessive reporting requirements, and excessive auditing by GAO, DOD IG, and the Service auditors.

Most **government managers** commented that they were not sufficiently prepared for their jobs. For example, they often described their lack of familiarity with lessons learned on prior programs (indeed, unlike the training of combat arms officers, a lack of any mechanism for capturing and communicating lessons learned); unfamiliarity with industry practices; and insufficient skill in using the tools of financial management.

Several government managers explained the lack of qualified acquisition managers by observing that "the business of the services is war fighting. Everything else is peripheral." Most government managers hold the view that too often the military assignment system is designed to bring value to the person assigned to the job, rather than to bring professionalism to the job. They observed that military officers with backgrounds primarily in military operations usually do not understand the necessary complexity of the acquisition process, the steps involved in managing a large engineering development program, or the need for extensive training and experience prior to assignment as government program manager. Military commanders who oversee the acquisition systems commands with their functional support organizations (e.g., contracting, engineering, logistics, etc.) are described as often having little acquisition experience.

Defense industry managers tended to express views similar to those expressed by government managers. Several industry managers asked the question:

In the Defense Department they don't put logisticians in charge of a fighter wing. Why do they put a fighter pilot in charge of managing an acquisition program?

Two industry managers commented:

The Air Force requires 14 months' training to put a pilot into a F-16. Yet they put a program manager in charge of a five-billion dollar program with only a four-month accelerated course at DSMC.

A big problem today is that the government still tries to run the acquisition process with too many amateurs.

Another observed:

I hate to have a centralized acquisition corps in DOD, but it is far better than the way they are doing it now.

Government and industry managers alike described a pressing need for a more professional acquisition corps. One military officer expressed a view echoed by most industry managers:

You can't keep running blue suiters and green suiters in and out of acquisition and creating havoc. DOD needs professionals, properly trained, with a clear career path so they know they have somewhere to go.

Government and industry managers agree that as military officers move from the operational side to the acquisition side of the service, they no longer find the same quality of career management, practical training, and simulation, so well known on the operational side.

One defense industry manager remarked:

The military services still do not see management skills as vital to their future. If there is to be real acquisition reform, the military will have to treat the acquisition assignment more seriously, as a career assignment.

**B. KNOWLEDGE OF
INDUSTRY OPERATIONS**

A sampling of comments by government managers concerning their lack of knowledge of industry operations takes the form:

Government program managers almost invariably do not have business experience.

Government program managers usually have no empirical knowledge of what the contractor program manager and the company have to go through and what they will do to maintain the company.

Education with industry is very important to someone going into a program office.

It is important that someone in the government program office understand cash flow analysis and the contractor's motivation.

Government people often don't understand what they are asking contractors to do.

The DPRO should at least be well qualified as a contract manager and familiar with contractor operations.

C. ACQUISITION EXPERIENCE

A sampling of comments by **government managers** concerning appropriate acquisition experience for government program managers is included below. (See also Appendix B, Part 3.)

You can put the brightest guy you have in acquisition and if he does not have experience, he won't know where to find the handles.

The best training for a program director is to work in a program office and become a deputy program director before he becomes program manager.

I was not qualified to be a program manager when I was assigned to the job. I should have been a deputy program manager or at least have worked in a program office.

A program manager needs to be well experienced in acquisition and in understanding contractor operations.

Many of the senior officers in acquisition positions in the Pentagon usually have operational experience, not acquisition experience.

Government program management is so demanding that if you put rookies into the job you have a formula for disaster.

Program managers should be experienced in program offices before they become program managers.

Here, too, the views expressed by **defense industry managers** were similar to those expressed by government managers. Industry managers repeatedly cited the need for the Defense Department

to place higher priority on establishing a professional acquisition career. They believe that the military services need "to make sure that military and civilian personnel have the practical training and preparatory assignments they need prior to taking on program management responsibilities." Most industry managers believe that a government program manager needs to have a sufficiently strong technical background to be familiar with the terms and concepts employed in engineering development programs. They also believe it is important for government managers, as it is for industry managers, to have a series of assignments in acquisition with progressively greater responsibilities to provide the skills and background needed for making sound judgments when faced with the dilemmas that occur on large engineering development programs.

The follow-up questionnaire asked government and industry managers for their views about the adequacy of acquisition experience for defense decision makers above the level of the program executive officer (PEO). A sampling of the written comments is contained below. See also Appendix B, Part 4.)

The lack of experience of senior management at the political level is a serious problem. Most appointees lack skills, experience and training to perform effectively. The problem is made worse by huge time gaps in filling key positions.

Most of the staff members at the Department of the Army [in the Pentagon] and in the Office of the Secretary of Defense have very little actual project office experience.

The service acquisition executives and the Defense Acquisition Executive are political appointees. Pentagon career staffers have rarely been in program offices, other than to visit.

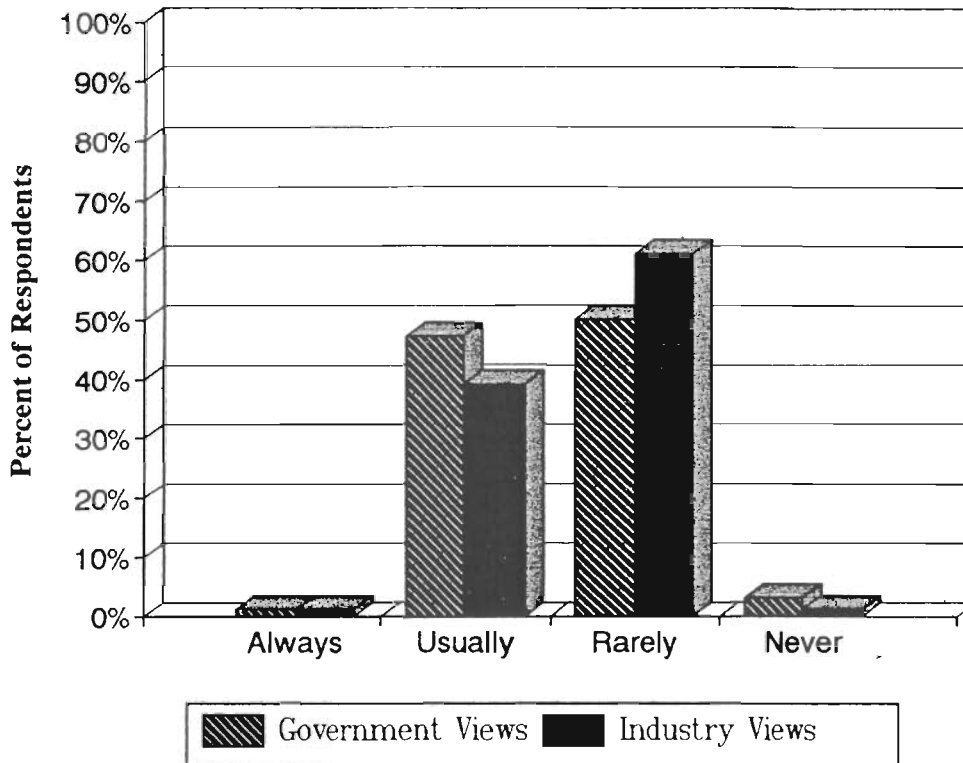
The experience of defense decision makers above the level of the PEO varies all over the lot; it is too variable to make one generalization.

Defense decision makers above the level of the PEO generally have very short tenures, leaving little opportunity to gain needed experience.

The lack of industrial experience for decision makers above the level of the PEO is appalling. Their backgrounds fail to meet the letter or the intent of legislation passed since 1985, which in many instances, "created" their jobs. Too many are from congressional staff backgrounds with no experience in decision making or accepting responsibility for their actions. They do not have a clue about the nature of their jobs.

The following five pages contain graphs highlighting the views of government and industry managers on topics of acquisition experience and skills, as contained in questionnaire responses.

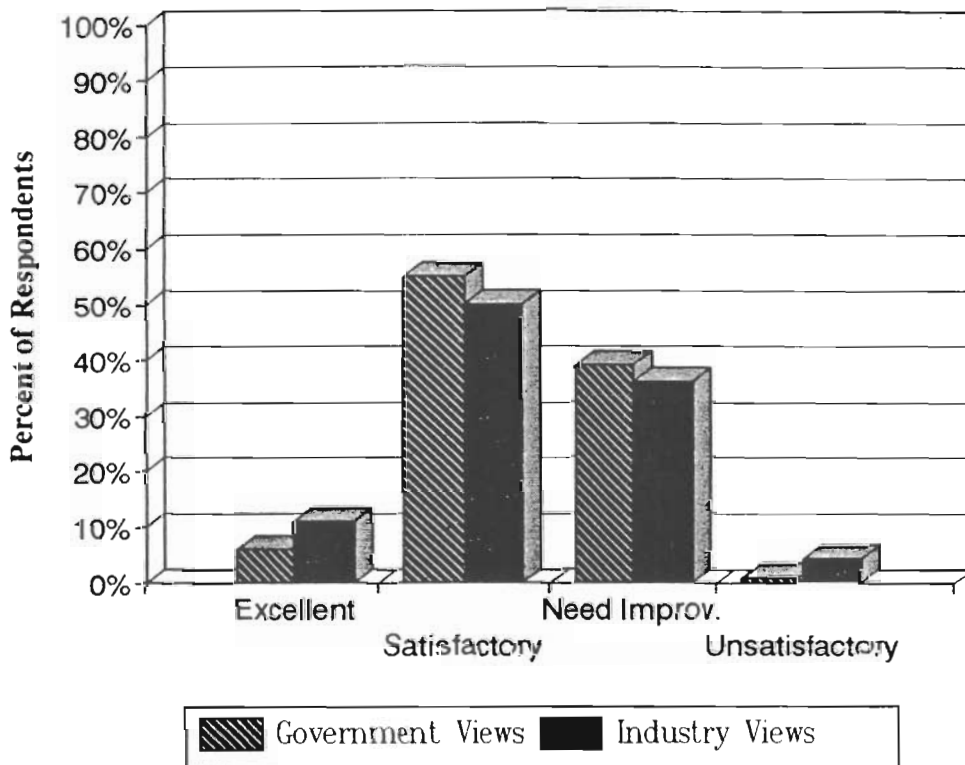
DO DEFENSE DECISION MAKERS ABOVE THE LEVEL OF THE PEO HAVE SUFFICIENT ACQUISITION EXPERIENCE FOR THEIR JOBS?



	<u>Govt.</u>	<u>Indus.</u>
Always	0%	0%
Usually	47%	39%
Rarely	50%	61%
Never	3%	0%

Commentary: Defense decision makers *above* the level of the PEO did not fare well in the survey. Only 47% of the government managers and only slightly more than one-third of the industry managers believe that senior defense decision makers above the level of the PEO have sufficient acquisition experience for their jobs. Half the government managers and 61% of the industry managers believe that senior defense decision makers rarely have sufficient acquisition experience for their jobs.

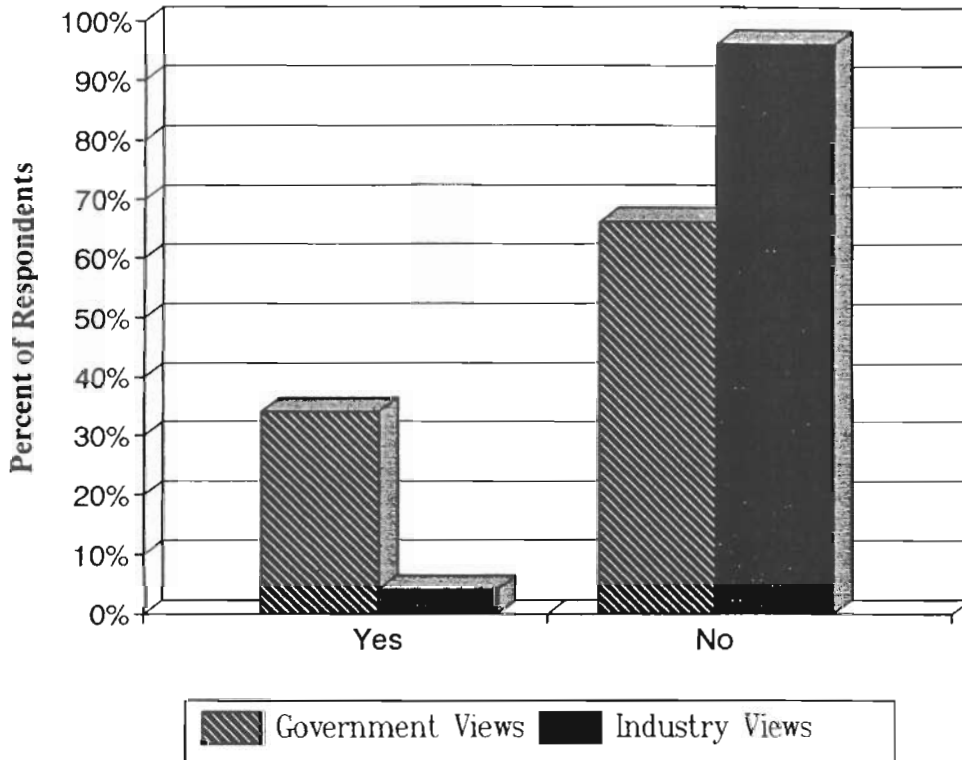
MOST GOVERNMENT PERSONNEL ASSIGNED TO DEFENSE ACQUISITION PROGRAMS ARE EVALUATED AS HAVING THE FOLLOWING LEVEL OF UNDERSTANDING OF PROGRAM TECHNICAL MATTERS:



	<u>Govt.</u>	<u>Indus.</u>
Excellent	6%	11%
Satisfactory	55%	50%
Needs Improvement	39%	36%
Unsatisfactory	0%	4%

Commentary: Government and industry managers believe that most government personnel assigned to defense acquisition programs have the knowledge ("excellent" or "satisfactory") required to understand program technical matters. Nearly 40% of government managers and industry managers believe that improvements are needed.

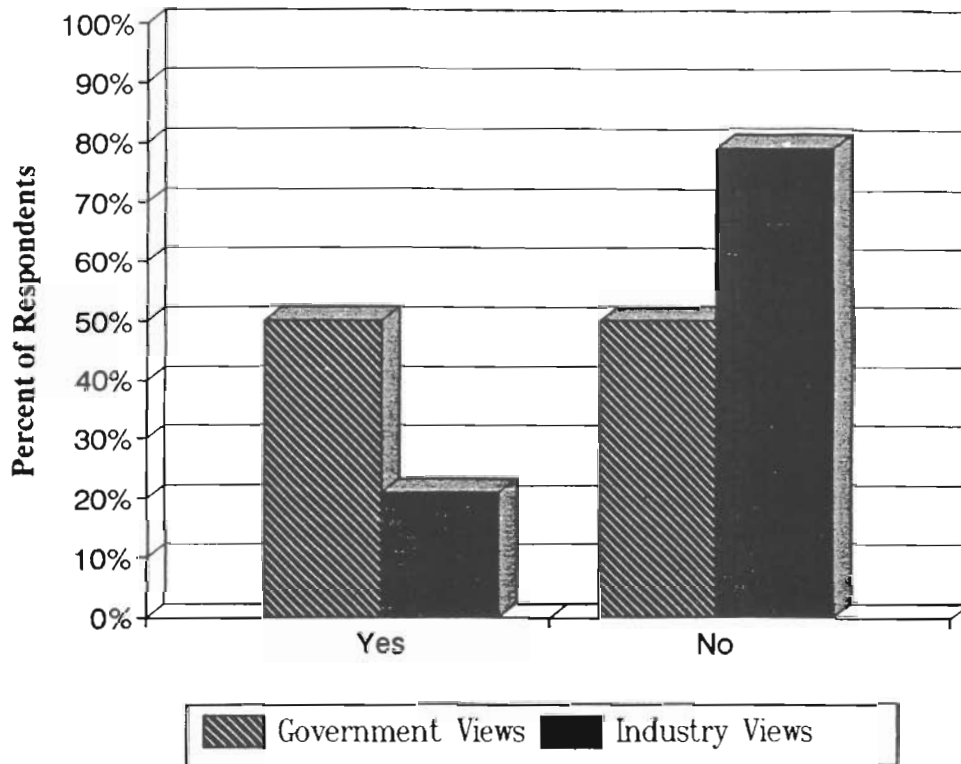
DO MOST MILITARY PERSONNEL ASSIGNED TO ACQUISITION PROGRAMS HAVE SUFFICIENT EXPERIENCE IN MANAGING TECHNICAL INDUSTRIAL PROGRAMS TO PERFORM THEIR JOBS WELL?



	<u>Govt.</u>	<u>Indus.</u>
Yes	34%	4%
No	66%	96%

Commentary: Two-thirds of the government managers and virtually all of the industry managers (96%) believe that military personnel assigned to acquisition programs do not have sufficient experience in managing technical industrial programs to perform their jobs well.

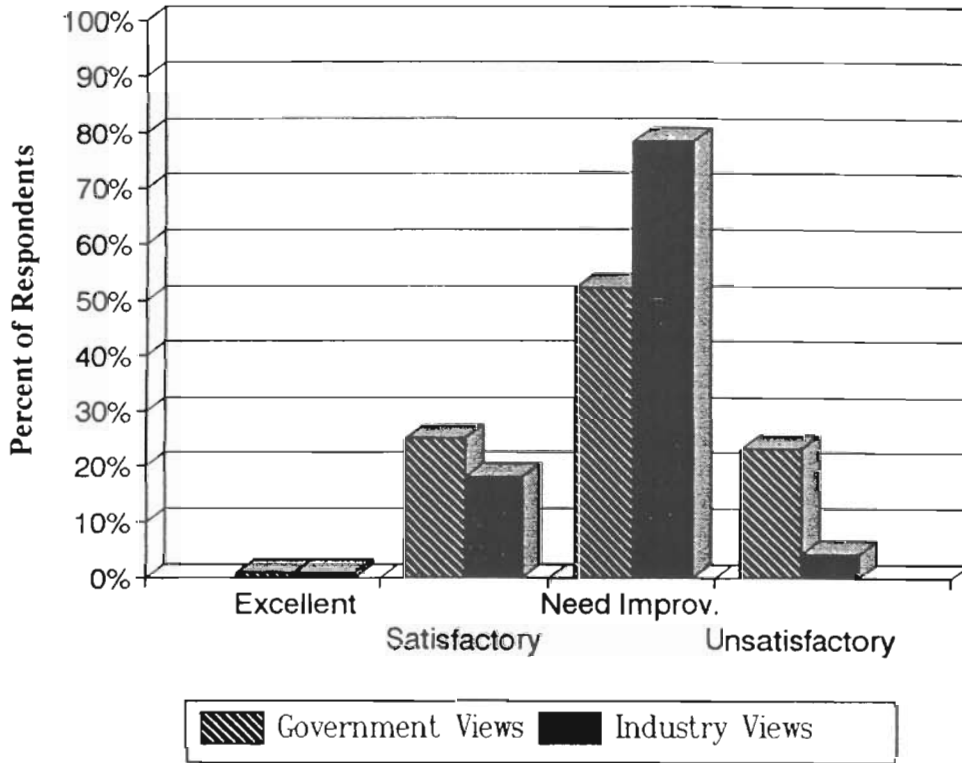
DO MOST CIVIL SERVICE PERSONNEL ASSIGNED TO ACQUISITION PROGRAMS HAVE SUFFICIENT EXPERIENCE MANAGING TECHNICAL INDUSTRIAL PROGRAMS TO PERFORM THEIR JOBS WELL?



	<u>Govt.</u>	<u>Indus.</u>
Yes	50%	21%
No	50%	79%

Commentary: Government and industry managers rate civil service personnel in acquisition somewhat higher on experience than they do military personnel. Nonetheless, 79% of the industry managers and half the government managers believe that civil service personnel assigned to acquisition programs do *not* have sufficient experience in managing technical industrial programs to perform their jobs well.

MOST GOVERNMENT PERSONNEL ASSIGNED TO DEFENSE ACQUISITION PROGRAMS ARE EVALUATED AS HAVING THE FOLLOWING LEVEL OF SKILLS REQUIRED FOR ESTIMATING COSTS TO COMPLETE THEIR PROGRAMS:



	<u>Govt.</u>	<u>Indus.</u>
Excellent	0%	0%
Satisfactory	25%	18%
Needs Improvement	52%	78%
Unsatisfactory	23%	4%

Commentary: Government managers evaluate government skills for estimating costs to complete their programs as no better than "satisfactory" (25%) or "needing improvement" (52%).

Industry managers are even less complimentary. Only 18% of them evaluate government skills for estimating costs to complete as satisfactory; 78% evaluate the skills as needing improvement; and 4% evaluate them as unsatisfactory.

D. PROMOTION OPPORTUNITIES¹

Most government managers do not view acquisition assignments as a means of enhancing their opportunities for promotion to higher rank. They have been disappointed with the lower promotion rate for senior acquisition officers compared to promotion rates for combat arms officers of comparable rank.

For fiscal year 1994, promotion rates to the rank of commander (Navy) / lieutenant colonel (Army, Marine Corps, Air Force), contained some good news and some bad news. Acquisition promotion rates *within* the zone for all military services were higher than the respective service-wide promotion rates. Acquisition officers *above* the zone were promoted to Commander / lieutenant colonel at a rate higher than the service-wide rates in the Army and Navy, but at lower than the service-wide rates in the Marine Corps and Air Force. Acquisition officers *below* the zone (officers singled out for early promotion) in the Army were promoted at a rate lower than the service-wide rates. In the Navy they were promoted the same as the service wide rate, but in the Air Force they were promoted substantially above the service-wide rate.

The promotion rates of acquisition corps officers to the rank of captain (USN) / colonel (Army, Navy, Marine Corps) *within* the zone were higher than the service-wide rates in the Army, Navy, and Air Force. In the Marine Corps the promotion rate was substantially lower than the service-wide rate. Comparable promotion rates for acquisition officers *below* the zone were disappointing: In the Army, Navy, and Air Force they were lower than the service-wide rates. There were no promotions to the rank of colonel in the Marine Corps.

The message from fiscal year 1994 promotions of acquisition officers to General/Flag officer (selection to O-7) was similarly discouraging. In the Army, the acquisition corps promotion rate was one-half the service-wide rate. In the Navy, the acquisition corps promotion rate was only slightly higher than one-half the service-wide rate. These rates were lower than the prior year, when the Army acquisition corps promotion rate was only 66 percent of the service-wide rate and the Navy acquisition corps rate was equal to the service-wide rate. Comparable data was not available from the Air Force.

¹ Promotion rates were obtained from the Office of the Secretary of Defense.

The negative messages that the Army and Navy promotion rates send to acquisition officers are inconsistent with the need for outstanding officers to handle the complex, highly-technical and demanding nature of acquisition management tasks. A mid-career military officer serving as a DPRO Commander observed:

I would counsel a junior officer not to follow in my footsteps. The service does not value this job.

A flag officer observed:

The acquisition workforce is now in a free fall. No one is managing it. No one is in charge of it. Considering the large size of the personnel reductions, the workforce is scared.

A flag officer with extensive experience in acquisition expressed the view that senior operational officers in the Army, Navy, and Air Force would not adopt the personnel changes necessary to create a genuine professional acquisition corps. He concluded:

The Under Secretary of Defense for Acquisition should tell the services: "I want you to give me operational control and detach to me the people for the acquisition corps that you need. These people can spend four to eight years in the service first, but once the decision is made for the person to go into acquisition, responsibility for assignments, training, and promotions should transfer to the USD(A&T). And whatever the ratio of promotions is for each rank in the Army, Navy, Air Force, the same promotion ratio will be maintained for the acquisition corps."

One government manager commented that the promotion problem is not limited to the military side of the acquisition workforce. He pointed out that civil service personnel in acquisition assignments are frustrated by the lack of opportunity to move into positions of major responsibility. (See Appendix B, Part 4 for additional comments.)

Defense industry managers expressed the view that the promotion rate for government acquisition managers should be at least as attractive as it is for combat arms commanders. Otherwise the acquisition field will not attract outstanding people. One manager observed that a symptom of the problem is that the Navy considers acquisition a career-broadening assignment for a line officer.

Another industry manager commented:

Government program managers need to have at least the same chance at promotion they would have if they were in operations. The services need to select truly outstanding people to be in the acquisition corps.

E. STABILITY IN ASSIGNMENTS

Although recent acquisition assignments for military officers last somewhat longer (35.7 months) than in the 1980s, the 35.7 month average tour is 14% shorter than the 41.6 month average tour in fiscal year 1993 and 18% shorter than the 43.7 month average tour in fiscal year 1992. Short-term assignments continue to cause instability and unnecessary changes to acquisition programs. One reason for the shorter tours is the high percentage of retirements of military officers from program management and DPRO assignments. Another cause that accounts for a small amount of personnel turnover occurs when a program manager is promoted and then does not remain in the program management position after his promotion. A third reason cause is described as "changes for the good of the service."²

Comments by government managers on this topic include the following. (See also Appendix B, Part 4.)

If we are going to bring about real change, there needs to be more stability in military acquisition assignments. Assignments need to be longer than four years to bring about changes.

Rotating military officers in and out of operational assignments makes it difficult or impossible to develop the needed acquisition experience.

The assignment duration for program managers remains far too short. If it takes a decade to complete a program, a program manager should be assigned for a decade. If he does a good job, he can be promoted on the job.

² Source: Office of the Secretary of Defense

Virtually all defense industry managers were troubled by the short-term assignments and inexperience of government program managers. Although industry managers, like their government counterparts, acknowledge some improvement in recent years, they conclude that a major culture change is required before the military services will have in place an acquisition corps with basic professional capabilities and with the needed stability in assignments. A sampling of comments by defense industry managers is presented below:

We are now working on the fourth Navy program manager on our program in seven years. All but one of the four were not well prepared for the program management job. The other three had to rely on functional specialists for all the contractor oversight judgments.

Programs take so long that there may be five or more program directors on a development program. There is very little continuity in program offices, and program office capabilities are getting less and less.

Today the stated practice is to keep government program managers on programs until the next milestone. But they can still rotate prior to the milestone. The only way to deal with this problem may be to have more civilian program managers and to think of a program management assignment as a career path -- possibly with a combat arms officer assigned as support to the program management office (to represent the user).

There is a problem when the commander who makes a decision is not in the job long enough to be accountable.

In dealing with the military customer, I know that the government program manager will be gone in two to three years.

Today the government attitude seems to be: "Colonel X is doing a good job as program manager, let's move him out of that job."

In our company, we usually assign people to a program for the life of the program.

Government program managers should have experience and training via repeat assignments in program offices. The turnover in program managers is not as bad as it was a decade ago, but it remains too high.

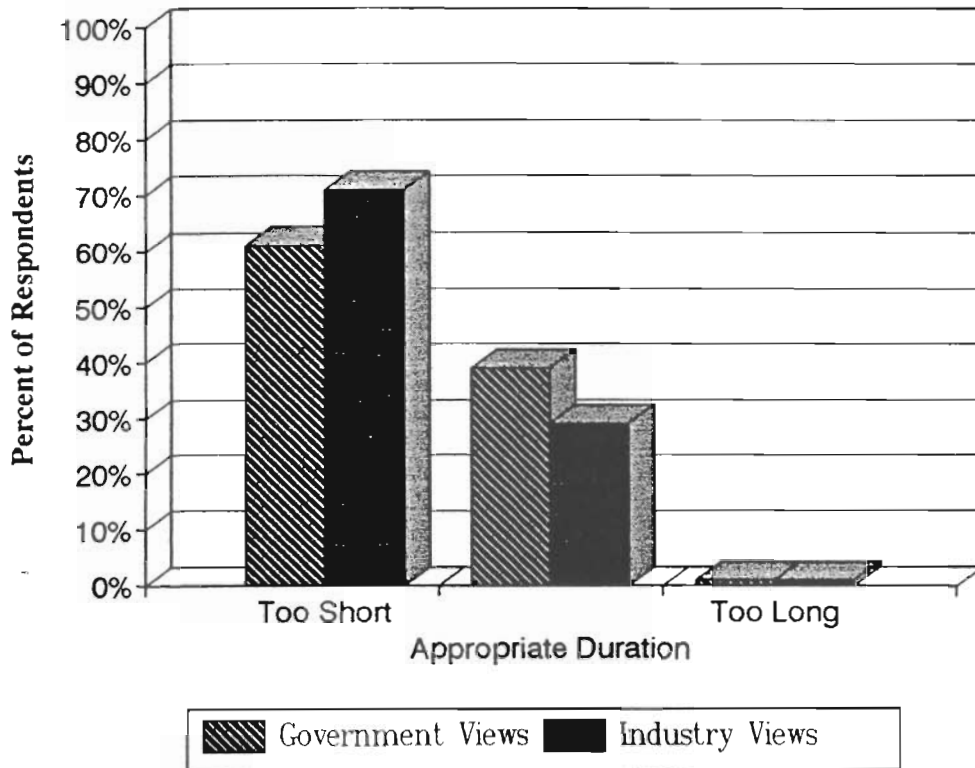
Military personnel turnover is still much higher than makes sense for the experience one needs to manage complex development programs effectively.

Government specifications and regulations are written in a rigid way because personnel turnover is so high. In a high-turnover environment you need desk procedures: -Do this, then do that. -Do it by the numbers.

Short duration assignments on major programs is a major problem. There is a lot of fumbling between one phase with one program manager and one phase with another program manager.

The following three pages contain graphs highlighting the views of government and industry managers on the topic of stability in assignments, as expressed in the responses to the questionnaires.

DO MILITARY OFFICERS REMAIN IN THEIR ACQUISITION ASSIGNMENTS FOR AN APPROPRIATE LENGTH OF TIME?

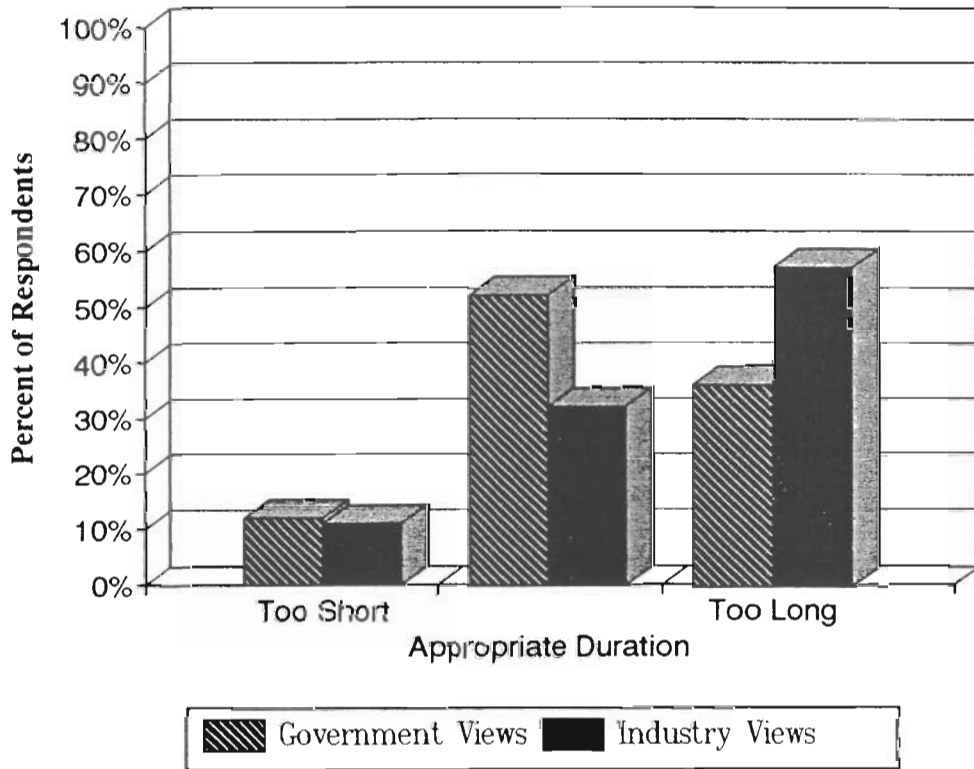


	<u>Govt.</u>	<u>Indus.</u>
Too short a period	61%	71%
An appropriate period	39%	29%
Too long a period	0%	0%

Commentary: Nearly two-thirds of the government managers and 71% of the industry managers believe that military officers change jobs too frequently to provide the stability necessary for well-managed programs.

Government and industry managers believe that the ideal acquisition assignment duration for military personnel is between four and four-and-a-half years.

DO CIVIL SERVICE PERSONNEL REMAIN IN SPECIFIC ACQUISITION ASSIGNMENTS FOR AN APPROPRIATE LENGTH OF TIME?

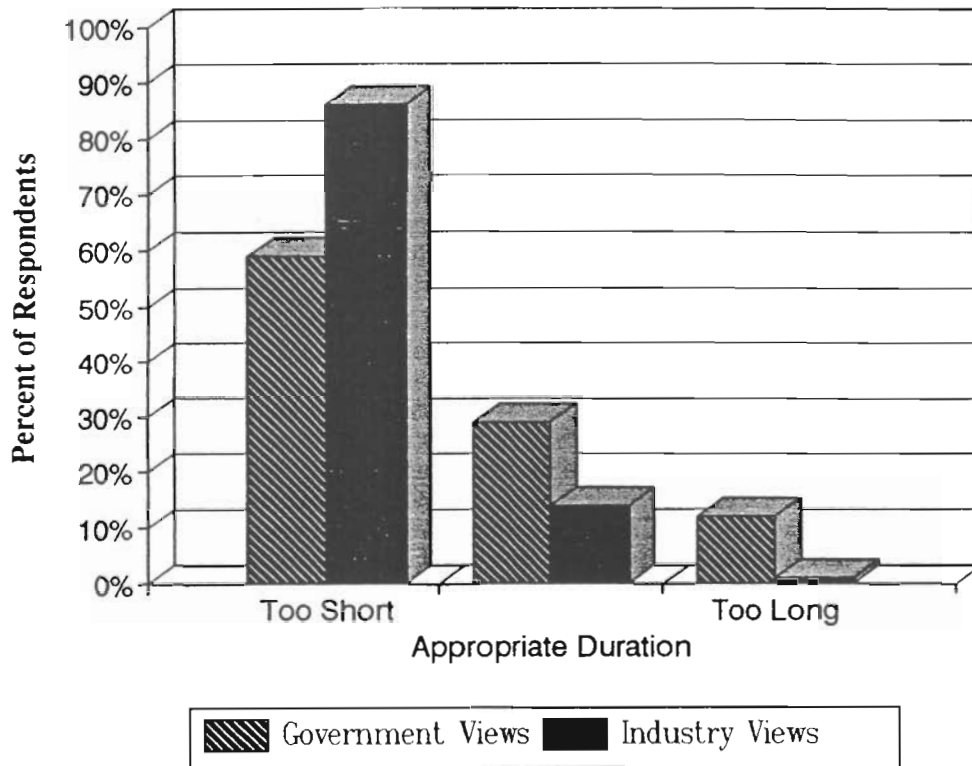


	<u>Govt.</u>	<u>Indus.</u>
Too short a period	12%	11%
An appropriate period	52%	32%
Too long a period	36%	57%

Commentary: Thirty-six percent of the government respondents and 57% of the industry respondents believe that civil service personnel assigned to acquisition programs remain in their jobs for too long a period of time. Only 12% of the government respondents and 11% of the industry respondents believe civil service personnel change jobs too frequently to provide the stability needed for a well-managed program.

Government and industry managers believe that the ideal acquisition assignment duration for civil service personnel is between five and five-and-a-half years.

DO DEFENSE DECISION MAKERS ABOVE THE LEVEL OF THE PEO REMAIN IN THEIR JOBS FOR AN APPROPRIATE LENGTH OF TIME TO PROVIDE THE STABILITY NECESSARY FOR A WELL-MANAGED ACQUISITION PROCESS?



	<u>Govt.</u>	<u>Indus.</u>
Too short a period	59%	86%
An appropriate period	29%	14%
Too long a period	12%	0%

Commentary: Eighty-six percent of the industry managers and more than half the government managers believe that DOD senior defense decision makers above the level of the PEO change jobs too frequently for a well-managed acquisition process.

F. ACQUISITION TRAINING

Defense acquisition training is determined by functional boards established by the Office of the Secretary of Defense. The Defense Acquisition University (DAU), working with the functional boards, informs the Defense Systems Management College (DSMC) and 15 other schools associated with DAU of the topics to be taught and, to some degree, how they should be taught. As such, individual schools have limited control over their curricula. For example, the functional specialists in the military services and the Office of the Secretary of Defense assemble an extensive list of topics (including rules, regulations and reporting procedures) to include in courses such as the Program Management Course at DSMC. Repeated requests by functional specialists in the Pentagon that more time be given to each functional area, coupled with the reluctance of the military services to send military officers and civilians away from their duty station for longer than 20 weeks (soon to be reduced to 14 weeks), places immense pressure on the DSMC faculty to crowd more *facts* into a shorter time period, reducing the opportunity for building management skills through student discussions, exercises, and simulations.

Throughout the discussion of government acquisition training, government managers frequently contrasted the preeminent practical training of combat arms personnel, using lessons-learned exercises and simulations, with the minimal use of comparable tools in acquisition training. More than three-quarters of the government managers and the same proportion of defense industry managers cited serious deficiencies in the practical training of government acquisition managers. The mystery to most managers is why the military services, superbly accomplished in training combat arms personnel, fail to bring the same quality of training to defense acquisition. A sampling of comments by defense industry managers is included below. (The complete set of practitioner comments on acquisition training is contained in Appendix B, Part 5.)

The rules say that every 18 months a tank battalion should rotate through Ft. Irwin for training. Something comparable to that should happen in the field of acquisition. We need to collect the lessons learned in acquisition and communicate them to acquisition managers in a way analogous to the way we train tank operators. What stops us from doing it?

We need a continual training process for acquisition people. OSD needs to be tougher on granting waivers for DAWIA requirements.

We don't need more statutes or more regulations. We need better education of the people who implement the statutes and regulations.

We need to train people who can operate in the trenches of acquisition and who have practical training for dealing with the crises that arise in the trenches.

On the operational side, the military services train and train, because lives are at stake. On an acquisition program it is [seen as] only a few hundred million or a billion or two at stake. People don't translate program delays of one or more years or large cost increases into potential lives lost.

Too many people in defense acquisition are doing things without understanding what they are doing or why they are doing it.

New regulations and statutes won't bring about ten percent of what needs to be done. The real problem is realistic, practical training.

**G. CONVEYING
LESSONS LEARNED**

Government managers referred frequently to the "rules and regulations" content of much of their acquisition training. In light of the formidable challenges and unexpected dilemmas associated with large engineering development programs, government and industry managers alike cited the need for more case discussions of lessons learned with peers and subject-matter experts, more practical exercises, and more simulations, instead of lectures and canned vugraph presentations. A sampling of comments by **government managers** is contained below.

There needs to be more business training at DSMC, and more practical simulations or drills before a person is assigned to be a program manager on a major program.

There's a problem in the way we train our acquisition people. The vugraph and standard lecture approach is not sufficient.

In acquisition, real life training is not considered essential, as it is for operational assignments. Most acquisition training takes place after a person is assigned to a real job.

The use of lessons learned, or rather the lack thereof, is disgraceful.

If we could figure out how to get the services to send a group of people off to a site and go through simulations and case discussions with people of similar backgrounds, as industry does, we would benefit a lot from it.

In acquisition training today, case studies often become vugraph lectures instead of student discussions.

The fundamental problem is that government managers have not been trained to deal with the situations they encounter in the acquisition process. They need lessons-learned, case studies.

People need to have the chance to walk through the kinds of problems we will face when we deal with a contractor.

You don't pass on lessons learned by writing a report or a book of lessons learned and having people read it. You need simulations or case discussions so people can talk about situations, ask questions, test their ideas, and learn about the alternatives available and what does and doesn't work.

DSMC should collect case studies from the services -- successes, problems, and failures -- describing what people have done and what problems they encountered, and then discuss them in the classroom.

Defense industry managers commented on the need for cases and simulation exercises, similar to the comments made by government managers. A sampling of the industry comments is contained below:

If I were training program managers, I would write out a description of all the major problems that confront program managers. Then I would conduct managed discussions of programs that encounter these problems and I would get them to discuss how people can deal with these problems.

How do we train people to mitigate risk? We train them in what can go wrong; then in what can be done if something goes wrong.

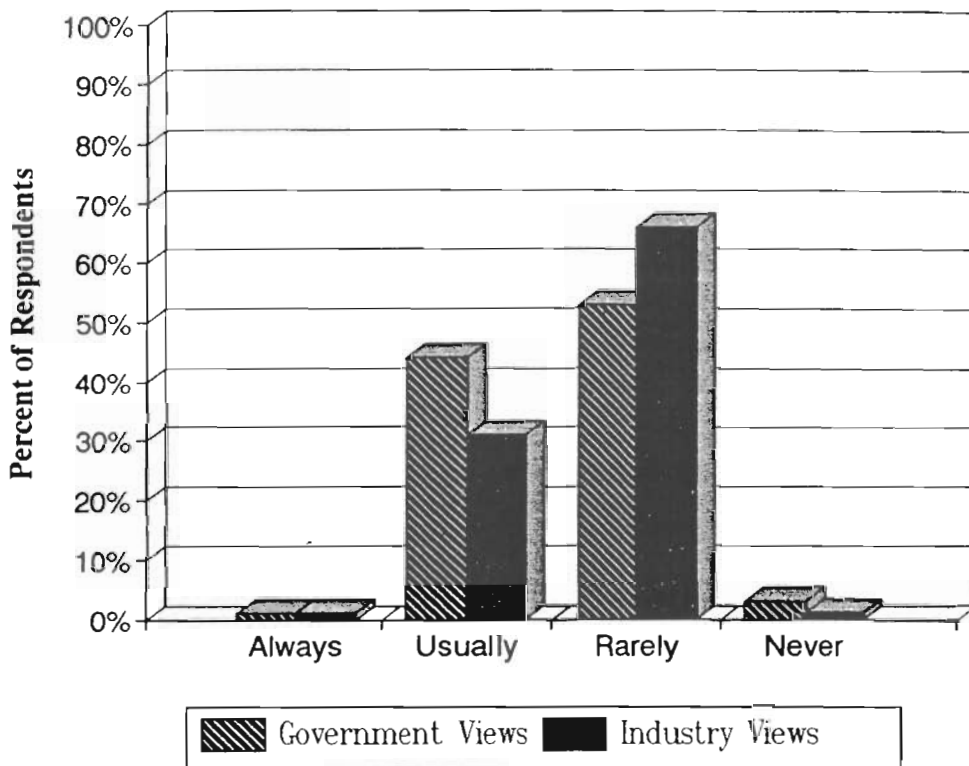
It is one thing to talk about government people behaving differently but it is quite a different thing to give them the skills they need to behave differently under various circumstances.

Government program managers need to be trained to understand the regulations, but they need to understand where the regulations make sense and where they don't, and they need to develop skills in implementing the regulations sensibly and to avoid nonsensical implementations.

Government program managers need to have worked through business simulations and case study decisions as we in business do repeatedly.

The graph on the following page highlights the views of government and industry managers on the lack of familiarity of government managers with lessons learned from prior acquisition programs. (The data were derived from the questionnaires.)

ARE GOVERNMENT ACQUISITION MANAGERS FAMILIAR WITH LESSONS LEARNED FROM PRIOR ACQUISITION PROGRAMS AND DO THEY APPLY THEM TO THE MANAGEMENT OF CURRENT PROGRAMS?



	<u>Govt.</u>	<u>Indus.</u>
Always	0%	1%
Usually	44%	31%
Rarely	53%	66%
Never	3%	0%

Commentary: More than half the government managers (53%) and two-thirds of the industry managers conclude that government managers rarely apply lessons learned from prior programs to current programs.

CONCLUSIONS AND RECOMMENDATIONS ON QUALIFICATIONS AND TRAINING

Culture is the integrated pattern of behavior that reflects an institution's values: how the people in the organization think and how they behave. These values do not come from organization charts or policies, and they do not come from plans and strategies. They come from managers, from training programs, and from incentive systems. Understanding this concept is key to understanding the defense acquisition process and how it operates.

Government and industry managers alike describe a pressing need for a more professional, highly trained acquisition corps. The 1990 Defense Acquisition Workforce Improvement Act (DAWIA) established minimum education, training and experience requirements. Since the passage of DAWIA, the Defense Department has made a number of improvements, but much remains to be accomplished. Experienced government and industry managers believe the standards for program management skills and experience remain far below what is needed. Four years after the enactment of DAWIA, most government acquisition managers and their industry counterparts report that many government managers are not adequately prepared for acquisition assignments. As illustration, they cite lack of familiarity with lessons learned on prior programs; unfamiliarity with industry practices; and insufficient skill in using the tools of financial management. Government and industry practitioners perceive an urgent need for more carefully programmed career management and more practical training comparable to that now provided for combat arms officers and for industry acquisition managers.

Industry managers pointed out that senior military officers in acquisition assignments are usually highly intelligent, great at leadership, and able to get along well with others, but not sufficiently well trained or experienced in acquisition assignments. When they move into acquisition jobs, they often encounter, for the first time in their careers, responsibility without commensurate authority, and a requirement for substantial technical knowledge of engineering development programs. Several industry managers expressed the view that the military chiefs of staff usually do not take acquisition as seriously as they take operations, or for that matter, as seriously as they take the legal corps or the medical

corps in their services--even though the latter two corps, unlike the acquisition corps, come already equipped with trained and qualified forces.

Government and industry managers also believe it is vital that government acquisition managers have a series of progressive assignments, first to small programs, then to larger, more complex programs, as is customary in industry. As a minimum, prospective program managers should have one or more assignments as a program office division chief and/or as deputy program manager, prior to assignment as program manager of a major program. Repeat assignments as program manager should be the rule rather than the exception. During the past two years, the Defense Department, particularly the Air Force, has made a number of significant improvements in acquisition career management. Nonetheless, the Defense Department culture needs to undergo further changes (in assignment duration, promotions, experience and training) to create a truly professional acquisition corps.

Short-term acquisition assignments continue to cause instability and changes to acquisition programs. This in turn creates uncertainty for contractors and clouds accountability for program performance.

Notwithstanding a recent, sharp increase in the number of personnel sent to government acquisition courses, most government and industry managers are disappointed with the quality of government acquisition training. Government managers made frequent references to the heavy emphasis on communicating rules and regulations rather than building business management and judgmental skills in much of their acquisition training. Practitioners expressed a strong need for more practical training in lessons learned, in dealing with the dilemmas encountered in acquisition programs, and in developing skills required to work effectively with contractors, using the tools of program management. Supplying this training does not entail costly or sophisticated computer programs or simulation exercises; it requires the preparation of materials to be read or viewed, and scheduled time for prospective program managers to question and discuss with peers and with experienced acquisition managers typical acquisition problems encountered, and promising approaches to mitigating the harmful effects of problems once they arise.

Fine tuning the current approach to acquisition training will not produce the needed changes. The creation of a professional acquisition corps requires a revolution in acquisition training. The "lecture and vugraph" approach to training has been found wanting in every profession, from medicine, law, and business, to aircraft piloting, professional sports, and combat arms. Professional train-

ing requires the opportunity to question, discuss, and *practice* the skills one is expected to perform in a profession. It also requires that lessons learned from actual experience be collected systematically, communicated, and practiced as part of one's preparation for the profession.

RECOMMENDATION: The Under Secretary of Defense (A&T) should exercise aggressive leadership in career management, creating a truly professional acquisition corps, requiring prospective program managers to have preparatory assignments in which they:

- develop skills in translating military requirements into program specifications, in understanding the reasons for changes in specifications, schedules and funding, and in minimizing these changes; and
- develop an understanding of industry incentives and practices, learning how to deal with situations in which government and industry share the same goals as well as situations in which they have differing goals.

RECOMMENDATION: The Under Secretary of Defense (A&T) should exercise the authority currently vested in his office to:

- Establish incentives (e.g., attractive career development paths and promotion rates at least comparable to those of combat arms) to ensure that the acquisition corps attracts and retains capable, outstanding military officers and civilians with experience commensurate with the technical complexity and major responsibilities associated with managing multi-billion dollar engineering development and production programs.
- Establish and enforce processes to vigorously implement the authorities identified in Paragraph E, DoDD 5134.1, "Under Secretary of Defense for Acquisition (USD(A))," dated September 30, 1992, with particular emphasis on the assignment, reassignment, and training of key acquisition personnel.

RECOMMENDATION: The Under Secretary of Defense (A&T) should direct the Defense Acquisition University (1) to collect lessons learned from prior and ongoing acquisition programs [describing successful approaches, problems, and failed approaches] and (2) to use these lessons learned in practical training programs for prospective program managers. Such programs should also be designed to convey a working knowledge of the ways to conduct effective oversight of contractors without imposing excessively detailed reporting requirements.

BLANK

**DISCUSSION QUESTIONS
FOR INCLUSION IN INTERVIEWS:**

1. How would you describe the role of government program management as distinct from contractor program management? Is the government role usually understood clearly by government managers? If not, in what respects?

2. Is it appropriate and reasonable for system commanders, PEOs and their superiors to tell government program managers that they are "responsible for the success of their programs." In your view is "success" interpreted as getting the program through the acquisition wickets? Or is it bringing in the program on budget and on schedule? or both? If both, which takes priority?

3. A number of individuals today call for cultural changes in defense acquisition management. What do you believe needs to be done to accomplish these changes?

- Should different people be selected to manage defense acquisition?
- Should A/N/AF managers be trained or assigned differently?
- Should A/N/AF managers be evaluated and rewarded differently?

4. Are the bureaucratic risks in government program management sufficiently large as to inhibit the reporting of bad news up the chain of command?

5. Are the rewards in government program management commensurate with the risks?

6. In your view, are the following recommendations sensible? What cautions, if any, would you suggest in their implementation?

- a. government managers should have the freedom to exercise more judgments in the acquisition process.
- b. government managers should favor more performance specifications instead of design specifications.
- c. government managers should take more risks.
- d. government managers should back off from detailed oversight of contractors.
- e. government managers should make more tradeoffs among schedule/cost/tech. performance.
- f. government managers should grant more waivers.

Where they are appropriate, why have these recommendations not previously been implemented?

[end]